COUNTY OF SUTTER
MITIGATED NEGATIVE DECLARATION

PROJECT TITLE: Project #U22-0020 (Hussain)

PROJECT SPONSORS:

Applicant/Owner:
Shafqat Hussain
2026 Nicolas Drive
Yuba City, CA 95993

Project Engineer:
John Mallen, P.E.
MHM Inc.
1204 E Street
Marysville, CA 95901

PROJECT LOCATION: 1166 Eager Road; East of East Onstott Frontage Road, south of Eager Road, west of Live Oak Boulevard, and north of the City of Yuba City

ASSESSOR'S PARCEL NO: 10-260-067

PROJECT DESCRIPTION: The proposed project would allow the development of a large general truck yard with a maximum of 19 truck/trailer parking spaces, a new 4,800± square foot shop for repairs and storage, the demolition of one existing structure, and the conversion of two existing buildings into a caretaker residence and office on 2.7± acres within the Commercial Industrial-Planned Development (CM-PD) and Light Industrial-Planned Development (M-1-PD) Districts. The proposal includes the following permit applications: 1) Planned Development Amendment; 2) Use Permit; and 3) Minor Design Review.

An Initial Study has been conducted by the Environmental Control Officer of the County of Sutter. The Environmental Control Officer finds that this project will not have a significant effect on the environment. The Initial Study is available for public review at the Sutter County Development Services Department, 1130 Civic Center Boulevard, Suite A, Yuba City, California. (Phone: 530-822-7400)

STATEMENT OF REASONS TO SUPPORT FINDING
OF MITIGATED NEGATIVE DECLARATION

Staff has conducted an Initial Study for this project, which revealed that the proposed project could have a significant impact on the environment; however, the recommended mitigation measures would reduce the possible impacts to a less than significant level.

Neal Hay
Director of Development Services
Environmental Control Officer

Date 9/26/23

Sutter County
Initial Study

1. Project title:	Project #U22-0020 (Hussain)
2. Lead agency name and address:	Sutter County Development Services Department Planning Division 1130 Civic Center Boulevard Yuba City, CA 95993
3. Contact person and phone number:	Raveena Sroya, Assistant Planner 530-822-7400 ext. 319
4. Project sponsor's name and address:	Project Applicant/Owner: Shafqat Hussain 2026 Nicolas Drive Yuba City, CA 95993 Project Engineer: John Mallen, P.E. MHM Inc. 1204 E Street Marysville, CA 95901
5. Project Location & APN:	1166 Eager Road, on the east side of East Onstott Frontage Road, south side of Eager Road, west of Live Oak Boulevard, and north of the City of Yuba City; APN: 10-260-067
6. General Plan Designation:	COM (Commercial) & IND (Industrial)
7. Zoning Classification:	CM-PD (Commercial Industrial-Planned Development) & M-1-PD (Light Industrial-Planned Development) Districts

8. Description of project: The project site consists of one parcel totaling approximately 2.7 acres. The site contains three existing buildings clustered in the northern portion of the site, two of which are proposed to remain and one that is proposed to be demolished. The remainder of the site is vacant land containing a mix of bare soil, grasses and weeds including several trees located near the existing buildings.

The applicant is seeking approval of a Planned Development Amendment, Use Permit, and Minor Design Review for the development and operation of a large general truck yard to accommodate parking for a maximum of 19 Surface Transportation Assistance Act (STAA) trucks/trailers, and 25 automobile parking spaces. The project also includes converting two of the existing structures on the site into an 800-square-foot office and an 800-square-foot caretaker residence and constructing a new 4,800-square-foot repair shop.

Access

All vehicles including trucks and automobiles will access the site via Eager Road on the north side of the property. Vehicles will have the ability to perform left-out and right-out movements from the site. The proposed site plan depicts the ability for a truck with trailer to be able to complete full turning movements to adequately accommodate the anticipated vehicle circulation. The majority of the truck parking spaces will be located along the south property line, with two additional spaces located near the maintenance and repair building. Automobile parking will be located in two clusters: one on the north side adjacent to the office and caretaker residence, and the other along the south property line adjacent to the truck parking

spaces. The site will be secured by six-foot tall fencing around the perimeter to discourage unauthorized access. The entrance to the site will remain ungated.

Design

The proposed site plan is designed with all buildings located along the Eager Road frontage while allowing for onsite circulation and maneuvering for trucks at the rear of the site and set back from public view. The site plan proposes 25 automobile and 19 truck parking spaces throughout the site, with landscape planters located around the automobile parking. Landscaped areas will also be constructed along East Onstott Road, Eager Road, and Live Oak Boulevard as required by County standards. The driveway, parking, and onsite circulation/maneuvering areas will be improved with asphalt concrete surface. Light pole fixtures will be constructed around the parking areas to maintain adequate lighting throughout the entire site. The six-foot tall fence will be constructed along the perimeter of the site to aid in screening and improve security to the site. A trash enclosure will be constructed at the south end of the property to handle refuse generated from the use. A detention basin to handle stormwater runoff will be constructed in an underutilized area of the site adjacent to Live Oak Boulevard.

Landscaping

Landscape improvements on the site will be located along all street frontages and around the automobile parking areas with raised curb planters. There are five existing trees that are proposed to remain along Eager Road, and four existing trees onsite that are proposed for removal to allow for automobile parking and onsite paving. The landscape plan proposes to include a mix of new trees, shrubs, and groundcover, using different species within the frontage improvements and parking lots. A small planter at the rear of the site will collect runoff in a drainage swale.

Buildings

There are three existing buildings on-site: two 800-square-foot residential structures that will be repurposed into an 800-square-foot proposed office and an 800-square-foot caretaker residence; and one existing structure that will be removed to accommodate the proposed driveway access. A 4,800-square-foot truck maintenance and repair shop is proposed to be constructed in the northwest corner of the parcel, to the west of the office and caretaker's unit.

Operations

As previously mentioned, the proposed improvements will support the operation of a truck yard for the purpose of parking, storing, and maintenance of STAA trucks and trailers. Onsite maintenance and repair would occur during normal hours of operation (8am to 5pm, Monday through Friday), while truck parking spaces would be accessible twenty-four hours per day, seven days per week. A security staff person will be onsite outside of the normal hours of operation to monitor access and assist users as needed.

The proposed shop will be used for the maintenance and repair of trucks being stored at the site and will perform services such as oil change, engine repair, and tire installation as well as brakes and tire service for trailers. There will be no glass repair, body work, or painting performed onsite.

Drainage

Due to the creation of additional impervious surfaces for vehicle parking, circulation, and access, an onsite stormwater detention basin is proposed on the eastern portion of the site. The proposed location for the basin was selected due to the restricted configuration, making it unsuitable to be used for truck parking. The area is also outside of the vehicle circulation area of the site, allowing circulation to be maintained.

9. Surrounding land uses and setting: The project site is located approximately one mile north of the city limits of Yuba City, east of the Eager Road/Highway 99 interchange northbound offramp. The site is

bordered by Eager Road to the north, East Onstott Road to the west, Live Oak Boulevard to the east, and agricultural land to the south. The site is approximately 5,000 feet west of the Feather River.

The general surrounding area is primarily composed of commercial agricultural lands, however other uses are also present near the site including two assembly buildings (one small, one large) located to the north and east of the site, and a commercial recreational vehicle (RV) sales business to the south. A single-family residence is located across from the project site to the west on the west side of East Onstott Road.

10. Other public agencies whose approval is required: None

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.? The County initiated Assembly Bill 52 (AB 52) consultation through distribution of letters to the Native American tribes provided by the Native American Heritage Commission (NAHC). No requests for consultation were received from any Native American tribes during the review period.

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" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology and Soils	☐ Greenhouse Gas Emissions	☐ Hazards and Hazardous Materials
☐ Hydrology and Water Quality	☐ Land Use and Planning	☐ Mineral Resources
☐ Noise	☐ Population and Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities and 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.

Applicant Mitigation Agreement:
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.

Shafqat H — 9-27-23
Signature of Applicant/Representative — Date

Raveena Sroya — 9/26/2023
Raveena Sroya, Assistant Planner — Date

N L P — 9/26/23.
Neal Hay, Director of Development Services
Environmental Control Officer — Date

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:				
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 nonurbanized 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. The site is approximately 5.5 miles east of the base of the Sutter Buttes and is not located within the Sutter Buttes Overlay Zone. Some new construction is proposed as part of this project; the new building will be 22 feet tall and will not result in a significant obstruction to the Sutter Buttes. Two other structures already exist on the site and would be utilized to support the project. The project site is not located in the immediate vicinity of the Bear River, Feather River, or Sacramento River. As a result, the proposed project would not result in impacts to a scenic vista.

b) ***No impact.*** This project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. There are no state scenic highway designations in Sutter County. Also, the project site has been previously disturbed and developed with three existing structures (one of which is proposed for demolition), and none of these existing buildings have been designated as historic buildings on the site nor do they contain historical value. Therefore, no damage would occur to such resources and no impact is anticipated.

c) ***Less than significant impact.*** The proposed project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. The surrounding area is largely rural and agricultural. Several assembly use buildings and an auto sales building are located nearby. While truck parking is not a typical land use associated within the area, it is consistent with agricultural activities that use trucks, such as processing plants. An existing processing plant is located nearby, west of Highway 99. The project proposes and will be conditioned to improve the streetscape and perimeter of the truck parking area with new

landscaped areas, including new shrubs and shade trees, which will enhance the aesthetic quality of the site from public viewpoints along East Onstott Road and Eager Road. The County's Zoning Code Table 1500-07-3 (Commercial and Employment Design Checklist) includes requirements for landscaping and screening. The County's Commercial and Employment Districts, contain specific design requirements for landscaping, which are designed in part to improve the appearance of a site and create a cohesive look (Zoning Code Section 1500-07-050 E). These requirements would apply to large general truck yards such as the proposed project. The project applicant proposes to install landscaping in accordance with Zoning Code requirements prior to use of the site for truck and trailer and vehicle parking. The landscaping shall be continuously maintained, which will be included as a proposed project condition. As noted, trees with associated shrubs and ground coverings would be planted along the project site boundaries. The proposed landscaping would reduce the visibility of the parking area, as well as enhance the visual quality along the project frontage. The project also complies with the checklist standards for building materials, design, parking, and circulation. The proposed repair shop building will feature a mix of materials and colors to create a visually appealing building design as viewed from the public right-of-way. Screening of the truck yard would also include use of a perimeter fence with privacy slats. Additionally, the noise study prepared for the project recommended a mitigation measure to construct a nine-foot-tall solid noise barrier (masonry wall or earthen berm) along the western property boundary to mitigate noise impacts to an existing residence located west of the project site. The proposed barrier, which is permitted by the County's Zoning Code when located outside of the street side setback and limited to nine feet in height, would screen visual operations and noise from the truck yard and would be designed to comply with the County's Commercial and Employment Design Checklist. The noise barrier would not substantially degrade the visual character of public views of the site given the required roadway dedication and setback requirement of 15-feet reducing the scale of the noise barrier and its visual effect on the surrounding properties. Landscaping consisting of trees and shrubs is also required along the East Onstott Road frontage further reducing the impacts of the sound barrier.

The existing visual character of the project site is not considered of high quality, as it consists mostly of vacant structures, grasses and weeds, and bare soils. As this project complies with the design requirements of the Zoning Code Design Checklist and is consistent with the General Plan designation of the property, this project is not anticipated to substantially degrade the existing visual character or quality of the site or its surroundings; in fact, the project would likely improve the visual character of the site with the removal of weeds and overgrown landscaping. Therefore, the impacts to the visual character of the proposed project would be less than significant.

d) ***Less than significant impact.*** The project would add new lighting to a site that currently has no existing lighting. This could cause indirect illumination to the existing residence approximately 100 feet west of the project site, west of East Onstott Road, at a level that could disturb the sleep of residents.

The County's Zoning Code contains specific requirements for exterior lighting for large general truck yards (Zoning Code Section 1500-05-030 E. 3. d.), which require that: light pole and fixture height shall not exceed 25-feet; truck parking areas incorporate motion activated lighting which shall not spill onto adjoining properties; and 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 as to not spill onto adjacent properties or road rights-of-way; illumination requirements for parking lots and driveways which require that a point-by-point photometric plan be submitted to demonstrate compliance with the lighting standards; and That the submitted lighting plan and photometrics demonstrate compliance with these standards.

Pole-mounted LED light fixtures are proposed around the perimeter of the new parking areas. Preliminary plans for lighting indicate that the illumination would not increase lighting levels for the residence to the west. All new lighting is required to meet County lighting requirements, including shielding and pole heights and outdoor lighting would be installed in accordance with the prepared lighting plan prior to use of the site for truck/trailer and vehicle parking, which will be included as a proposed project condition. As a result, it is not anticipated that this project would create a new source of substantial light or glare in this area and a less-than-significant impact is anticipated.

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

(County of Sutter, Zoning Code. 2022)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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:				
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))?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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***. As noted in the CEQA Guidelines Appendix G Environmental Checklist, which is used in this analysis, Farmland is defined as 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. According to the 2018 Sutter County Important Farmland map, the northern portion of the project site is designated as Urban and Built-Up Land and the southern portion of the project site is designated as Grazing Land. The General Plan designation and the zoning of the site is Commercial and Industrial, and is not intended to be utilized for agricultural purposes. The proposed project is consistent with the General Plan and zoning, and is also consistent with the intended use of the site. As the project site does not have a Farmland land use designation, the proposed project would not result in the conversion of Farmland to a non-agricultural use. Therefore, the proposed project would have no impact on Farmland conversion.

b) ***No impact***. This project proposal would not conflict with existing zoning for agricultural uses or a Williamson Act contract. The project site is zoned CM (Commercial Industrial) and M-1 (Light Industrial) and the project site is not encumbered by a Williamson Act contract. Therefore, there would be no impact.

c) ***No impact.*** The proposed project site is not forest land nor is it zoned for forestry or timberland (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), nor is the site zoned for Timberland Production (as defined by Government Code Section 51104(g)), nor is it adjacent to land that is zoned for forest land or timberland. This project is within the Sacramento Valley, a non-forested region. As such, there would be no impact to foresty and timberland and timberland production/resources.

d) ***No impact.*** As discussed above, the project site does not have any forest, nor is it designated for forestry. Sutter County is located on the valley floor of California's Central Valley, and as such, does not contain forest land. There will be no loss of forest land or conversion of forest land to non-forest use. Therefore, there would be no impact.

e) ***Less than significant 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 on a partially developed parcel that is not forest land and is not used for agricultural purposes. Agricultural uses in the vicinity would continue, and conflicts between the proposed project and nearby agricultural uses are not anticipated.

Section 1500-19-020 of the County Zoning Code states that permanent agricultural buffers are required for any new or expanded non-agricultural use or development adjacent to agricultural uses, including industrial development. The project site is adjacent to agricultural land to the east. The agricultural buffer provisions apply only to lands outside established City Sphere of Influence boundaries or rural community boundaries. The County General Plan indicates that the project site is outside of a rural community boundary and is situated between Yuba City and Live Oak. The project proposes to maintain a 300-foot agricultural buffer on the eastern side of the property in compliance with the County Zoning Code.

This project does not propose infrastructure or other features that would present an opportunity for the conversion of farmland in the vicinity to a non-agricultural use. 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, the project would have a less than significant impact related to indirect conversion of Farmland or forest land.

(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)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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:				
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. The FRAQMD is either in attainment of or unclassified for all federal and State ambient air quality 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 Environmental Permitting Specialists to prepare an air quality analysis. A copy of this analysis is attached to this Initial Study. The air quality 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. It should be noted that the air quality analysis was conducted for a project that originally proposed 24 trucks and 26 automobile spaces. The current version of the project has 19 trucks and 25 automobile spaces. Since there is only a small decrease in the number of trucks and automobiles analyzed, the air quality analysis remains valid and provides a conservative estimate of pollutant emissions.

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)	4.2	0.18	0.01
Exceeds threshold?	*No*	*No*	*No*
Operational Emissions (pounds/day)	0.26	0.38	0.18
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 a variety of activities, including operation of heavy equipment and use of worker vehicles, vendor trucks, and hauling trucks. 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. Typically, a large portion of construction-related ROG emissions results from the application of asphalt on to parking areas, and the application of architectural coatings. 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 Estimate Model (CalEEMod) computer model, version 2022.1.1. 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 above, 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 and project construction impacts on air quality would be considered less than significant.

Long-Term Operational Impacts

The proposed project would result in long-term operational emissions, as it would generate an increase in the number of trucks that would travel to and from the site on a regular basis. The air quality analysis for the project, prepared by Environmental Permitting Specialists, dated May 22, 2023, used the EMFAC 2021 computer model to estimate vehicle exhaust emissions and data from the California Air Resources Board (CARB) to estimate fugitive road dust emissions. 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 above, 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.
- 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 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.

Because this project would not generate emissions above FRAQMD's thresholds of significance for construction and operational activities, and would implement the relevant mitigation listed above, a less-than-significant impact on air quality is anticipated.

b) ***Less than significant impact.*** This project would not result in a net increase of any criteria pollutant. 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 a component 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.

As discussed above, neither project construction nor operations would generate emissions that exceed the FRAQMD thresholds of significance. Also as noted in a) above, the project would implement the FRAQMD-recommended Standard Mitigation Measures. Therefore, the project 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. A less-than-significant impact is anticipated.

c) ***Less than significant impact.*** This project would not expose sensitive receptors to substantial pollutant concentrations. Potential sensitive receptors include the adjacent residence west of the project site. As discussed in a) above, project construction and operational emissions would not exceed FRAQMD significance thresholds. As such, the nearby sensitive receptors would not be exposed to substantial amounts of pollutant emissions, especially when Mitigation Measure No. 1 is implemented.

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 Environmental Permitting Specialists analysis for the project included a screening level risk analysis that evaluated the potential health risks to nearby residences of the estimated DPM operational emissions. Construction DPM emissions were not considered, as construction work is estimated to take only 30 days, and measurable health risks from DPM emissions occur only with prolonged exposure. The emission rate of exhaust PM10 estimated by CalEEMod, with a few refinements, is considered a surrogate for DPM. Annual DPM operational emissions generated by the project were estimated at 0.038 pounds per year.

Toxic air contaminant emissions are considered significant if the emissions lead to a cancer risk of 10 cancers per million people and the Non-Cancer Hazard Index is 1.0. The analysis found that for the closest distance to the project site (0 to 100 meters), the cancer risk would be approximately 0.0878 per million – well below the significance threshold for cancer risk. The Non-Cancer Hazard Index at 0 to 100 meters would be approximately 0.00013, also well below the significance threshold. For both indices, scores would be lower at greater distances.

In summary, construction and operational emissions from the proposed project would not generate substantial criteria pollutant emissions, nor would it generate DPM emissions that would pose a substantial health risk to sensitive receptors – the nearby residences. 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 the above types of odor-generating facilities.

The project proposes the demolition of one structure currently existing on the project site. Demolition of structures could release hazardous materials into the atmosphere, particularly asbestos. It is not known if these structures contain asbestos material. However, California Health and Safety Code Section 39658(b)(1) establishes the National Emissions Standards for Hazardous Air Pollutants for asbestos, which includes airborne toxic control measures. Compliance with this Health and Safety Code section would minimize asbestos releases. The project also includes the construction and operation of a shop building for minor truck repair, however services conducted within the building would be limited to oil changes, engine repair, and tire services which would not generate substantial odors or release hazardous materials into the atmosphere. Therefore, the project is not anticipated to generate odors or other emissions that would affect a substantial number of people, and the impact would be less than significant.

Environmental Permitting Specialists. 2023. *Draft Analysis of Impacts to Air Quality and Greenhouse Gas from Truck Parking and Repair Yard, California*

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

(County of Sutter, General Plan 2030. 2011)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and 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, 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 Sutter County General Plan Environmental Impact Report (EIR) assessed the presence of special-status species in Sutter County through a search of the California Natural Diversity Database. The results did not identify any special-status species as potentially occurring in the vicinity. In addition, the USFWS Critical Habitat Mapper indicated no critical habitat for any species listed under the federal Endangered Species Act, in the project vicinity.

Additionally, the project site has been previously developed. Such sites are generally of limited use to wildlife due to the level of disturbance and typically are devoid of native plant species or

habitat. The uses occurring in the area are not conducive for wildlife to locate within the project site, and none have been inventoried. 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 natural streams or rivers in the immediate vicinity or occurring on the site, however the Feather River is located approximately 900 feet to the east. The site has been previously disturbed with the development of the existing buildings and occupied as a residence for many years. No other sensitive natural communities exist on site or near the property; nearby lands are either agricultural or developed churches and a retail automotive dealer. 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 on the project site or that would be impacted by development of the project as proposed. The project site has been previously developed and there are no wetlands on the site. Therefore, no impact is anticipated.

d) ***No 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 was previously developed. The project is not anticipated to significantly interfere with wildlife movement since the site has no trees other than ornamentals, which are not considered desirable nesting sites for migratory birds and no riparian habitat is located on the site that could also be used for nesting. No 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. There are no oak trees located on the property, so no impact is anticipated.

f) ***No impact.*** The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan, because no such plans are applicable to this project site. As a result, no impacts are anticipated.

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

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

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

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

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

Responses:

a-b) ***Less than significant impact.*** The proposed project would not cause a substantial adverse change in the significance of a historical resource or archaeological resource pursuant to California Environmental Quality Act (CEQA) Guidelines §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 and 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. The project site is also not located within the vicinity of the Bear River, Sacramento River, or Feather River where archaeological resources are more likely to occur. There is no evidence on the project site indicating that historical or archaeological resources exist.

As the property was previously developed and has been extensively disturbed to varying depths due to past development, it is unlikely that any intact cultural resources exist. Therefore, a less-than-significant impact to cultural resources is anticipated.

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 as the property is not located near a cemetery and the project site is not located within the vicinity of the Bear River, Sacramento River, or Feather River, where burials would be more likely to occur.

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.

Public Resources Code §5097.98 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 descendent from the deceased Native American. The descendants may inspect the site and recommend to the property owner a means for treating or disposing the human remains. If the Commission cannot identify a descendent, or the descendent identified fails to make a recommendation, or the landowner rejects the recommendation of the descendent, the landowner shall rebury the human remains on the property in a location not subject to further disturbance.

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

> **Mitigation Measure No. 2 (Cultural Resources):** 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 §5097.98. If the remains are recognized to be those of a Native American, the County Coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC shall initiate the process of contacting the most likely descendant and the disposition of the remains pursuant to Public Resources Code §5097.98.

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

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

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

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 and a new 60-foot by 80-foot shop building for minor truck repair and maintenance.

Overall, the project would not require the creation of a new source of energy generation. Construction of the parking area would require the consumption of diesel and gasoline to power construction equipment and delivery trucks. As stated in the air quality analysis completed for this project, the project would take approximately 90 days to construct. 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 project characteristics or 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.

This project does not require and would not utilize a substantial amount of energy due to the limited use of the site as a parking area for trucks, trailers, and automobiles. Proposed outdoor lighting at the project site 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.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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:				
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 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?	☐	☐	☒	☐
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, as the subject property is not located within 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 the 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 these faults have the potential for seismic activity, they are listed as non-active faults. Therefore, the potential for ground shaking or other seismic events such as liquefaction being generated by these faults is unlikely. 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 slopes in the vicinity. The project is not located in the Sutter Buttes, which is 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 U.S. Department of Agriculture (USDA) Soil Conservation Service Soil Survey of the County, on-site soils consist of Gridley clay loam, 0 to 1 percent slopes; Conejo-Tisdale complex, 0 to 2 percent slopes; and Conejo loam, 0 to 2 percent slopes. This soil is unlikely to be susceptible to erosion, as runoff will be 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 have only slight erodibility.

However, site grading has the potential to result in soil erosion due to loosened soils. Any grading or site improvements shall be done per an approved grading plan and in accordance with Sutter County Development Standards. The grading plan shall be reviewed and approved by the Director of Development Services prior to the start of construction.

Since the project size is more than one acre, the applicant is required to prepare a Storm Water Pollution Prevention Plan (SWPPP) and obtain a National Pollution Discharge Elimination System (NPDES) General Construction Permit through the Regional Water Quality Control Board 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:

> **Mitigation Measure No. 3 (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 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 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.*** The soil types on the north and southeast portions of the project site have moderate shrink-swell potential and the soil at the southwest portion of the project site has a severe shrink-swell potential. The site contains two existing buildings to the north that are proposed to remain and one new shop building is proposed to be constructed at the northwest corner of the site. All proposed construction is required to comply with the adopted California Building Code, specifically Chapter 18 for soils conditions and foundation systems, to address potential expansive soils that may require special foundation design, a geotechnical survey, and engineering for foundation design. The Building Inspection Division would implement these standards as part of any future building permit process. A less-than-significant impact is anticipated.

e) ***No impact.*** This project does not 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. Properties in the area rely on the use of onsite septic tanks and leach field systems for the disposal of wastewater, as there is no sewer system available in the area. The project proposes the construction of a 2,500-gallon holding tank for the proposed shop building and a new 1,000-gallon septic tank and leach field. A soils test was completed on February 16, 2022, and the Sutter County Environmental Health Division determined that the property is suitable for the proposed onsite sewage disposal system. Therefore, no impact is anticipated.

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. Given past development, it is unlikely the project site has any intact paleontological resources. 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)

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

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 Assembly Bill (AB) 32, 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 Environmental Permitting Specialists air quality analysis for the project (see attachments) indicates that the project GHG emissions from construction would measure 7,795 pounds of CO_2 per day, well below the screening criteria based on an anticipated construction timeline of less than one year. In addition, Sutter County has established GHG pre-screening tables to simplify the determination of GHG impacts and has screened out parking facilities such as the proposed project. Therefore, operational level GHG emissions resulting from the project would cause a less than significant impact.

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 emissions that exceed this threshold. Therefore, this project would be consistent with the County CAP. A less-than-significant impact is anticipated.

(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.)

Environmental Permitting Specialists. 2023. *Draft Analysis of Impacts to Air Quality and Greenhouse Gas from Proposed Truck Parking and Repair Yard, California*

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
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 § 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 truck parking area is not expected to use or discharge hazardous materials, other than small-scale fuel and oil discharges from vehicles that can be contained by the proposed storm drainage system once required mitigation measures are implemented (see Section, Hydrology and Water Quality). However, the project proposes to operate a truck repair facility, which could involve the use of hazardous materials. Operations of the truck maintenance and repair shop would be limited to oil and fluid changes, engine repair and maintenance, and tire service.

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. The CUPA would require that any business that uses, generates, processes, produces, treats, stores, emits, or discharges a hazardous material in quantities at or exceeding 55 gallons for liquid, 500 pounds for solids, or 200 cubic feet for compressed gas at any one time during a year 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 applicant has indicated that the truck repair facility is not expected to use or store hazardous materials in an amount that would require submittal of a Hazardous Materials Business Plan.

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 lead to 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. There are no existing or proposed schools within one-quarter mile of the project site. The closest existing school is Yuba Community College, located approximately three-quarter miles south of the project site. As noted in a) above, the project is not expected to store large quantities of hazardous materials. Therefore, 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 §65962.5. A review of State hazardous material site databases found no records for the project site or immediate vicinity. As a result, the project would not create a hazard to the public or the environment; therefore, no impact is anticipated.

e) ***No impact***. This project is not 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. The nearest public airport is Sutter County Airport, which is located more than four miles south of the project site. Therefore, due to the project's distance from this facility this project would not result in a safety hazard or excessive noise for people residing or working in the project area and no impact is anticipated.

f) ***Less than significant impact.*** This project would not impact the implementation of nor physically interfere with an adopted emergency response plan or emergency evacuation plan. The project site is located off of Highway 99 on Eager Road, which provides for adequate

emergency access as needed. The proposed project will not physically interfere with the continued use of these roadways during the event of an emergency, will not generate an excessive amount of vehicle or truck traffic that might impede service along the project frontage roads and will have nominal impact on existing levels of service. This proposed 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 which allows for combustible fuels to accumulate over long periods of time. The project site is not located in the Sutter Buttes or "river bottom" areas and existing fire protection services are located within the project's vicinity. 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.

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

(California Department of Toxic Substances Control, Hazardous Waste and Substances Site List - Site Cleanup (Cortese List). 2022)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY. Would the project:				
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;	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 and maintenance and repair shop. Since the total land area of the project would exceed one acre, the applicant is required to obtain coverage under the State Construction General Permit, under the NPDES program (Mitigation Measure No. 3). This program requires implementation of erosion control measures designed to avoid significant erosion. The NPDES construction permit requires implementation of a SWPPP that includes storm water best management practices to control runoff, erosion, and sedimentation from the site. This would minimize potential construction impacts on water quality.

A retention basin is proposed to be constructed on the southeast corner of the site to capture the increased storm runoff generated by the project. Potential water quality impacts would be addressed in a private drainage facilities maintenance agreement that the project would be required to complete (Mitigation Measure No. 6). Compliance with applicable requirements would minimize the project's impact to 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 existing onsite well will be used to supply water to the proposed shop building, caretaker's residence, and for irrigation of proposed landscaping.

The proposed truck parking, automobile parking, and circulation aisles would be paved with asphalt. Although the project would result in conversion of the site to impervious surfaces, the impervious area would be approximately 2 acres, which would not substantially impact groundwater recharge in the region. The project design includes a retention pond which would aid in groundwater recharge.

As described in the Project Description, the landscaping would use low-water plants and irrigation systems considered water-efficient. Under the Commercial and Employment Design Checklist, landscaping shall comply with the current Model Water Efficient Landscaping Ordinance prepared by the California Department of Water Resources, as required by the California Water Conservation in Landscaping Act (Government Code Section 65591 *et seq.*). The landscaping is not expected to use a substantial amount of groundwater. A less-than-significant impact is anticipated.

c-i, -ii, -iii) ***Less than significant with mitigation incorporated***. The project proposes a truck yard that would add impervious surfaces in an area that is occupied mostly by grasses and weeds. As such, existing drainage patterns would be altered, and additional runoff would be generated. However, the project proposes on-site retention pond to collect the additional runoff.

The County has indicated that a drainage plan must be submitted. Based on County comments on similar truck yard projects, the following mitigation measures are recommended:

> **Mitigation Measure No. 4 (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. 5 (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.
>
> **Mitigation Measure No. 6 (Hydrology and Water Quality):** PRIVATE DRAINAGE FACILITIES MAINTENANCE AGREEMENT. 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. 7 (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.

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. 3). This plan would be

implemented during the construction phase of the project and would reduce erosion and stormwater pollution.

c-iv) ***No impact.*** The project site is located within flood zone X, according to Flood Insurance Rate Map No. 0603940085B, issued by the Federal Emergency Management Agency (FEMA). As such, no impact related to flood flows is anticipated.

d) ***Less than significant impact.*** This proposed project would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones. As noted above, the project is within flood zone X, which provides 100 and 500 year flood protection from levees. As noted in Section IX, Hazards and Hazardous Materials, no hazardous materials of significant quantities would be stored on the project site. 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.*** This 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 project is not expected to interfere with implementation of the Groundwater Sustainability Plan, particularly since the project would generate a low water demand from the proposed repair shop, caretaker's residence, and the perimeter and parking lot landscaping. No impact is anticipated.

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

(Federal Emergency Management Agency, Flood Insurance Rate Map. 2008)

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING. Would the project:				
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 as the project site is located outside of the Live Oak and Yuba City Spheres of Influence and would not create a physical barrier between the two communities. Therefore, no impact is anticipated.

b) ***Less than significant impact.*** This project would not conflict with an applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect,

because the General Plan does not consider the site to be within a hazardous or biologically sensitive area. The County has not adopted any other land use plan, policy, or regulation for the purpose of avoiding or mitigating a specific environmental effect that affects this project. Where necessary, mitigation has been incorporated into the project and no additional mitigation measures are necessary. 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, Zoning Code. 2022)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
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 also 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)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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*.** The project site is surrounded mainly by rural agricultural lands, religious assembly buildings, commercial vehicle sales, and to a lesser extent, residential uses. An existing residential dwelling is located approximately 80-100 feet from the project site's western property lines. Traffic on State Highway 99, East Onstott Road and Eager Road, adjacent to the project site, are the main source of noise in the area. Vehicular noise varies with the volume, speed, and type of traffic. Trucks typically generate more noise than cars, and the project will result in an increase of truck traffic trips to the site.

To determine noise impacts from the proposed project, Bollard Acoustical Consultants (BAC), prepared an environmental noise assessment (dated August 7, 2023). A copy of this assessment is attached 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.

Project Construction Noise

Construction noise associated with the project would be temporary and would vary depending on the nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for onsite construction activities, as well as construction vehicle traffic on area roadways. During construction, exterior noise levels could negatively affect sensitive land uses in the vicinity of the construction site. Nearby noise-sensitive land uses consist of one single-family residence to the west. During project construction operations, the ambient plus project noise level was calculated to increase by 0.8 dB at the property line of the existing residence, which is below the conservatively applied significance criterion of 1 dB.

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 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. Noise-sensitive uses include residential areas, daycares, schools, convalescent homes, and medical care facilities. To ensure compliance with General Plan Policy N 1.6, the following

mitigation measures is proposed below. Compliance with these mitigation measures would render construction noise impacts to a less than significant level.

> **Mitigation Measure No. 8 (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.
>
> **Mitigation Measure No. 9 (Noise):** All mobile or fixed noise-producing used on the project site that is regulated for noise output by a federal, state, or local agency shall comply with such regulations while in the course of project activity.
>
> **Mitigation Measure No. 10 (Noise)**: Electrically powered equipment shall be used instead of pneumatic or internal-combustion powered equipment, where feasible.
>
> **Mitigation Measure No. 11 (Noise):** Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive uses.
>
> **Mitigation Measure No. 12 (Noise):** Project area and site access road speed limits shall be established and enforced during the construction period.
>
> **Mitigation Measure No. 13 (Noise):** Nearby residences shall be notified of construction schedules so that arrangements can be made, if desired, to limit their exposure to short-term increases in ambient noise levels.

Project Operational Noise – Offsite Traffic

The noise study conducted an analysis of different noise generating potential impacts associated with the operation of the proposed truck yard and repair shop including noise associated with vehicle trips, circulation, parking, departure, idling, refrigeration units, and noise associated with the repair shop. The study took into account the proximity of the existing sensitive uses which includes the residential dwelling located 80-100 feet to the west of the project site and determined that the existing residence may be impacted by onsite operations of the truck yard.

According to the project traffic impact analysis prepared by KD Anderson and Associates, the project is estimated to generate a total of approximately 55 vehicle trips per day (37 automobiles, 18 heavy trucks). The project traffic impact analysis indicates an existing average daily traffic volume (ADT) of 4,650 for Eager Road, from SR 99 to Live Oak Boulevard, which computes to an existing day-night average noise level exposure of 63 dB DNL. Based on a worst-case 55 vehicle trips per day, project-generated traffic noise level exposure is predicted to be approximately 54 dB DNL (day-night average) at a distance of 50 feet from the centerline of Eager Road. Because project-related traffic is not predicted to result in increases in ambient noise levels that would exceed Sutter County General Plan Policy N 1.2 standards of significance criteria at the nearest existing noise-sensitive uses within the project vicinity, no mitigation is required. The traffic impact analysis was conducted based on the applicant's original proposal of 24 truck/trailer parking spaces and 26 automobile parking spaces, as opposed to the 19 truck/trailer parking spaces and 25 automobile parking spaces currently proposed by the project. Therefore, the traffic assessment and noise study are considered to provide conservative estimates of traffic/noise impacts.

Project Operational Noise – Onsite Operations

The primary noise sources associated with project on-site operations have been identified as on-site truck circulation, repair shop equipment operations, passenger vehicle parking movements, truck hitching, idling, and departures, and truck refrigeration units.

The proposed hours of operation for the truck and trailer repair shop component of the project are 8:00 a.m. to 5:00 p.m. Monday-Friday. The truck and passenger vehicle parking component of the project proposes 24-hour operations seven days a week. Based on this information, the County's non-transportation daytime and nighttime noise level standards were applied to project on-site operations.

The noise study analysis determined that various aspects of the onsite operations of the proposed truck yard and repair shop would have significant noise level impacts to the adjacent residence to the west. The study found that operations including truck circulation, departure, idling, refrigeration units, and parking maneuvers would cause ambient noise levels to increase over the County's identified thresholds of significance. In order to reduce these impacts to a less than significant level, several mitigation measures have been identified to be incorporated into the project. These mitigation measures include construction of a new sound wall along the western property line, restricting parking of refrigerated trailers away from residential uses as much as feasible, and closing repair shop access doors during use. The soundwall on the western property line would be required to be setback 15 feet based on the need for roadway dedications to E Onstott Road as part of the project conditions of approval from the Sutter County Development Services Engineering Division. This may result in slight modifications to the site plan to accommodate the required setback distances. The following mitigation measures are included below:

> **Mitigation Measure No. 14 (Noise):** The construction of a 9-foot-tall solid noise barrier along the western project property line. The location of the solid noise barrier is illustrated in Figure 4 of the noise study. The noise barrier could take the form of a masonry wall, earthen berm, or combination of the two. Other materials may be acceptable but should be reviewed by an acoustical consultant prior to construction.
>
> **Mitigation Measure No. 15 (Noise):** All equipment operations associated with the proposed truck and trailer repair shop must occur within the shop building and with all bay doors in the closed position at all times. The sound transmission loss provided by building facades and doors in the closed position is estimated to be approximately 15 dB.
>
> **Mitigation Measure No. 16 (Noise):** Trucks requiring on-site refrigeration unit operation are restricted from parking in westernmost truck parking stalls (spaces 15-19) during nighttime hours (10:00 p.m. to 7:00 a.m.). Specifically, all trucks requiring on-site refrigeration unit operations would be limited to truck parking stalls 1-14 during nighttime hours. The locations of the specific truck parking stalls are shown in Figures 2 and 4 of the noise study.

b) ***Less than significant impact.*** Increases in groundborne vibration levels attributable to the project would be associated with short-term construction-related activities involving equipment. Construction on the project site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. General Plan Policy N 1.7 requires new development to minimize impacts of continuous vibration on adjacent uses during construction, based on criteria established by the County.

Vibration levels from on-site heavy construction activities are projected to range from well below the threshold of human perception of 65 VdB to slightly above that threshold (71 VdB) at the closest existing residence to the west. At the vacant (dilapidated) structure on the adjacent parcel to the east, project construction vibration levels are projected to primarily range from well below the 65 VdB threshold of human perception to slightly above that threshold (67 VdB), with one piece of equipment projected to potentially approach 80 VdB. Finally, construction-related vibration levels are generally predicted to be below levels considered to be annoying (75 VdB) at distances of 75 and 110 feet from construction activities. Based on the analysis provided above, on-site construction within the project area is not expected to result in excessive groundborne vibration levels at nearby off-site existing structures.

Results from the ambient vibration level monitoring within the project area indicate that average measured vibration levels were well below the 65 VdB threshold of perception. Therefore, it is expected that the project would not result in the exposure of persons to excessive groundborne vibration levels at proposed uses of the project.

Finally, the project proposes the operation of a truck and trailer repair and parking facility. While traffic/trucks traveling on roadways are a source of vibration, these sources rarely generate vibration amplitudes high enough to cause structural or cosmetic damage. Further, vibration levels generated by project on-site traffic/truck will be at low speed and are expected to dissipate rapidly with distance. Based on the information above, project on-site operations are not expected to generate appreciable vibration.

Because vibration levels due to both project construction and operations related to proposed uses within the project area are expected to be satisfactory relative to the applicable vibration impact criteria, this impact is identified as being less than significant.

c) ***No impact.*** As noted in Section IX, Hazards and Hazardous Materials, the nearest public airport is Sutter County Airport, more than 4 miles south of the project site. 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.

(County of Sutter, General Plan 2030. 2011)

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

(Bollard Acoustic Consultants, Environmental Noise & Vibration Assessment, Moon Truck and Trailer Repair Project, Sutter County, California. 2023)

(KD Anderson & Associates, Inc., *Moon Truck and Trailer Parking and Repair Facilities at 1166 Eager Road, Sutter Co., CA: Transportation Impact Analysis and Traffic Operational Assessment. 2022)*

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING. Would the project:				
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)?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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. The project proposes to keep one of the three existing homes onsite for use as a caretaker residence. Overall, the project would reduce the number of residential units on the property, so there would be no major population impacts. The project applicant indicated that a maximum of 5 employees would work at the project site during normal business hours and a security guard will be onsite outside of the normal hours of operation. 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) ***Less than significant impact.*** This project would not displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere. The project proposes to remove two existing homes from the property; however, not all homes are occupied at all times and the removal of the two residences is not expected to have a significant impact on housing. The proposed project would not expand beyond the property boundaries; therefore, it would not displace any housing or people outside these boundaries. A less than significant impact is anticipated.

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES. Would the project:				
a) 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:				
i) Fire protection?	☐	☐	☒	☐
ii) Police protection?	☐	☐	☒	☐
iii) Schools?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
iv) Parks?	☐	☐	☐	☒
v) Other public facilities?	☐	☐	☐	☒

Responses:

a-i) ***Less than significant impact.*** Fire protection services for the project vicinity are located within County Service Area G, which is operated by the Yuba City Fire Department. In 2001, Walton Fire Protection District merged with the Yuba City Fire Department to form CSA-G, which now encompasses the City of Yuba City and the protection area surrounding the City beyond the Sphere of Influence boundaries. The CSA-G is under Sutter County Fire Department's jurisdiction but has been contracted back to Yuba City along with funding allocations to cover all fire services within CSA-G. The merged CSA-G serves a combined city/county service area of approximately 30 square miles and 66,000 residents. The nearest fire station is Yuba City Fire Station No. 2, located at 1641 Gray Avenue, approximately 2.2 miles south of the project site. The Fire District had no comments on provision of service to the project site or the need for additional fire protection facilities to service the project. Response time would not be affected by the proposed project. Existing County roads would provide adequate transportation routes to reach the project site in the event of a fire including the use of Highway 99, Eager Road, and East Onstott Road. The project is a truck yard that would provide parking spaces and maintenance and repair for trucks or trailers. Therefore, 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.*** Law enforcement services for unincorporated portions of Sutter County are provided by the Sutter County Sheriff's Department, and traffic enforcement and investigation services are provided by the California Highway Patrol. Response time would not be affected by the proposed project. Existing state highways would provide adequate transportation routes to reach the project site in the event of an emergency. Because of this, the construction of new facilities would not be required to provide adequate law enforcement service to this project. A less-than-significant impact is anticipated. Traffic impacts are discussed in the Transportation section of this Initial Study.

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. The project will not result in the construction of any new residences and will convert two existing residential structures to an office and a caretaker's residence for overnight security purposes. As proposed with this project, no new demand for school facilities will be generated. 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 park land or create an additional impact upon existing parks in the region. This project will not result in any new residences which would require park services; therefore, this project would not have a significant impact on parks countywide. 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 additional or new public facilities. The proposed truck yard and

repair facilities do not generate demand for public facilities and no residential dwellings are associated with the project that would benefit from public facilities. No impact is anticipated.

(County of Sutter, Zoning Code. 2022)

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
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. The project consists of a new truck yard and repair facility. The proposed uses would not generate demand for park facilities and therefore would not create a significant impact to existing parks in the region. No impact is anticipated.

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION. Would the project:				
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 § 15064.3, subdivision (b)?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Substantially increase hazards due 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 with incorporation of identified mitigation measures. This property is in a relatively rural area approximately 0.77 miles north of the incorporated limits of Yuba City and its sphere of influence. The project area is not served by mass transit or bicycle paths, and no sidewalks have been installed. Given the rural nature of the area and the proposed use, passenger vehicles and trucks with trailers would be the most likely form of transportation to and from the site.

Level of Service

A Traffic Operational Assessment for the project was prepared by KD Anderson & Associates, Inc., on October 18, 2022. A copy of this assessment is attached to this Initial Study. The Traffic Operational Assessment documents the existing traffic setting, applicable regulations, project travel characteristics, project operational analysis under proposed project and cumulative conditions, and project impacts under CEQA.

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.

The project proponent has indicated that this site will be used by long haul truckers operating on the west coast. Sutter County's long haul truck trip generation rates were developed from 24-hour truck traffic counts at a large (440 spaces) truck yard parking facility in Yuba City, which found that site generated approximately 7.6 daily truck trips per 10 truck yard parking spaces. This also assumed that drivers would generate automobile trips at the same time that trucks entered and exited, and that half ofall drivers would be dropped off and/or picked up. The analysis also determined that 90% of truck traffic would be from the south and 10% would originate from the north. The study also determined that the proposed project would generate 18 daily truck trips and 37 automobile trips, for a total of 55 daily trips by vehicles of all types. The traffic impact analysis was conducted based on 24 truck/trailer parking spaces and 26 automobile parking spaces, as opposed to the 19 truck/trailer parking spaces and 25 automobile parking spaces currently proposed by the project. Therefore, the attached traffic assessment is considered to provide a conservative estimate of traffic impacts for this proposal.

Based on the sum of current traffic and estimated project traffic, Eager Road would continue to operate with Level of Service that meets minimum requirements of the General Plan Circulation

Element using the daily volume thresholds presented in the General Plan. As the volume of peak hour traffic associated with the project would be minimal, the project would not change the current Level of Service at the interchange nor cause traffic signal warrants to be met. The County roadways will continue to operate at LOS B with the addition of project trips, which satisfies the General Plan's minimum requirement.

Since the project anticipates use by STAA trucks, it is expected that Caltrans would require the project applicant to coordinate with Sutter County to process a STAA Terminal Designation application. Because of this, the following mitigation measure is recommended:

> **Mitigation Measure No. 17 (Transportation):** Prior to use of this facility by Surface Transportation Assistance Act (STAA) trucks, the California Vehicle Code requires that the access route and facility be established and meet Terminal Access (TA) classification requirements. The applicant can initiate the TA application process by obtaining an application package from the Sutter County Development Services Department and submitting a completed application along with the required fees. Sutter County Development Services along with the Caltrans District Truck Coordinator will evaluate the proposed route for use by STAA Trucks and develop a list of improvements that will need to be made before the STAA Route can be approved. All expenses for TA evaluation, engineering, and improvements required to make the access route and facility meet TA classification requirements shall be borne by the applicant.

Pedestrian Facilities

There are few developed areas around the project to create pedestrian travel to and from the site. Any pedestrians would use the roadway shoulder or edge of pavement, as would be the case for any current pedestrians. As the number of additional vehicle trips caused by the project is low and very few if any pedestrians are likely, the project's impact to pedestrian facilities is not significant, and mitigation is not required.

Bicycle Facilities

The same issues affecting pedestrian travel also affect bicycles at this location. The project's distance to potential employee residences is too far to make bicycling a feasible option, the project's limited trip generation would not result in any new vehicle / bicycle conflicts or exacerbate current deficiencies, and the project's impact to bicycle facilities and travel is not significant, therefore mitigation is not required.

Transit

Some employees could elect to use transit service if it was convenient to the site. Yuba-Sutter Transit provides service to the City of Live Oak north of the project, but that route does not leave SR 99. The closest regular Yuba-Sutter Transit stop is to the south on Northgate Drive and is about 2.5 miles away. This distance is generally beyond normal expectations for regular transit use. Because few truckers riding transit are anticipated, the project's impact on transit use based on ridership is not significant, and mitigation is not required.

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's (OPR's) 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. The County has not adopted a threshold of significance for VMT or adopted guidelines or policies for dealing with VMT. Therefore, the VMT impact assessment in this IS/MND uses the guidance in OPR's Technical Advisory.

Screening criteria can be used to quickly identify whether sufficient evidence exists to presume a project would have a less-than-significant VMT impact without conducting a detailed study. Projects meeting at least one of the criteria below can be presumed to have a less-than-significant VMT impact, absent substantial evidence that the project would lead to a significant impact. Of these screening criteria, "small projects" applies to the proposed project.

- Small projects
- Projects near transit stations
- Affordable residential development
- Local-serving retail
- Projects in low VMT-generating area

A “small project”, as defined in the Technical Advisory, is a project that generates 110 automobile trips daily or less. As noted in a), the project is estimated to generate 18 daily truck trips and 37 automobile trips, for a total of 55 daily trips by vehicles of all types. Furthermore, this determination was based on the assumption the project would include 24 truck/trailer parking spaces and 26 automobile parking spaces, as opposed to the 19 truck/trailer parking spaces and 25 automobile parking spaces currently proposed by the project. Therefore, the traffic assessment is considered to provide a conservative estimate of total daily vehicle trips. The project would be considered a small project and can be presumed to have a less-than-significant impact on VMT.

c) ***Less than significant impact.*** The project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Typically impacts of a project to safety on Caltrans facilities remains an issue of significance. Under current practice, safety impacts on state facilities are typically considered within the context of queuing on off-ramps and in turn lanes at intersections, truck turning requirements, and the need for alternative traffic control devices. Queuing that spills over from a turn lane or extends down an off-ramp to the mainline freeway could represent significant safety issues. Intersections where truck paths leave the pavement or encroach into opposing lanes are a safety issue. Operation of an intersection with inappropriate traffic control devices would also represent a potential safety issue.

The project could add a small amount of automobile and truck traffic though the State Route 99 / Eager Road interchange. However, because current traffic volumes are already low, this small increase would not result in any appreciable increase in queueing that might cause a safety issue as it relates to mainline State Route 99. The ramp terminal intersections are currently stop controlled and the addition of project traffic would not result in the need for signalization at these low volume levels. Eager Road was recently designated as a STAA terminal route and STAA trucks are permitted on Eager Road. Exhibits were provided by the project engineer demonstrating truck turning templates for completing turns using the on and off ramps at the Highway 99 interchange in various scenarios. The exhibits were requested by Caltrans and were provided to them for review. Caltrans responded to the exhibits by stating that they have no further comments at this time. No improvements are likely to be needed.

Sight Distances

The alignment of Eager Road in this area is level and straight. As a result, the view measured 15 feet from the edge of the travel way looking west to the SR 99 interchange would satisfy Caltrans Minimum Sight Distance (Table 201.1 500 feet at 55 mph) and Corner Sight Distance (Table 405.1a 925 feet at 55 mph) requirements. However, trees just west of the driveway will need to be trimmed or removed to provide a clear line of sight for vehicles.

The view looking east from the new driveway is affected by its close proximity to the Live Oak Blvd intersection and by the trees that grow along the right of way of the adjoining parcel. These trees will likely need to be trimmed to provide a clear line of sight to Live Oak Blvd from the cab of a truck. The new driveway is about 150 feet outside of the Eager Road / Live Oak Blvd intersection. That distance satisfies Minimum Sight Distance at 15 mph (9,150 feet), but not Corner Sight Distance (Table 405.1a 425 feet at 55 mph) requirements. The 25 mph speed is applicable at the corner because traffic turning left or right from Live Oak Blvd onto Eager Road will only be traveling at 20 to 25 mph. The two standards indicate that westbound traffic will have adequate time to see a vehicle leave the project and come to a stop (i.e., minimum sight distance). However when vehicles exit the site, westbound traffic will very likely need to slow as they approach that vehicle (i.e., corner sight distance). The speed limit on Eager Road is 55 mph and per Table 201.1 Sight Distance Standards, the required stopping sight distance is 500 feet. The portion of Eager Road where cars will likely be traveling at 55 mph is west of the project site, before slowing down to approach the Live Oak Boulevard / Eager Road intersection. There is more than 500 feet of clear visual distance from the entrance to the site to where vehicles would be traveling at this speed.

Access

The site plan indicates that the project driveway will be 50 feet wide. No paved shoulders exist in this area of Eager Road and no shoulder improvements beyond the driveway described above are proposed. Functionally, the current layout provides the pavement width needed to allow trucks to enter or exit the site without encroaching into the opposing travel lanes on Eager Road or leaving the pavement. However, exiting trucks headed easterly would occupy the entire width of the driveway when making that turn. This layout does not provide formal acceleration and deceleration lanes nor is a paved shoulder available in advance of the driveway. While the current plan would require trucks to slow in the through travel lane when entering the site, such features are not judged to be necessary because the potential for conflicts with following vehicles is very low due to the very low number of trucks at the site. In addition, few if any trucks are likely to leave the site by turning right.

d) ***Less than significant impact.*** The project would not result in inadequate emergency access. The project site would have sufficient driveway width and depth to accommodate emergency apparatus and turn-around onsite. This would provide adequate access for emergency vehicles and a less-than-significant impact is anticipated.

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

(County of Sutter, General Plan 2030. 2011)

(Governor's Office of Planning and Research, Technical Advisory on Evaluating Transportation Impacts in CEQA. 2018)

(KD Anderson & Associates, Inc., *Moon Truck and Trailer Parking and Repair Facility, Sutter Co., CA: Traffic Impact Analysis and Operational Assessment. 2022)*

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 § 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:				
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 § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Responses:

a) ***Less than significant with mitigation incorporated.*** 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 March 21, 2023, 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

Of these seven, responses were received from two tribes. The Mooretown Rancheria stated that they have no record of any cultural resources in the area, though they reserved the right to be notified if any new information or human remains are found. The UAIC has requested the following mitigation measure be implemented to minimize impacts to existing or previously undiscovered Tribal Cultural Resources (TCRs), archaeological, or cultural resources for any ground disturbing activities:

Mitigation Measure No. 18 (Tribal Cultural Resources): If any suspected TCRs are discovered during 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 will make recommendations for further evaluation and treatment as necessary. Tribal Representatives act as a representative of their Tribal government and are qualified professionals that have the authority and expertise to identify sites or objects of cultural value to Native American Tribes and recommend appropriate treatment of such sites or objects. If human remains, or suspected human remains, are discovered the appropriate state and federal laws shall be followed.

Preservation in place is the preferred option for mitigation of TCRs under CEQA and UAIC protocols, and every effort shall be made to preserve the resources in place, including through project redesign, if feasible. When avoidance is infeasible, the preferred treatment by UAIC is to record the resource, minimize handling of cultural objects, leaving objects in place within the landscape, or returning objects to a location nearby where they will not be subject to future impacts.

Work at the discovery location cannot resume until all necessary investigation and evaluation of the discovery under the requirements of CEQA have been satisfied.

With this mitigation measure in place, a less-than-significant impact to tribal cultural resources is anticipated.

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, 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?	☐	☐	☐	☒
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. This project would only require improvements to onsite utilities such as onsite water (via well) and septic tanks to serve the proposed repair shop as well as a new storm water detention basin to handle site runoff. No additional impacts would occur to power, natural gas, or telecommunications facilities to serve the project. Electric power needs would be satisfied by tying into existing utilities provided at the site.

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 on-site drainage improvements are addressed in this environmental document, along with mitigation measures. The applicant is required to obtain coverage under the State Construction General Permit, which requires implementation of a SWPPP that includes best management practices to control runoff, erosion, and sedimentation from the site. 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 a significant water demand other than for landscaping and to serve the proposed repair shop and caretaker residence through use of an existing well. 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 in the Project Description, the project proposes to use an existing onsite well and septic system including a septic holding tank for the repair shop that would be pumped by a septic pumper registered with Sutter County. Therefore, a demand would not be placed on a local sanitary sewer system, and no impact is anticipated.

d-e) ***Less than significant impact.*** 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)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
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.*** There are no state responsibility areas in Sutter County. A California Department of Forestry and Fire Protection map indicates no fire hazard severity zones have been designated

on the project site or in the vicinity. The project would not be subject to any wildfire hazards. No impacts are anticipated.

(California Department of Forestry and Fire Protection, Sutter County Draft Fire Hazard Severity Zones in LRA, 2007)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. MANDATORY FINDINGS OF SIGNIFICANCE.				
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 will 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 that 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 Measure No. 2, proposed in the Cultural Resources section, would protect possible disturbance of human remains should they be encountered. Mitigation Measure No. 18, proposed in the Tribal Cultural Resources section, would protect any tribal cultural resources encountered.

b) ***Less than significant impact with mitigation incorporated.*** The potential cumulative impacts of development of the site were accounted for in the Sutter County General Plan EIR. The potential environmental effects identified in this IS/MND have been considered in conjunction with each other and their likelihood of generating other potentially significant effects. As described in this IS/MND, the potential environmental effects of the project would either be less than significant or would have no impact at all. Where the project involves potentially significant effects these effects would be avoided or reduced to a level that is less than significant with proposed mitigation measures in place and/or compliance with applicable regulations and conditions of

approval and would not be cumulatively significant. The various potential environmental effects of the project would not combine to generate any potentially significant cumulative effects. Based on the analysis conducted in this IS/MND, and with the mitigation measures proposed for this project, this 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, General Plan 2030. 2011)

MITIGATION MONITORING PROGRAM – Project #U22-0020 (Hussain)

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. ● 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	Prior to construction activities/ Ongoing	FRAQMD/ Development Services

Mitigation Measure	Timing	Monitoring Agency
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): 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 §5097.98. If the remains are recognized to be those of a Native American, the County Coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC shall initiate the process of contacting the most likely descendant and the disposition of the remains pursuant to Public Resources Code §5097.98.	During construction activities	Construction personnel/ County Coroner
Mitigation Measure No. 3 (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 number for each construction project.	During and Prior to Completion of the Project	RWQCB/ Development Services Engineering Division

Mitigation Measure	Timing	Monitoring Agency
NPDES GENERAL CONSTRUCTION PERMIT – Since the project size is more than one acre, prior to construction the applicant shall file a Notice of Intent 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.		
Mitigation Measure No. 4 (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. 5 (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 Certificate of Occupancy or Commercial Use of the Site	Development Services Engineering Division
Mitigation Measure No. 6 (Hydrology and Water Quality): PRIVATE DRAINAGE FACILITIES MAINTENANCE AGREEMENT. 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	Prior to Certificate of Occupancy or Commercial Use of the Site	Development Services Engineering Division

Mitigation Measure	Timing	Monitoring Agency
for stormwater discharges as identified in the drainage study and approved by Sutter County.		
Mitigation Measure No. 7 (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. 8 (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. 9 (Noise): All mobile or fixed noise-producing used on the project site that is regulated for noise output by a federal, state, or local agency shall comply with such regulations while in the course of project activity.	During construction activities	Construction personnel
Mitigation Measure No. 10 (Noise): Electrically powered equipment shall be used instead of pneumatic or internal-combustion powered equipment, where feasible.	During construction activities	Construction personnel
Mitigation Measure No. 11 (Noise): Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive uses.	During construction activities	Construction personnel
Mitigation Measure No. 12 (Noise): Project area and site access road speed limits shall be established and enforced during the construction period.	During construction activities	Construction personnel
Mitigation Measure No. 13 (Noise): Nearby residences shall be notified of construction schedules so that arrangements can be made, if desired, to limit their exposure to short-term increases in ambient noise levels.	Prior to start of construction	Construction personnel
Mitigation Measure No. 14 (Noise): The construction of a 9-foot-tall solid noise barrier along the western project property line. The location of the solid noise barrier is illustrated in Figure 4 of the noise study. The noise barrier could take the form of a masonry wall, earthen berm, or	Prior to Certificate of Occupancy or Commercial Use of the Site	Development Services

Mitigation Measure	Timing	Monitoring Agency
combination of the two. Other materials may be acceptable but should be reviewed by an acoustical consultant prior to construction.		
Mitigation Measure No. 15 (Noise): All equipment operations associated with the proposed truck and trailer repair shop must occur within the shop building and with all bay doors in the closed position at all times. The sound transmission loss provided by building facades and doors in the closed position is estimated to be approximately 15 dB.	Ongoing	Development Services
Mitigation Measure No. 16 (Noise): Trucks requiring on-site refrigeration unit operation are restricted from parking in westernmost truck parking stalls (spaces 15-19) during nighttime hours (10:00 p.m. to 7:00 a.m.). Specifically, all trucks requiring on-site refrigeration unit operations would be limited to truck parking stalls 1-14 during nighttime hours. The locations of the truck parking stalls are shown in Figures 2 and 4 of the noise study.	Ongoing	Development Services
Mitigation Measure No. 17 (Transportation): Prior to use of this facility by Surface Transportation Assistance Act (STAA) trucks, the California Vehicle Code requires that the access route and facility be established and meet Terminal Access (TA) classification requirements. The applicant can initiate the TA application process by obtaining an application package from the Sutter County Development Services Department and submitting a completed application along with the required fees. Sutter County Development Services along with the Caltrans District Truck Coordinator will evaluate the proposed route for use by STAA Trucks and develop a list of improvements that will need to be made before the STAA Route can be approved. All expenses for TA evaluation, engineering, and improvements required to make the access route and facility meet TA classification requirements shall be borne by the applicant.	Prior to use of the site by STAA trucks	Development Services Engineering Division
Mitigation Measure No. 18 (Tribal Cultural Resources): If any suspected TCRs are discovered during 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).	During construction activities	Construction personnel

Mitigation Measure	Timing	Monitoring Agency
The Tribal Representative will make recommendations for further evaluation and treatment as necessary. Tribal Representatives act as a representative of their Tribal government and are qualified professionals that have the authority and expertise to identify sites or objects of cultural value to Native American Tribes and recommend appropriate treatment of such sites or objects. If human remains, or suspected human remains, are discovered the appropriate state and federal laws shall be followed. Preservation in place is the preferred option for mitigation of TCRs under CEQA and UAIC protocols, and every effort shall be made to preserve the resources in place, including through project redesign, if feasible. When avoidance is infeasible, the preferred treatment by UAIC is to record the resource, minimize handling of cultural objects, leaving objects in place within the landscape, or returning objects to a location nearby where they will not be subject to future impacts. Work at the discovery location cannot resume until all necessary investigation and evaluation of the discovery under the requirements of CEQA have been satisfied.		

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U.S. Fish and Wildlife Service. 2022. *Critical Habitat Mapper*

U.S. Fish and Wildlife Service. 2022. *National Wetlands Inventory*

Attachments:

1. Proposed Development Plans
2. Environmental Noise and Vibration Assessment
3. Draft Analysis of Impacts to Air Quality and Greenhouse Gas from Proposed Truck Parking and Repair Yard
4. Transportation Impact Analysis and Traffic Operational Assessment

MOON TRANSPORT
PROJECT PLANS FOR CONSTRUCTION OF
NEW TRUCK YARD AT EAGER ROAD
IN YUBA CITY

TO BE SUPPLEMENTED BY CALTRANS STANDARD PLANS DATED 2018

INDEX OF SHEETS

DEVELOPER:

SHAFQAT HUSSAIN
MOON TRANSPORT
2026 NICHOLAS DRIVE
YUBA CITY, CALIFORNIA 95993
PHONE: (530) 788-6397

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 SHAFQAT HUSSAIN 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 NAR HEER.

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.

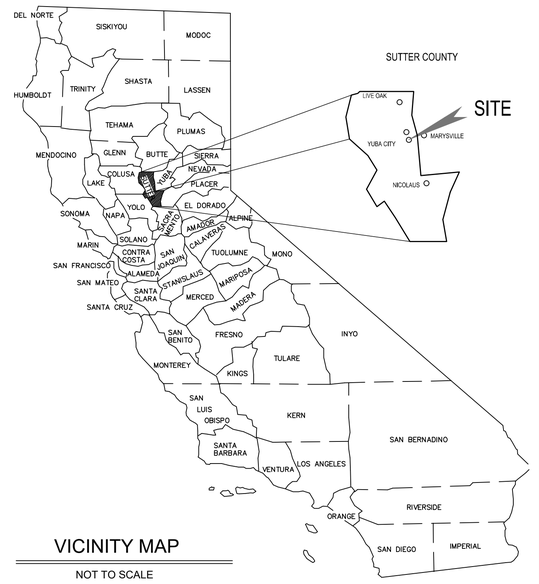
26. NO SITE MATERIALS CAN BE STORED WITHIN THE COUNTY RIGHT-OF-WAY.

0 100' 200' 400' 1,600'

SCALE 1"=200'

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



VICINITY MAP

NOT TO SCALE

MHM INCORPORATED, DRIVE TRANSPORTATION, OR YUBA CITY 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.
DIRECTOR OF DEVELOPMENT SERVICES
COUNTY OF SUTTER
RCE 55634 EXP 12-31-20

DATE

SUBMITTED BY:

PREPARED UNDER THE SUPERVISION OF

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

03-07-2023
DATE

DATE OF TOPOGRAPHIC SURVEY: 11-30-20
DATE OF PLANS: 03-07-2023
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.: 20-189
FILE NAME: 20189MAST

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

MOON TRUCK AND TRAILER REPAIR
NEW TRUCK YARD
EAGER ROAD
APN 10-260-067

TITLE SHEET, LOCATION & VICINITY MAP

T-1
DATE: 03/07/2023
SHEET 1
SHEETS 7


EAGER ROAD
E ONSTOTT ROAD
(E) POWER POLE
(E) POWER POLE
(E) POWER POLE
(E) POWER POLE
(E) POWER POLE
(E) POWER POLE
(E) POWER POLE
EXISTING BUILDING TO REMAIN
EXISTING BUILDING TO REMAIN
EXISTING BUILDING TO BE REMOVED
(E) SEPTIC SYSTEMS TO BE DESTROYED
(E) TREE TO BE REMOVED TYP. (4 TOTAL)
(E) WELL TO REMAIN
(E) POWER POLE TO REMAIN
(E) SEPTIC SYSTEM TO BE DESTROYED
(E) FENCE TO REMAIN
MANTLE 1
MANTLE 2
65.00
65.00
65.00
0 10' 20' 40' 80'
LEGEND
EXISTING
PROPOSED
SURVEY MONUMENT/BENCH MARK
UTILITY POLE
STREET LIGHT
GUY WIRE AND ANCHOR
CONSTRUCTION CENTERLINE
TOP OF CANAL EMBANKMENT
TOE OF CANAL
STORM DRAIN
SANITARY SEWER
WATER MAIN
SEWER FORCE MAIN
GAS MAIN
UNDERGROUND TELEPHONE
OVERHEAD ELECTRIC
FENCE
SPOT ELEVATION
CONTOUR LINE
ASSESSOR'S PARCEL NO.
PROPERTY LINE
TREE
BUILDING
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
12"SD
12"SS
8"W
20"FM
UG
UT
OE
X (E) 25.0
25.0
25
25-025-254
TO BE REMOVED
TO BE REMOVED

REGISTERED PROFESSIONAL ENGINEER
JOHN S MALLEN
No. C62315
STATE OF CALIFORNIA

REV.	DATE	BY	APPR.	DESCRIPTION

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DRAWN BY: KAS
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FILE NAME: 20189MAST

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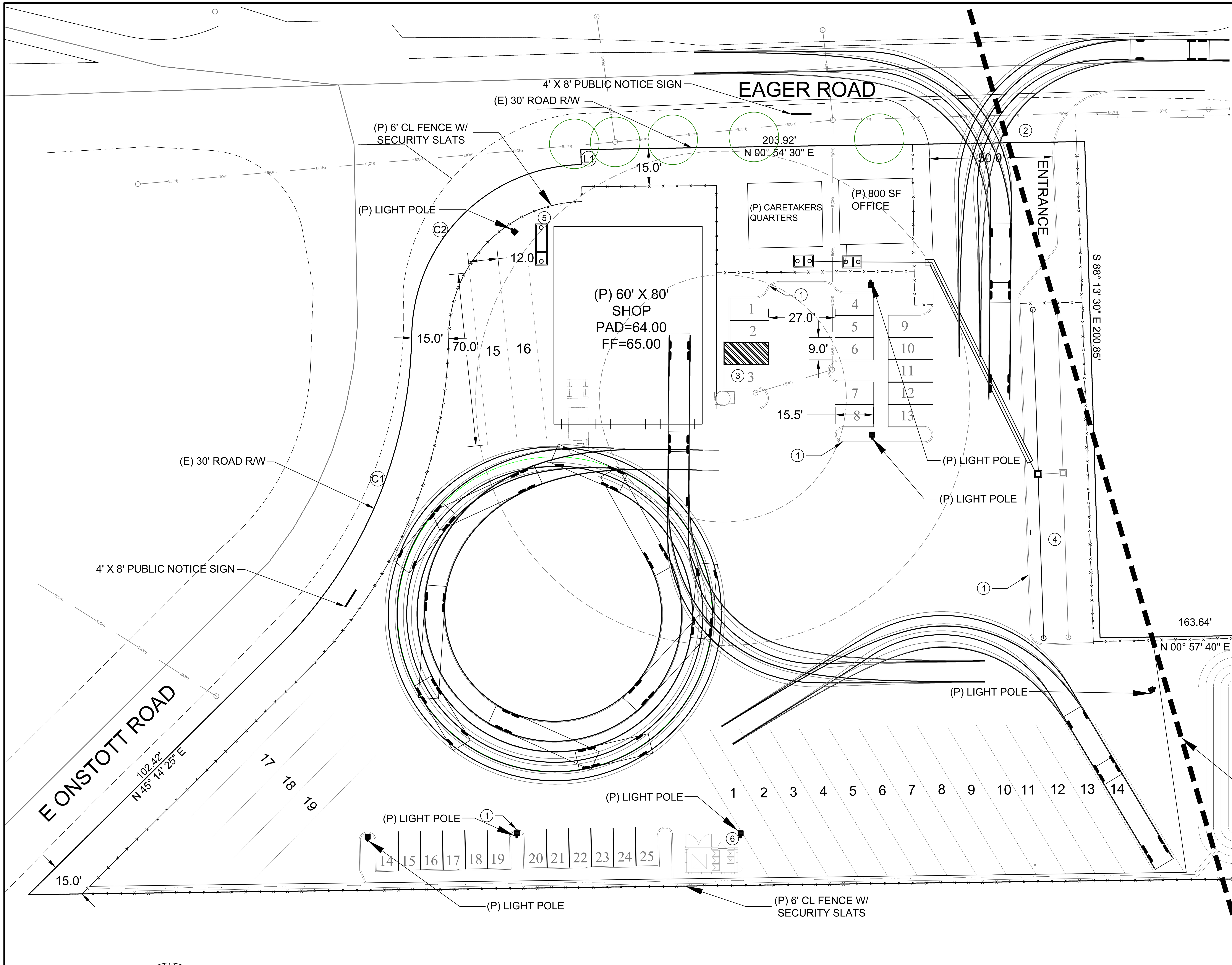
ENGINEERING-SURVEYING
1204 "E" STREET
MARYSVILLE, CALIF. 95901-0053
Ph: (530)742-6485/Fax(530)742-5639

MOON TRUCK AND TRAILER REPAIR
NEW TRUCK YARD
EAGER ROAD
APN 10-260-067

SITE SURVEY AND LEGEND

L-1
DATE: 03/07/2023
SHEET 2 SHEETS 7



PARKING :

PROJECT PROVIDED:

REQUIRED NUMBER OF CAR PARKING STALLS = 19 TRUCKS / 1.5 + 2*5,600/1000 = 25

TOTAL NUMBER OF CAR PARKING STALLS = 25 STALLS (INCLUDING 1 ACCESSIBLE PARKING STALL)

PARKING DIMENSIONS:

STANDARD STALL SIZE = 9' X 15.5'

STALL DRIVE ISLE = 27'

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

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. LEACH FIELD PER MHM INC PLANS DATED APRIL 13, 2022
5. HOLDING TANK PER MHM INC PLANS DATED MARCH 9, 2022
6. TRASH ENCLOSURE

CURVE	DELTA	RADIUS	LENGTH	CHORD
C1	44°26'44"	180.00'	139.63'	136.16'
C2	88°02'50"	70.00'	107.57'	97.29'

LINE	DIRECTION	LENGTH
L1	88°42'22"	6.07'

0 10' 20' 40' 80'

REV.	DATE	BY	APPR.	DESCRIPTION

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MOON TRUCK AND TRAILER REPAIR
NEW TRUCK YARD
EAGER ROAD
APN 10-260-067

LAYOUT AND PAVEMENT DELINEATION PLAN

PD-1
DATE: 03/07/2023
SHEET 3 SHEETS 7

EAGER ROAD
ENTRANCE
E ONSTOTT ROAD
(P) 60' X 80'
SHOP
PAD=64.00
FF=65.00
ASPHALT CONCRETE (AC)
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) (CITY RIGHT-OF-WAY)
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)
PLANTERS
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.
BUILDING PAD AREA:
60' X 80' SHOP PAD
MHM
0 10' 20' 40' 80'

REV.	DATE	BY	APPR.	DESCRIPTION

DESIGNED BY: KAS
DRAWN BY: KAS
CHECKED BY: JSM
JOB NO.: 20-189
FILE NAME: 20189MAST

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M·H·M
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MARYSVILLE, CALIF. 95901-0053
Ph: (530)742-6485/Fax(530)742-5639

MOON TRUCK AND TRAILER REPAIR
NEW TRUCK YARD
EAGER ROAD
APN 10-260-067

ENGINEERED FILL PLAN

E-1
DATE: 03/07/2023
SHEET 4
SHEETS 7

PROFESSIONAL ENGINEER JOHN S MALLEN STATE OF CALIFORNIA

REV.	DATE	BY	APPR.	DESCRIPTION

DESIGNED BY: KAS
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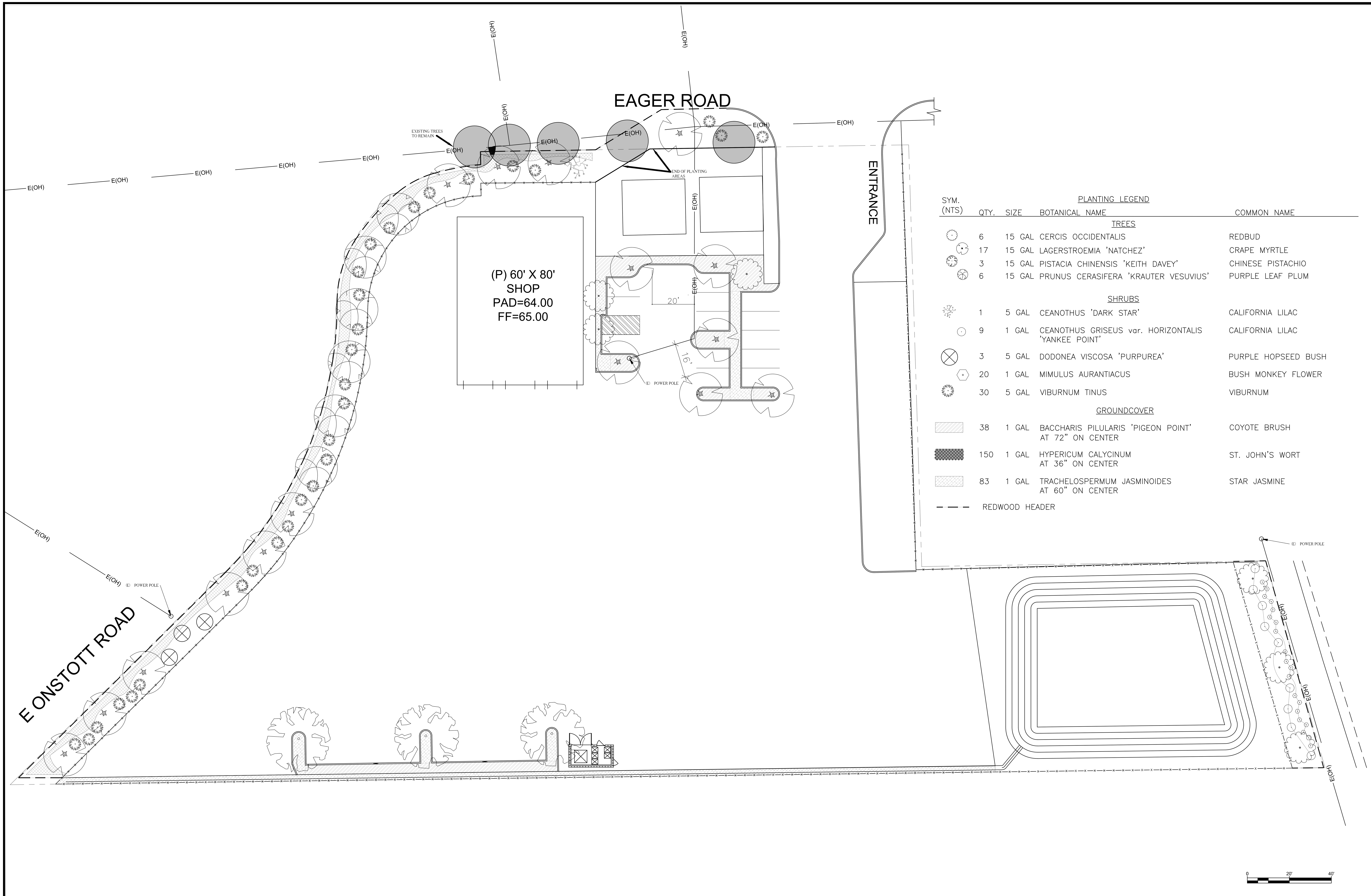
MOON TRUCK AND TRAILER REPAIR
NEW TRUCK YARD
EAGER ROAD
APN 10-260-067

GRADING PLAN

G-1
DATE: 03/07/2023
SHEET 5
SHEETS 7



PLANTING LEGEND

SYM. (NTS)	QTY.	SIZE	BOTANICAL NAME	COMMON NAME
			TREES	
	6	15 GAL	CERCIS OCCIDENTALIS	REDBUD
	17	15 GAL	LAGERSTROEMIA 'NATCHEZ'	CRAPE MYRTLE
	3	15 GAL	PISTACIA CHINENSIS 'KEITH DAVEY'	CHINESE PISTACHIO
	6	15 GAL	PRUNUS CERASIFERA 'KRAUTER VESUVIUS'	PURPLE LEAF PLUM
			SHRUBS	
	1	5 GAL	CEANOTHUS 'DARK STAR'	CALIFORNIA LILAC
	9	1 GAL	CEANOTHUS GRISEUS var. HORIZONTALIS 'YANKEE POINT'	CALIFORNIA LILAC
	3	5 GAL	DODONEA VISCOSA 'PURPUREA'	PURPLE HOPSEED BUSH
	20	1 GAL	MIMULUS AURANTIACUS	BUSH MONKEY FLOWER
	30	5 GAL	VIBURNUM TINUS	VIBURNUM
			GROUNDCOVER	
	38	1 GAL	BACCHARIS PILULARIS 'PIGEON POINT' AT 72" ON CENTER	COYOTE BRUSH
	150	1 GAL	HYPERICUM CALYCINUM AT 36" ON CENTER	ST. JOHN'S WORT
	83	1 GAL	TRACHELOSPERMUM JASMINOIDES AT 60" ON CENTER	STAR JASMINE
— — —			REDWOOD HEADER	

BOTANICA LANDSCAPES
CONSTRUCTION * MAINTENANCE * DESIGN
P.O. BOX 569 YUBA CITY, CA. 95992
LICENSE No. 409125 DIR No. 1000003139
P: (530) 671-1029
F: (530) 671-3326
E: estimating@botanica.net

REVISIONS

1	4/13/22
2	12/1/22
3	1/26/23
4	

PLANTING PLAN
1" = 20'

MOON TRUCK & TRAILER REPAIR
10-260-067

DRAWN BY: C. TOMEI
DATE: 8-31-2021
APPROVED:
COMMERCIAL
LICENSE: 409125

L1

1 OF SHEET 4

Environmental Noise & Vibration Assessment

Moon Truck & Trailer Repair

Sutter County, California

BAC Job # 2021-131

Prepared For:

Shafqat Hussain

2026 Nicholas Drive
Yuba City, CA 95993

Prepared By:

Bollard Acoustical Consultants, Inc.

Dario Gotchet, Principal Consultant

August 7, 2023

BOLLARD
Acoustical Consultants

CEQA Checklist

NOISE AND VIBRATION **– Would the Project Result in:**	**NA – Not Applicable**	**Potentially Significant Impact**	**Less than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Generation of 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?			**X**		
b) Generation of excessive groundborne vibration or groundborne noise levels?				**X**	
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?					**X**

Introduction

The proposed Moon Truck & Trailer Repair (project) is located south of Eager Road, between State Route 99 (SR 99) and Live Oak Boulevard in Sutter County, California (APN: 10-260-067). Existing land use zoning in the project vicinity include industrial (IND) and combination zoning of agricultural and commercial (AG/COM). The agriculturally zoned parcel to the west of the project property contains an existing residence. The project area with aerial imagery is shown in Figure 1. The project site plan is presented as Figure 2.

The project proposes the development of a heavy truck repair shop, and parking areas for heavy trucks and passenger vehicles. The two existing residences on the project property are proposed to be used as caretaker quarters and an office. The shop will be used for repairs on trucks, including oil changes, engine repairs, and tire installations. The shop will also perform maintenance on trailers, including brakes, tires, and general preventative work. There will be no glass repair, body work, or painting performed on the trailers. The proposed hours of operation for the truck and trailer repair shop component of the project are 8:00 a.m. to 5:00 p.m. Monday-Friday. The truck yard parking component of the project proposes 24-hour operations seven days a week. The project site will be accessed from via one point off Eager Road.

The purposes of this assessment are to quantify the existing noise and vibration environments, identify potential noise and vibration impacts resulting from the project, identify appropriate mitigation measures, and provide a quantitative and qualitative analysis of impacts associated with the project. Specifically, impacts are identified if project-related activities would cause a substantial increase in ambient noise levels at existing noise-sensitive uses in the project vicinity, or if traffic or project-generated noise or vibration levels would exceed applicable federal, state, or Sutter County standards at those noise-sensitive uses.

Noise and Vibration Fundamentals

Noise

Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and are designated as sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second, or Hertz (Hz). Definitions of acoustical terminology are provided in Appendix A.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, a decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals of pressure) as a point of reference, defined as 0 dB. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB. Another useful aspect of the decibel scale is that changes in decibel levels correspond closely to human perception of relative loudness. Noise levels associated with common noise sources are provided in Figure 3.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable and can be approximated by filtering the frequency response of a sound level meter by means of the standardized A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels.

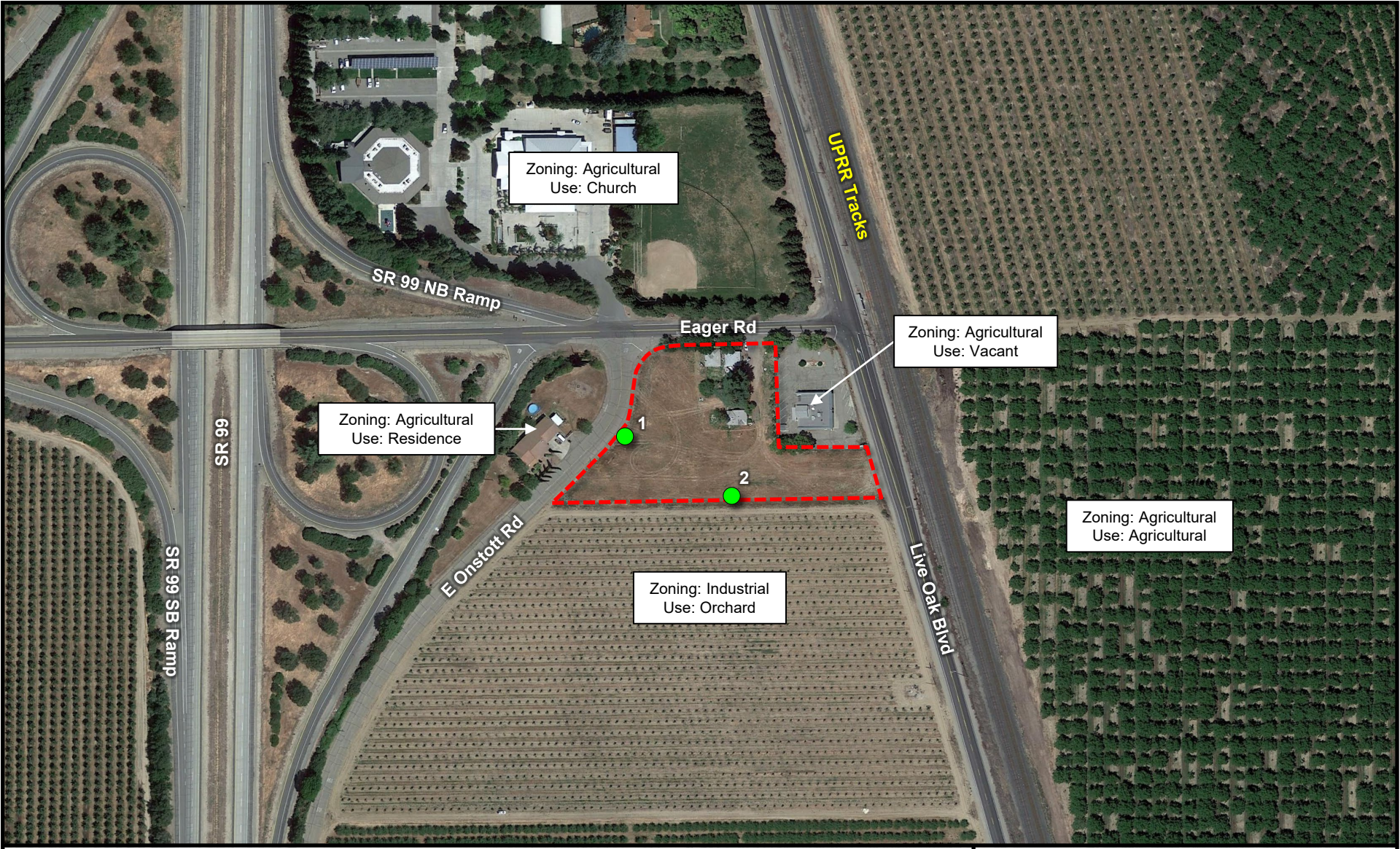
Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}). The L_{eq} is the foundation of the day-night average noise descriptor, DNL (or L_{dn}), and shows very good correlation with community response to noise. DNL is based on the average noise level over a 24-hour day, with a +10-decibel weighting applied to noise occurring during nighttime (10:00 PM to 7:00 AM) hours. The nighttime penalty is based on the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because DNL represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

Vibration

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that noise is generally considered to be pressure waves transmitted through air, while vibration is usually associated with transmission through the ground or structures. As with noise, vibration consists of amplitude and frequency. A person's response to vibration will depend on their individual sensitivity as well as the amplitude and frequency of the source.

Vibration can be described in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration in terms of velocity in inches per second peak particle velocity (IPS, PPV) or root-mean-square (VdB, RMS). Standards pertaining to perception as well as damage to structures have been developed for vibration in terms of peak particle velocity as well as RMS velocities. As vibrations travel outward from the source, they excite the particles of rock and soil through which they pass and cause them to oscillate. Differences in subsurface geologic conditions and distance from the source of vibration will result in different vibration levels characterized by different frequencies and intensities. In all cases, vibration amplitudes will decrease with increasing distance.

Human response to vibration is difficult to quantify. Vibration can be felt or heard well below the levels that produce any damage to structures. The duration of the event has an effect on human response, as does frequency. Generally, as the duration and vibration frequency increase, the potential for adverse human response increases. According to the Transportation and Construction-Induced Vibration Guidance Manual (Caltrans, April 2020), operation of construction equipment and construction techniques generate ground vibration. Traffic traveling on roadways can also be a source of such vibration. However, traffic rarely generates vibration amplitudes high enough to cause structural or cosmetic damage.



Legend

Project Boundary (Approximate)

Ambient Noise & Vibration Survey Locations

N

Scale (Feet)

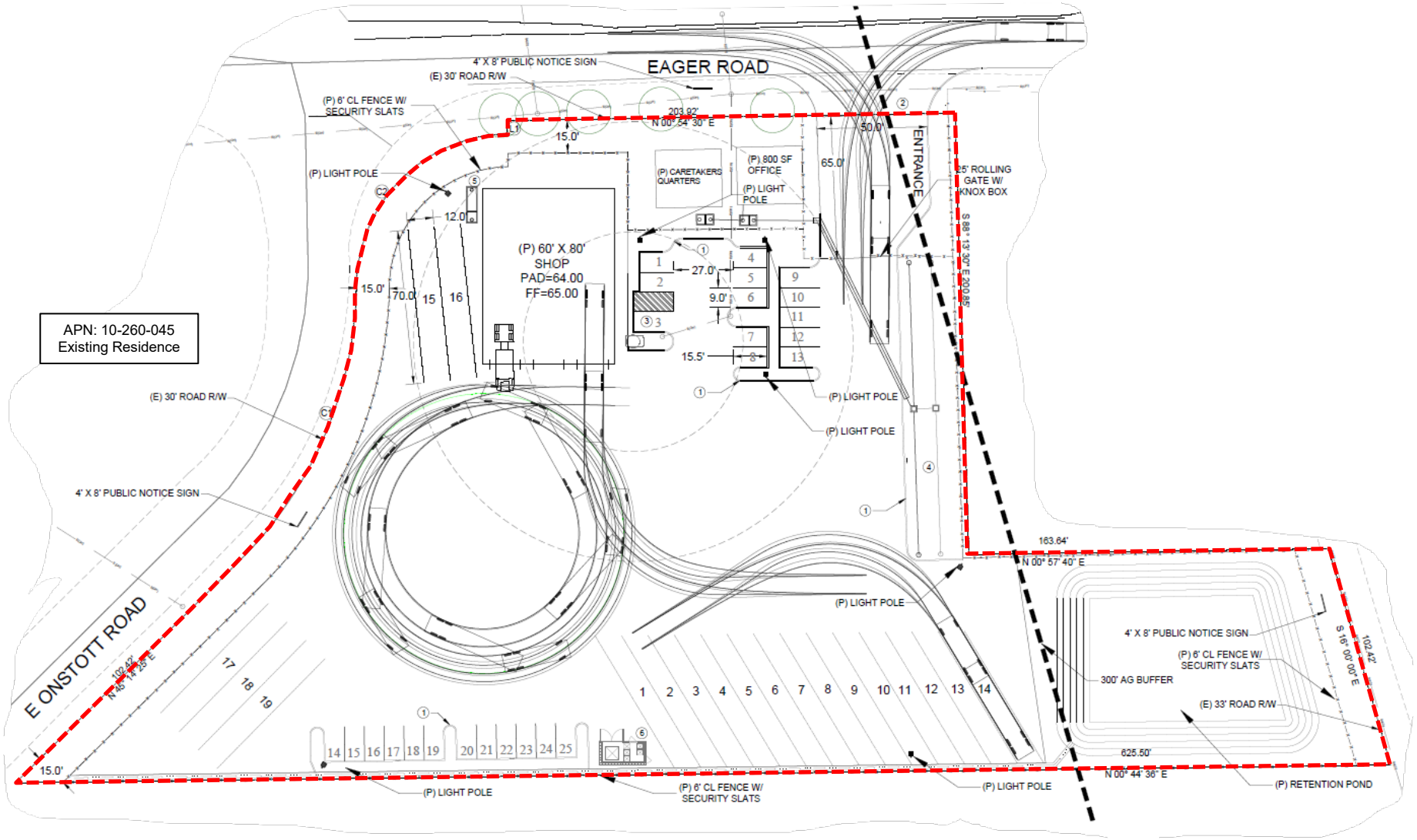
0 100 200

Moon Truck & Trailer Repair
Sutter County, California

Project Area

Figure 1

BOLLARD Acoustical Consultants



Legend

Project Boundary

N

Scale (Feet)

0 30 60

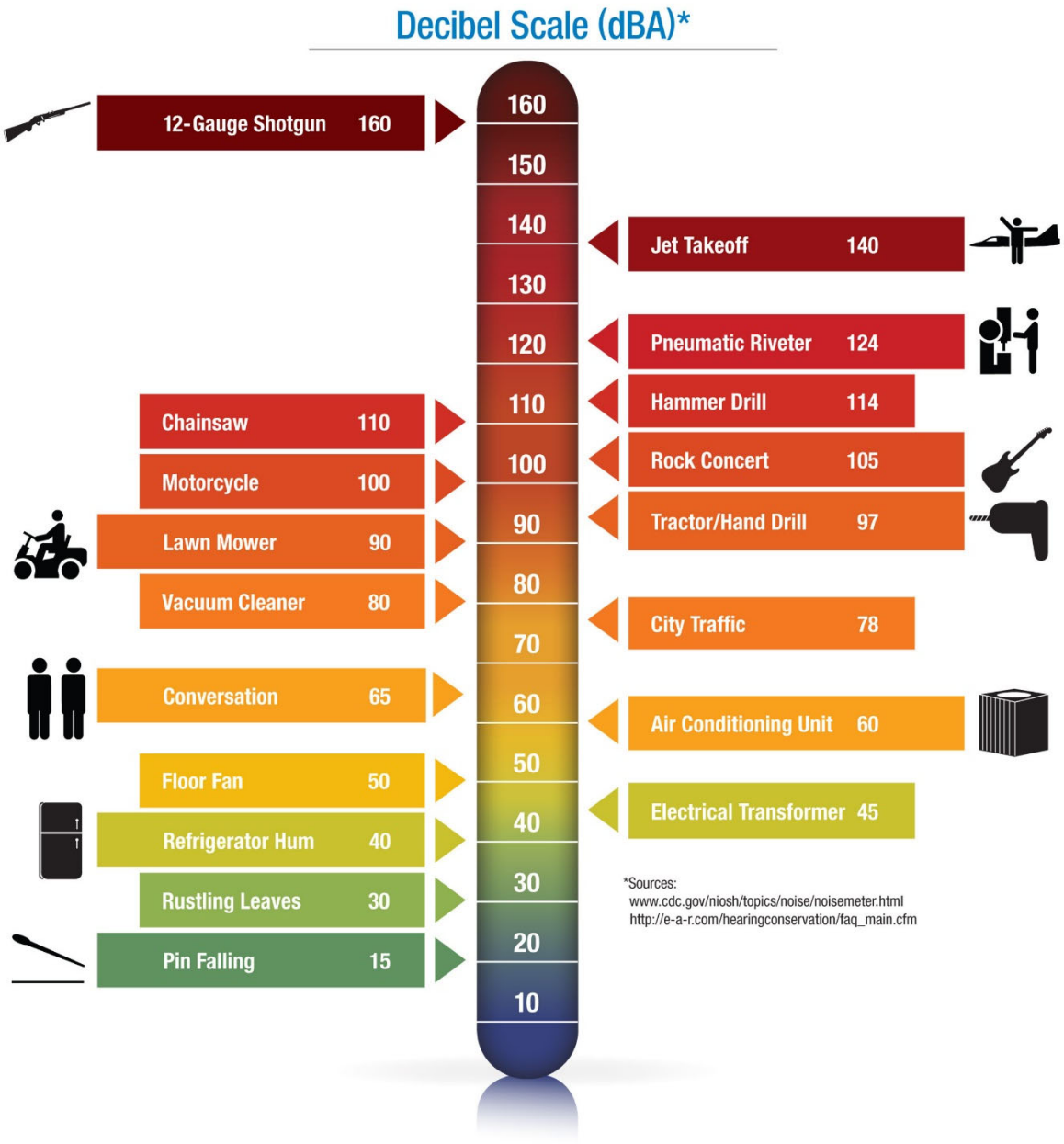
Moon Truck & Trailer Repair
Sutter County, California

Project Site Plan

Figure 2

BOLLARD Acoustical Consultants

Figure 3
Noise Levels Associated with Common Noise Sources



Environmental Setting – Existing Ambient Noise and Vibration Environment

Existing Land Uses in the Project Vicinity

Noise-sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the primary intended use of the land. Places where people live, sleep, recreate, worship and study are generally considered to be sensitive to noise because intrusive noise can be disruptive to these activities. The nearest identified existing noise-sensitive uses which could potentially be affected by the project consists of a residence constructed on an agricultural zoned parcel to the west (APN: 10-260-045), and a church located an agricultural/commercial zoned parcel to the north (APN: 10-220-064).

Existing Overall Ambient Noise Environment within the Project Vicinity

The existing ambient noise environment within the project vicinity is defined primarily by noise from traffic on SR 99 to the west, intermittent operations on existing Union Pacific Railroad (UPRR) tracks to the east, and to a lesser extent by traffic on Eager Road and Live Oak Boulevard to the north and east (respectively). To generally quantify existing ambient noise environment within the project vicinity, BAC conducted long-term (96-hour) ambient noise level measurements at two (2) locations October 21st through October 24th, 2022. The long-term noise survey locations are shown in Figure 1. Photographs of the noise survey sites are provided in Appendix B.

Larson Davis Laboratories (LDL) Model 820 and LxT precision integrating sound level meters were used to complete the long-term noise level survey. The meters were calibrated immediately before and after use with an LDL Model CA200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all specifications of the American National Standards Institute requirements for Type 1 sound level meters (ANSI S1.4). The results of the long-term ambient noise survey are shown numerically and graphically in Appendices C and D (respectively) and are summarized in Table 1.

Table 1
Summary of Long-Term Ambient Noise Survey Results 10/21/22 – 10/24/22[1]

			Average Measured Hourly Noise Levels (dB)[3]			
			Daytime		Nighttime	
Survey Location[2]	Date	DNL (dB)	L_{eq}	L_{max}	L_{eq}	L_{max}
Site 1: On project site adjacent to residence at 3900 E Onstott Rd	10/21/22	66	59	77	60	80
	10/22/22	62	59	79	55	77
	10/23/22	62	60	81	55	73
	10/24/22	63	59	78	56	75
Site 2: On project site approx. 315' from centerline of Live Oak Blvd	10/21/22	66	59	75	60	79
	10/22/22	62	59	74	55	71
	10/23/22	63	59	76	55	72
	10/24/22	64	59	75	57	73

[1] Detailed summaries of the noise monitoring results are provided in Appendices C and D.
[2] Long-term ambient noise monitoring locations are identified in Figure 1.
[3] Daytime hours: 7:00 AM to 10:00 PM | Nighttime hours: 10:00 PM to 7:00 AM

Source: Bollard Acoustical Consultants, Inc. 2022.

As shown in Table 1, measured day-night average levels (DNL) and average measured hourly noise levels (L_{eq} and L_{max}) during the 96-hour monitoring period were similar for both sites.

Existing Traffic Noise Levels along Project Area Roadway Network

To predict traffic noise levels along existing roadway networks, modelling is commonly used rather than monitoring. The FHWA Traffic Noise Model (FHWA-RD-77-108) was used to quantify existing traffic noise levels at the existing sensitive land uses nearest to the project area roadway network. The FHWA Model was also used to quantify the distances to the 60, 65 and 70 dB DNL traffic noise contours for these roadways. The FHWA Model predicts hourly average (L_{eq}) values for free-flowing traffic conditions. Estimates of the hourly distribution of traffic for a typical 24-hour period were used to develop DNL values from L_{eq} values.

Existing traffic data in the form of AM and PM peak hour intersection turning movements were provided by the project transportation consultant (KDAnderson & Associates, Inc. [KDA]). Those data were converted to Average Daily Traffic (ADT) segment volumes by applying a factor of 5 to the sum of AM and PM peak hour conditions. Other inputs were obtained from BAC observations and noise measurement data. The existing traffic noise levels at the distances representing the nearest sensitive land uses to the project area roadways and distances from the centerlines of selected roadways to the 60 dB, 65 dB and 70 dB DNL contours are summarized in Table 2. Appendix E contains the FHWA Model inputs for existing conditions.

Table 2
Existing Traffic Noise Levels at Nearest Receptors and Distances to DNL Contours

#	Roadway	Segment Description	DNL at Nearest Sensitive Receptor	Distance to Contour (ft)		
				70 dB DNL	65 dB DNL	60 dB DNL
1	Eager Rd	West of SR 99 SB Ramps	63	18	39	84
2	Eager Rd	SR 99 SB Ramps to SR 99 NB Ramps	57	20	43	92
3	Eager Rd	SR 99 NB Ramps to Project Dwy	58	16	34	74
4	Eager Rd	Project Dwy to Live Oak Blvd	48	16	34	73
5	SR 99 SB Ramps	South of Eager Rd	34	7	15	33
6	SR 99 NB Ramps	North of Eager Rd	51	14	29	64

Source: FHWA-RD-77-108 and KDA. Appendix E contains FHWA Model inputs for existing conditions.

Existing Ambient Vibration Environment within Project Area

During BAC staff visits to the project site, vibration levels were below the threshold of perception within the project area. Nonetheless, to quantify existing vibration levels within the project area, BAC conducted short-term (15-minute) vibration measurements at the locations identified in Figure 1 on October 20th, 2022. Photographs of the vibration survey equipment are provided in Appendix B.

A Larson-Davis Laboratories Model LxT precision integrating sound level meter equipped with a vibration transducer was used to complete the measurements. The results are summarized in Table 3.

Table 3
Summary of Short-Term Ambient Vibration Survey Results – October 19th, 2022

Survey Location	Time	Average Measured Vibration Level (VdB)
Site 1: On project site adjacent to residence at 3900 E Onstott Rd	11:00 a.m.	47
Site 2: On project site approx. 315' from centerline of Live Oak Blvd	1:28 p.m.	57

Source: Bollard Acoustical Consultants, Inc. 2022.

Table 3 data indicate that measured average vibration levels at the project area were below the 65 VdB threshold of perception, which is consistent with the BAC staff observations. It should be noted that the vibration measurements at site 2 included a freight train passby on the existing UPRR tracks to the east of the project site.

Regulatory Setting: Criteria for Acceptable Noise and Vibration Exposure

Federal

There are no federal noise or vibration criteria which would be directly applicable to this project.

State of California

California Environmental Quality Act (CEQA)

The State of California has established regulatory criteria that are applicable to this assessment. Specifically, Appendix G of the State of California Environmental Quality Act (CEQA) Guidelines are used to assess the potential significance of impacts pursuant to local General Plan policies, Municipal Code standards, or the applicable standards of other agencies. According to Appendix G of the CEQA guidelines, the project would result in a significant noise or vibration impact if the following occur:

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 other 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.

It should be noted that audibility is not a test of significance according to CEQA. If this were the case, any project which added any audible amount of noise to the environment would be considered significant according to CEQA. Because every physical process creates noise, the use of audibility alone as significance criteria would be unworkable. CEQA requires a substantial increase in noise levels before noise impacts are identified, not simply an audible change.

Local

Sutter County General Plan

Chapter 11 (Noise) of the Sutter County General Plan contains the County's noise-related policies. The specific policies which are generally applicable to this project are reproduced below:

POLICES

N 1.1 **Exterior Environmental Noise Standards.** Require development of new noise-sensitive land uses to mitigate noise impacts where the projected exterior environmental noise levels exceed those shown in Table 4 (GP Table 11-1).

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 5 (GP Table 11-2).

N 1.3 **Interior Noise Standards.** Require new development to mitigate noise impacts to ensure acceptable interior noise levels appropriate to the land use type as shown in Table 4 (GP Table 11-1).

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 6 (GP Table 11-3).

N 1.5 **Frequent, High-Noise Events.** Require development of noise-sensitive uses subject to a discretionary permit and proposed in areas subject to frequent, high-noise events (such as aircraft over flights, or train and truck passbys) to adequately evaluate and mitigate the potential for noise-related impacts to ensure that noise-related annoyance, sleep disruption, speech interference, and other similar effects are minimized using metrics and methodologies appropriate to the effect(s) to be assessed and avoided.

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.

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 (FTA) criteria as shown in Table 7 (GP Table 11-4).

Table 4
Maximum Allowable Environmental Noise Standards

Land Use	Exterior Noise Level Standard for Outdoor Activity Areas[a]	Interior Noise Level Standard (dB)	
	DNL/CNEL (dB)	DNL/CNEL	L_{eq}[b]
Residential (Low Density, Duplex, Mobile Homes)	60[c]	45	NA
Residential (Multi-Family)	65[d]	45	NA
Transient Lodging (Motels/Hotels)	65[d]	45	NA
Schools, Libraries, Churches, Hospitals, Nursing Homes	70	45	NA
Theaters, Auditoriums	70	NA	35
Playgrounds, Neighborhood Parks	70	NA	NA
Golf Courses, Riding Stables, Water Recreation, Cemeteries	75	NA	NA
Office Buildings, Business Commercial and Professional	70	NA	45
Industrial, Manufacturing, Utilities, Agriculture	75	NA	45

a. Outdoor activity areas for residential developments are considered to be the back yard patios or decks of single-family residential units, and the patios or common areas where people generally congregate for multi-family development.

Outdoor activity areas for nonresidential developments are considered to be those common areas where people generally congregate, including outdoor seating areas.

Where the location of outdoor activity areas is unknown, the exterior noise standard shall be applied to the property line of the receiving land use.

b. As determined for a typical worst-case hour during periods of use.

c. Where it is not possible to reduce noise in outdoor activity areas to 60 dB, Ldn/CNEL or less using a practical application of the best-available noise reduction measures, an exterior level of up to 65 dB, Ldn/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

d. Where it is not possible to reduce noise in outdoor activity areas to 65 dB, Ldn/CNEL or less using a practical application of the best-available noise reduction measures, an exterior level of up to 70 dB, Ldn/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Source: Sutter County General Plan, Table 11-1

Table 5
Exterior Incremental Environmental Noise Impact Standards for Noise-Sensitive Uses (dB)

Residences and Buildings Where People Normally Sleep[a]		Institutional Uses with Primarily Daytime and Evening Uses[b]	
Existing DNL	Allowable Increase	Existing Peak Hour L_{eq}	Allowable Increase
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

-Noise levels measured at the property line of the noise-sensitive use.

a. This category includes homes, hospitals, and hotels where a nighttime sensitivity to noise is assumed to be of utmost importance.

b. This category includes schools, libraries, theaters, and churches where it is important to avoid interference with such activities as speech, meditation, and concentration on reading material.

Source: Sutter County General Plan, Table 11-2.

Table 6
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 L_{eq} (dB)	55	45
Maximum level, L_{max} (dB)	70	65
-Noise levels measured at the property line of the noise-sensitive use.		

Source: Sutter County General Plan, Table 11-3.

Table 7
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 ops.	65[d]	65[d]	65[d]
Category 2: Residences and buildings where people normally sleep	72	75	80
Category 3: Institutional land uses with primarily daytime uses	75	78	83

-Vibration levels measured at vibration-sensitive use.

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.
d. 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, Table 11-4.

Sutter County Municipal Code

The provisions of the Sutter County Municipal Code which would be most applicable to this project are reproduced below.

1500-21.5-050 – Exterior Noise Standards.

The noise standards shown in Table 8 (MC Table 1500-21.5-1), unless otherwise specified in this article, shall apply to all noise-sensitive exterior areas within Sutter County.

Table 8
Exterior Noise Standards

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

1500-21.5-070 – Exceptions to Noise Standards.

The following activities shall be exempted from the provisions of this article:

B. *Construction.* Noise sources associated with construction, repair, remodeling, demolition, paving or grading of any real property or public works project located within 1,000 feet of noise-sensitive uses (i.e., residential uses, daycares, schools, convalescent homes, and medical care facilities), provided such activities take place between:

1. 7:00 a.m. to 6:00 p.m. on weekdays
2. 8:00 a.m. to 5:00 p.m. on Saturdays

Construction is prohibited on Sundays and legal holidays unless permission has been applied for and granted by the County.

Impacts and Mitigation Measures

Thresholds of Significance

For the purposes of this assessment, a noise or vibration impact is considered significant if the project would result in:

- 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 other applicable standards of other agencies; or
- Generation of 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 or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

The following criteria established by the Sutter County General Plan and Sutter County Municipal Code were used to evaluate the significance of environmental noise and vibration resulting from the project:

- A significant noise impact would be identified if the project would expose persons to or generate noise levels that would exceed applicable noise criteria presented in the Sutter County General Plan or Sutter County Municipal Code.
- A significant impact would be identified if project-generated off-site traffic or on-site operations would substantially increase noise levels at existing sensitive receptors in the vicinity. A substantial increase would be identified relative to the exterior incremental environmental noise impact criteria contained in Policy N 1.2 of the Sutter County General Plan (Table 5).
- A significant impact would be identified if project construction activities or proposed on-site operations would expose sensitive receptors to excessive groundborne vibration levels. Specifically, an impact would be identified if groundborne vibration levels due to

these sources would exceed the FTA vibration impact criteria contained in Policy N 1.7 of the Sutter County General Plan (Table 7).

Noise Impacts Associated with Project-Generated Increases in Off-Site Traffic

With the development of the project, traffic volumes on the local roadway network will increase. Those increases in daily traffic volumes will result in a corresponding increase in traffic noise levels at existing uses located along those roadways. Impacts 1 and 2 evaluate increases in off-site traffic noise levels which would result from the project.

Impact 1: Increases in Existing Traffic Noise Levels due to the Project

The project site is accessed via Eager Road on the northern end of the project site. As a result, the greatest impact from project-generated off-site traffic is expected to be along Eager Road, from SR 99 to the project site. The property line of the nearest existing noise-sensitive use to Eager Road is located approximately 50 feet from the centerline of the roadway (residential).

To assess noise impacts due to project-related increases in existing traffic on Eager Road, BAC utilized the trip generation information obtained from the project traffic impact analysis (prepared by KDAnderson & Associates, Inc.) with the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA-RD-77-108). The FHWA Model was used in conjunction with the CALVENO reference noise emission curves, and accounts for vehicle volume and speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the project vicinity, and is generally considered to be accurate within 1.5 dB if the input variables are properly accounted for. The FHWA Model was developed to predict hourly L_{eq} values for free-flowing traffic conditions. To calculate a day-night average (DNL), average daily traffic (ADT) volume data is manipulated based on the assumed day/night distribution of traffic.

According to the project traffic impact analysis, the project is estimated to generate a total of approximately 55 vehicle trips per day (37 automobiles, 18 heavy trucks). Based on a worst-case 55 vehicle trips per day, project-generated traffic noise level exposure is predicted to be approximately 54 dB DNL (54.4 dB DNL) at a distance of 50 feet from the centerline of Eager Road. The FHWA Model inputs and predicted project-generated traffic noise levels along Eager Road are provided in Appendix F-1 of this report.

The project traffic impact analysis indicates an existing average daily traffic volume (ADT) of 4,650 for Eager Road, from SR 99 to Live Oak Boulevard. Based on an ADT of 4,650, existing day-night average noise level exposure computes to approximately 63 dB DNL (62.9 dB DNL) at a distance of 50 feet from the centerline of Eager Road. The FHWA Model inputs and predicted existing traffic noise levels along Eager Road are provided in Appendix F-2 of this report.

Pursuant to the criteria identified in General Plan Policy N 1.2 (presented in Table 5 of this report), a 1-2 dB increase is the threshold of significance where existing ambient noise levels are 60-65 dB DNL at residential uses. Given a predicted (worst-case) project-generated off-site traffic noise level of 54.4 dB DNL, and a computed existing traffic noise level of 62.9 dB DNL, the project-related increase in traffic noise levels along Eager Road is calculated to be 0.6 dB DNL at a distance of 50 feet.

Because project-related traffic is not predicted to result in increases in ambient noise levels that would exceed Sutter County General Plan Policy N 1.2 standards of significance criteria at the nearest existing noise-sensitive uses within the project vicinity, this impact is identified as being ***less than significant***.

Impact 2: Increases in Cumulative Traffic Noise Levels due to the Project

As mentioned previously, the greatest impact from project-generated off-site traffic is expected to be along Eager Road, from SR 99 to the project site. The property line of the nearest existing noise-sensitive use to Eager Road is located approximately 50 feet from the centerline of the roadway (residential).

To assess noise impacts due to project-related increases in cumulative (future) traffic on Eager Road, BAC utilized the trip generation information obtained from the project traffic impact analysis (prepared by KDAnderson & Associates, Inc.) with the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA-RD-77-108). The FHWA Model was used in conjunction with the CALVENO reference noise emission curves, and accounts for vehicle volume and speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the project vicinity, and is generally considered to be accurate within 1.5 dB if the input variables are properly accounted for. The FHWA Model was developed to predict hourly L_{eq} values for free-flowing traffic conditions. To calculate a day-night average (DNL), average daily traffic (ADT) volume data is manipulated based on the assumed day/night distribution of traffic.

The project impact analysis indicates a future (cumulative no project) average daily traffic volume (ADT) of 5,675 for Eager Road, from SR 99 to Live Oak Boulevard. Based on an ADT of 5,675, future day-night average traffic noise level exposure computes to 63.7 dB DNL at a distance of 50 feet from the centerline of Eager Road. The FHWA Model inputs and predicted future (cumulative no project) traffic noise levels along Eager Road are provided in Appendix F-3 of this report. As indicated in **Impact 1**, project-generated traffic noise level exposure is predicted to be 54.4 dB DNL at a distance of 50 feet from the centerline of Eager Road (Appendix F-1).

Pursuant to the criteria identified in General Plan Policy N 1.2 (presented in Table 5 of this report), a 1-2 dB increase is the threshold of significance where existing (no project) ambient noise levels are 60-65 dB DNL at residential uses. Given a predicted project-generated off-site traffic noise level of 54.4 dB DNL, and a computed future (cumulative no project) traffic noise level of 63.7 dB DNL, the project-related increase in traffic noise levels along Eager Road is calculated to be 0.5 dB DNL at a distance of 50 feet.

Because project-related traffic is not predicted to result in increases in ambient noise levels that would exceed Sutter County General Plan Policy N 1.2 standards of significance criteria at the nearest existing noise-sensitive uses within the project vicinity, this impact is identified as being ***less than significant***.

Off-Site Noise Impacts Associated with Proposed On-Site Operations

The project proposes the development of a heavy truck and trailer repair shop and parking areas for heavy trucks and passenger vehicles. The primary noise sources associated with project on-site operations have been identified as on-site truck circulation, repair shop equipment operations, passenger vehicle parking movements, truck hitching, idling, and departures, and truck refrigeration units.

The proposed hours of operation for the truck and trailer repair shop component of the project are 8:00 a.m. to 5:00 p.m. Monday-Friday. The truck and passenger vehicle parking component of the project proposes 24-hour operations seven days a week. Based on this information, the County's non-transportation daytime and nighttime noise level standards were applied to project on-site operations (Table 6 of this report). The County's noise level limits are to be assessed at the property lines of receiving uses.

The nearest identified existing noise-sensitive uses which could potentially be affected by project on-site operations consists of a residence constructed on an agricultural zoned parcel to the west (APN: 10-260-045) and a church use located on an agricultural/commercial zoned parcel to the north (APN: 10-220-064). It should be noted that the property line of the parcel containing a church use to the north (APN 10-220-064) does not contain any noise-sensitivity within close proximity to that boundary. Based upon a review of aerial imagery, the noise-sensitivity on the church property has been identified as buildings and a large playing field (a noise-generating source). The closest church building to the project property maintains a setback of approximately 300 feet. The center of the playing field on the church property is located in excess of 325 feet from the project site. Because there is no identified noise-sensitivity within close proximity of the property line of the church use to the north, and because it is expected that project-generated noise sources would be within compliance of the County's noise level limits at the noise-sensitive locations identified on that property located farther away, analyses of project-generated noise exposure at the church use to the north was not included in this assessment. Rather, the following analyses of project-generated noise exposure focuses on compliance with applicable County noise level limits at the property line of the adjacent existing residential use to the west (APN: 10-260-045). Satisfaction of the County's noise level standards at the closest noise-sensitive use would ensure compliance of the County's noise level limits at more distant noise-sensitive uses.

Finally, in terms of determining the noise level increases due to on-site operations at existing noise-sensitive uses, an impact would occur if those sources would increase ambient noise levels in excess of the exterior incremental noise impact standards established in General Plan Policy N 1.2 (Table 5 of this report). Based on the results from the BAC ambient noise survey (Table 1), measured day-night average noise levels (DNL's) at site 1, believed to be representative of the existing ambient noise level environment at the existing residential use to the west (APN: 10-260-045), ranged from 62 to 66 dB DNL (calculated mean of 63 dB DNL). According to the incremental noise impact standards shown in Table 5, a 1-2 dB increase is the threshold of significance where existing (no project) ambient noise levels are 60-65 dB DNL at residential uses. For the analysis of noise level increases due to on-site operations at existing noise-sensitive uses, this report conservatively uses a 1 dB threshold of significance.

Impact 3: Passenger Vehicle Parking Noise at Nearest Noise-Sensitive Use

The project proposes two parking areas for passenger vehicles on the property – one located near the southern project property line, and one near the entrance at the northern portion of the site. The locations of the parking areas are shown in Figure 2. According to the project applicant, the passenger vehicle parking component of the project will be available 24-hours a day.

As a means of determining potential noise exposure due to project parking lot activities, Bollard Acoustical Consultants, Inc. (BAC) utilized specific parking lot noise level measurements conducted by BAC. Specifically, a series of individual noise measurements were conducted of multiple vehicle types arriving and departing a parking area, including engines starting and stopping, car doors opening and closing, and persons conversing as they entered and exited the vehicles. The results of those measurements revealed that individual parking lot movements generated mean noise levels of approximately 70 dB SEL at a reference distance of 50 feet. The maximum noise level associated with parking lot activity typically did not exceed 65 dB L_{max} at the same reference distance.

To compute hourly average (L_{eq}) noise levels from parking lot activities, the number of hourly operations in any given area and distance to the effective noise center of those activities is required. According to the provided site plan, 12 stalls are proposed at the passenger vehicle parking area located on the southern end of the property, and 13 spaces will be provided in the vehicle parking area near the entrance. It was conservatively assumed for the purpose of this analysis that all parking stalls within the nearest parking area to the identified noise-sensitive use could fill or empty during a given peak hour (worst-case). The hourly average noise level generated by parking lot movements is computed using the following formula:

$$Peak\ Hour\ L_{eq} = 70+10*log\ (N) - 35.6$$

Where 70 is the mean Sound Exposure Level (SEL) for an automobile parking lot arrival or departure, N is the number of parking lot operations in a given hour, and 35.6 is 10 times the logarithm of the number of seconds in an hour. Using the information provided above, and assuming standard spherical spreading loss (-6 dB per doubling of distance), worst-case project passenger vehicle parking area noise exposure at the property line of the nearest existing residential use was calculated and the results of those calculations relative to the applicable Sutter County daytime and nighttime noise level standards are summarized in Table 9.

Table 9
Predicted Worst-Case Parking Noise Levels at Nearest Residential Use

		Predicted Noise Levels (dB)[2]		County Noise Standards (dB)			
				Daytime		Nighttime	
APN[1]	Noise-Sensitive Receiver	L_{eq}	L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}
10-260-045	Existing residential west	36	60	**55**	**70**	**45**	**65**

[1] Location of residential use is shown in Figures 1 & 2.
[2] Predicted noise levels at receiver property line.

Source: BAC 2022.

As indicated in Table 9, worst-case project parking area noise exposure is predicted to satisfy the County's daytime and nighttime noise level standards at the property line of APN: 10-260-045.

Table 1 of this report summarizes the results from the BAC long-term ambient noise survey. Using the calculated mean of average measured hourly daytime and nighttime noise levels presented in Table 1, ambient plus project parking area noise level increases were calculated at APN: 10-260-045 and the results of those calculations are presented in Tables 10 and 11.

Table 10
Ambient Plus Project Parking Noise Increases at Nearest Existing Residential Use – Daytime

	Predicted Noise Level (dB)[1]		Ambient Plus Project (dB)[2]		Increase in Ambient (dB)[3]	
APN	**L_{eq}**	**L_{max}**	**L_{eq}**	**L_{max}**	**L_{eq}**	**L_{max}**
10-260-045	36	60	60.0	79.1	<0.1	0.1

[1] Predicted noise levels from Table 9.
[2] Sum of predicted and measured ambient daytime noise levels.
[3] Calculated increase in ambient daytime noise levels.

Source: BAC 2022.

Table 11
Ambient Plus Project Parking Noise Increases at Nearest Existing Residential Use – Nighttime

	Predicted Noise Level (dB)[1]		Ambient Plus Project (dB)[2]		Increase in Ambient (dB)[3]	
APN	**L_{eq}**	**L_{max}**	**L_{eq}**	**L_{max}**	**L_{eq}**	**L_{max}**
10-260-045	36	60	57.0	76.1	<0.1	0.1

[1] Predicted noise levels from Table 9.
[2] Sum of predicted and measured ambient nighttime noise levels.
[3] Calculated increase in ambient nighttime noise levels.

Source: BAC 2022.

As shown in Tables 10 and 11, the increases in ambient noise levels from worst-case project passenger vehicle parking activities are calculated to below the applied General Plan increase significance threshold of 1 dB at APN: 10-260-045.

Because noise exposure from worst-case project passenger vehicle parking activities is predicted to satisfy applicable Sutter County noise level standards at the nearest existing noise-sensitive use, and because noise exposure from those activities is not calculated to significantly increase ambient noise levels at that use, this impact is identified as being ***less than significant***.

Impact 4: Truck Hitching, Idling and Departure Noise at Nearest Noise-Sensitive Use

The project proposes three parking areas for heavy trucks on the property – one located at the southwest end of the project property, one centrally located along the southern project property line, and one proposed on the west side of the repair shop. The locations of the truck parking areas are shown in Figure 2. According to the project applicant, the truck parking component of the project will be available 24-hours a day.

To quantify noise levels associated with project truck hitching, idling, and departures, BAC utilized reference data for truck noise collected at a comparable facility. According to the project traffic impact analysis (prepared by KDAnderson & Associates, Inc.), the project is estimated to generate a total of eighteen (18) truck trips per day, with two (2) AM and PM peak hour trips. To compute hourly average (L_{eq}) noise levels generated by truck hitching, idling and departure (i.e., truck parking activities), it was assumed that two (2) truck parking stalls within the nearest truck parking area could fill or empty during a given peak hour. The hourly average noise level generated by truck parking activities are computed using the following formula:

$$Hourly\ L_{eq} = SEL+10*LOG\ (N) - 35.6$$

For this analysis, the *SEL* (Sound Exposure Level) produced by a truck parking event is 83 dB at 50 feet, *N* is the number of truck parking operations in a given hour (2), and *35.6* is 10 times the logarithm of the number of seconds in an hour. Using the information provided above, and assuming standard spherical spreading loss (-6 dB per doubling of distance), project truck hitching, idling and departure noise exposure at the property line of the nearest noise-sensitive use was calculated and the results of those calculations relative to the applicable Sutter County daytime and nighttime noise level standards are summarized in Table 13.

Table 13
Predicted Truck Hitching, Idling and Departure Noise Levels at Nearest Residential Use

		Predicted Noise Levels (dB)[2]		County Noise Standards (dB)			
				Daytime		Nighttime	
APN[1]	Noise-Sensitive Receiver	L_{eq}	L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}
10-260-045	Existing residential west	46	68	**55**	**70**	**45**	**65**

[1] Location of residential use is shown in Figures 1 & 2.
[2] Predicted noise levels at receiver property line.

Source: BAC 2022.

The Table 13 data indicate that project truck hitching, idling and departure noise exposure is predicted to exceed the County's nighttime noise level standards at APN: 10-260-045.

Table 1 of this report summarizes the results from the BAC long-term ambient noise survey. Using the calculated mean of average measured hourly daytime and nighttime noise levels presented in Table 1, ambient plus project truck hitching, idling and departure noise level increases were calculated at APN: 10-260-045 and the results of those calculations are presented in Tables 14 and 15.

Table 14
Ambient Plus Project Truck Hitching, Idling and Departure Noise Increases at Nearest Existing Residential Use – Daytime

	Predicted Noise Level (dB)[1]		Ambient Plus Project (dB)[2]		Increase in Ambient (dB)[3]	
APN	**L_{eq}**	**L_{max}**	**L_{eq}**	**L_{max}**	**L_{eq}**	**L_{max}**
10-260-045	46	68	60.2	79.3	0.2	0.3

[1] Predicted noise levels from Table 13.
[2] Sum of predicted and measured ambient daytime noise levels.
[3] Calculated increase in ambient daytime noise levels.

Source: BAC 2022.

Table 15
Ambient Plus Project Truck Hitching, Idling and Departure Noise Increases at Nearest Existing Residential Use – Nighttime

	Predicted Noise Level (dB)[1]		Ambient Plus Project (dB)[2]		Increase in Ambient (dB)[3]	
APN	**L_{eq}**	**L_{max}**	**L_{eq}**	**L_{max}**	**L_{eq}**	**L_{max}**
10-260-045	46	68	57.3	76.6	0.3	0.6

[1] Predicted noise levels from Table 13.
[2] Sum of predicted and measured ambient nighttime noise levels.
[3] Calculated increase in ambient nighttime noise levels.

Source: BAC 2022.

As presented in Tables 14 and 15, the increases in ambient noise levels from project truck hitching, idling and departure activities are calculated below the applied General Plan increase significance threshold of 1 dB at APN: 10-260-045. However, because project truck hitching, idling and departure noise exposure is predicted to exceed County's nighttime noise level standards at APN: 10-260-045 (Table 13), this impact is identified as **potentially significant.**

Mitigation Impact 4:

To satisfy the County's nighttime hourly average (L_{eq}) and maximum (L_{max}) noise level standards at APN: 10-260-045, the following specific truck parking activity noise mitigation measure would be required of the project:

MM 4: The construction of a 9-foot-tall solid noise barrier along the western project property line. The location of the solid noise barrier is illustrated in Figure 4. The noise barrier could take the form of a masonry wall, earthen berm, or combination of the two. Other materials may be acceptable but should be reviewed by an acoustical consultant prior to construction.

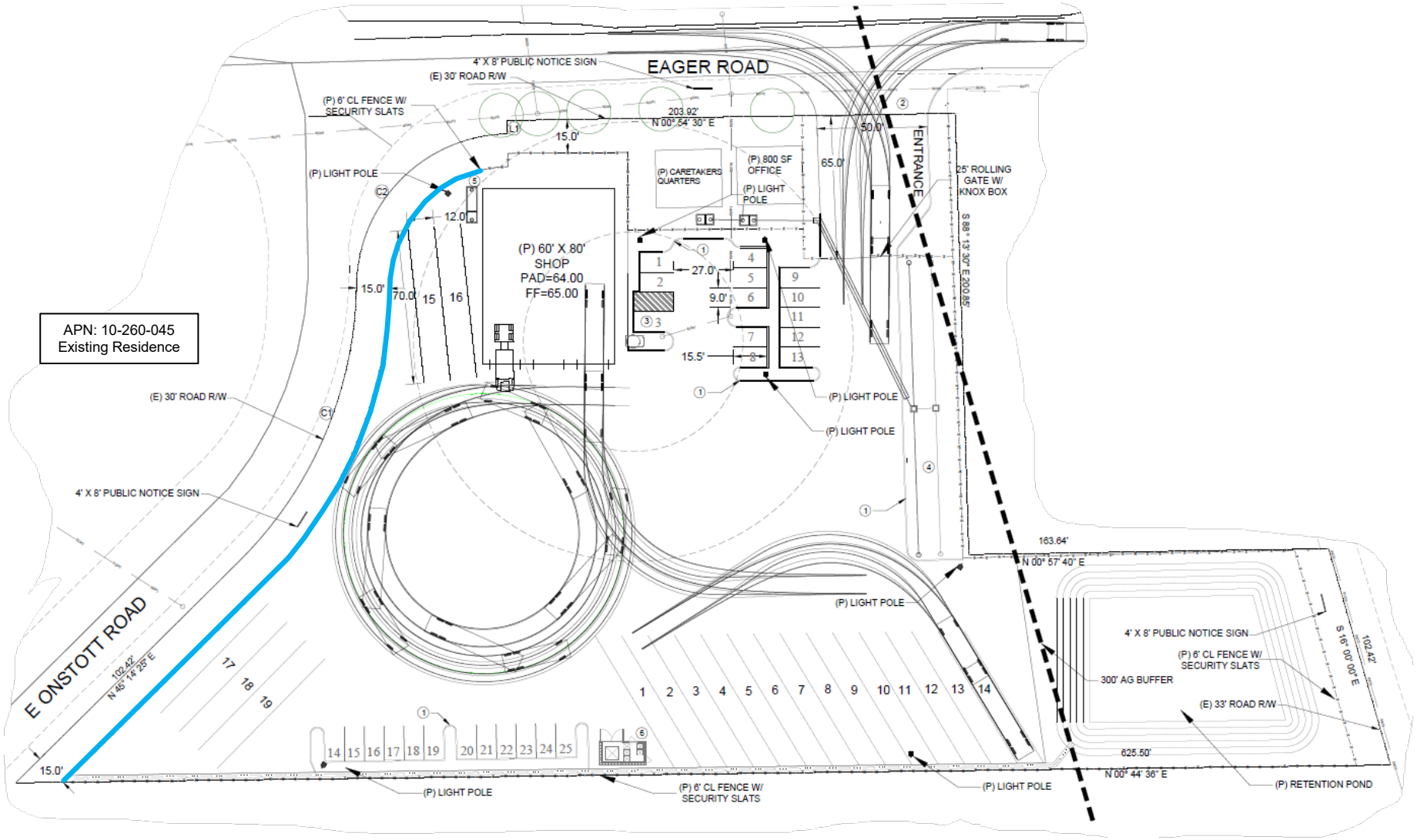
Table 16 shows the calculated attenuated truck parking activity noise levels at APN: 10-260-045 with implementation of the mitigation measure outlined above.

Table 16
Predicted Mitigated Truck Parking Noise Levels at Nearest Residential Use

			County Noise Standards			
	Predicted Noise Levels (dB)[1]		Daytime		Nighttime	
APN	L_{eq}	L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}
10-260-045	40	62	**55**	**70**	**45**	**65**

[1] Predicted noise levels after implementation of Mitigation Measure 4.

Significance of Impact 4 after Mitigation: ***Less than Significant***



Legend

9' Solid Noise Barrier (MM 4)

N

Scale (Feet)

0 30 60

Moon Truck & Trailer Repair
Sutter County, California

Mitigation Measure 4

Figure 4

BOLLARD Acoustical Consultants

Impact 5: On-Site Truck Circulation Noise at Nearest Noise-Sensitive Use

The project site plan indicates that the facility will be accessed from one entrance/exit off Eager Road on the northern end of the parcel. Once on the property, the trucks will have access to the three truck parking areas and/or the repair shop building. The project also proposes a dedicated truck turnaround area located south of the repair shop building. The locations of the property access point, parking, and turnaround areas are shown in Figure 2. According to the project applicant, the truck parking component of the project will be available 24-hours a day.

Heavy truck arrivals, and departures, and on-site truck circulation, will occur and low speeds. To predict noise levels generated by on-site truck circulation, BAC utilized single-event passby noise test results for slow-moving heavy trucks conducted at the West El Camino truck stop in Sacramento, California. The passby measurements were conducted at a reference distance of 50 feet at a location suitable for isolation of individual passby events. The results of the heavy truck measurements indicated that maximum noise levels ranged from 69 to 77 dB L_{max}, with a mean of 74 dB L_{max}. Truck passby levels measured in terms of Sound Exposure Levels (SEL) ranged from 77 to 85 dB, with a mean of 83 dB SEL.

Because the County's noise standards are provided in terms of both hourly average noise levels and individual maximum noise levels, it is necessary to identify the number of truck movements occurring during a typical busy hour of operations to assess compliance with the L_{eq}-based standards. As mentioned previously, the project is estimated to generate a total of eighteen (18) truck trips per day, with two (2) AM and PM peak hour trips. Based on the provided peak hour operations information, noise exposure from those activities was calculated with the following equation:

$$Hourly\ L_{eq} = SEL+10*LOG\ (N) - 35.6 - A$$

The *SEL* is the sound exposure level produced by a truck passby event (83), *N* is the number of operations in a given hour (2), *35.6* is ten times the log of the number of seconds in an hour, and *A* is the attenuation due to distance (standard spherical spreading loss, -6 dB per doubling of distance). Based on the reference noise level data and operations assumptions presented above, worst-case project on-site truck circulation noise exposure at the property line of the nearest noise-sensitive use was calculated and the results of those calculations relative to the applicable Sutter County daytime and nighttime noise level standards are summarized in Table 17.

Table 17
Predicted On-Site Truck Circulation Noise Levels at Nearest Residential Use

		Predicted Noise Levels (dB)[2]		County Noise Standards (dB)			
				Daytime		Nighttime	
APN[1]	Noise-Sensitive Receiver	L_{eq}	L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}
10-260-045	Existing residential west	47	70	**55**	**70**	**45**	**65**

[1] Location of residential use is shown in Figures 1 & 2.
[2] Predicted noise levels at receiver property line.

Source: BAC 2022.

As shown in Table 17, project on-site truck circulation noise levels are predicted to exceed the County's nighttime noise level standards at APN: 10-260-045.

Table 1 of this report summarizes the results from the BAC long-term ambient noise survey. Using the calculated mean of average measured hourly daytime and nighttime noise levels presented in Table 1, ambient plus project on-site truck circulation noise level increases were calculated at APN: 10-260-045 and the results of those calculations are presented in Tables 18 and 19.

Table 18
Ambient Plus Project On-Site Truck Circulation Noise Increases at Nearest Existing Residential Use – Daytime

	Predicted Noise Level (dB)[1]		Ambient Plus Project (dB)[2]		Increase in Ambient (dB)[3]	
APN	**L_{eq}**	**L_{max}**	**L_{eq}**	**L_{max}**	**L_{eq}**	**L_{max}**
10-260-045	47	70	60.2	79.5	0.2	0.5

[1] Predicted noise levels from Table 17.
[2] Sum of predicted and measured ambient daytime noise levels.
[3] Calculated increase in ambient daytime noise levels.

Source: BAC 2022.

Table 19
Ambient Plus Project On-Site Truck Circulation Noise Increases at Nearest Existing Residential Use – Nighttime

	Predicted Noise Level (dB)[1]		Ambient Plus Project (dB)[2]		Increase in Ambient (dB)[3]	
APN	**L_{eq}**	**L_{max}**	**L_{eq}**	**L_{max}**	**L_{eq}**	**L_{max}**
10-260-045	47	70	57.5	77.0	0.5	1.0

[1] Predicted noise levels from Table 17.
[2] Sum of predicted and measured ambient nighttime noise levels.
[3] Calculated increase in ambient nighttime noise levels.

Source: BAC 2022.

As shown in Table 19, the increase in nighttime ambient maximum (L_{max}) noise levels from project on-site truck circulation is calculated to meet the applied General Plan increase significance threshold of 1 dB at the closest existing noise-sensitive use.

Because project on-site truck circulation noise exposure is predicted to exceed the County's nighttime noise level standards at APN: 10-260-045 (Table 17), and because those activities during nighttime hours are calculated to meet the County's increase significance threshold criterion of 1 dB (Table 19), this impact is identified as **potentially significant.**

Mitigation Impact 5:

To satisfy the County's nighttime hourly average (L_{eq}) and maximum (L_{max}) noise level standards at APN: 10-260-045, and to reduce those noise levels to below the applied County ambient noise level increase significance threshold at that property, the following specific on-site truck circulation noise mitigation measure would be required of the project:

MM 5: The implementation of **Mitigation Measure 4 (MM 4)**, as outlined in this assessment. Specifically, the construction of a 9-foot-tall solid noise barrier at the location illustrated in Figure 4. The noise barrier could take the form of a masonry wall, earthen berm, or combination of the two. Other materials may be acceptable but should be reviewed by an acoustical consultant prior to construction.

Table 20 shows the calculated attenuated on-site truck circulation noise levels at APN: 10-260-045 with implementation of the mitigation measure outlined above. The calculated attenuated increases in ambient noise levels at APN: 10-260-045 are presented in Tables 21 and 22.

Table 20
Predicted Mitigated Truck Circulation Noise Levels at Residential Use

			County Noise Standards			
	Predicted Noise Levels (dB)[1]		Daytime		Nighttime	
APN	L_{eq}	L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}
10-260-045	41	64	**55**	**70**	**45**	**65**

[1] Predicted noise levels after implementation of Mitigation Measure 5.

Table 21
Predicted Mitigated Ambient Plus Project On-Site Truck Circulation Noise Increases at Nearest Existing Residential Use – Daytime

	Predicted Noise Levels (dB)[1]		Ambient Plus Project (dB)[2]		Increase in Ambient (dB)[3]	
APN	L_{eq}	L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}
10-260-045	41	64	60.1	79.1	0.1	0.1

[1] Predicted noise levels after implementation of Mitigation Measure 5.
[2] Sum of predicted and measured ambient daytime noise levels.
[3] Calculated increase in ambient daytime noise levels.

Table 22
Predicted Mitigated Ambient Plus Project On-Site Truck Circulation Noise Increases at Nearest Existing Residential Use – Nighttime

	Predicted Noise Levels (dB)[1]		Ambient Plus Project (dB)[2]		Increase in Ambient (dB)[3]	
APN	L_{eq}	L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}
10-260-045	41	64	57.1	76.3	0.1	0.3

[1] Predicted noise levels after implementation of Mitigation Measure 5.
[2] Sum of predicted and measured ambient nighttime noise levels.
[3] Calculated increase in ambient nighttime noise levels.

Significance of Impact 5 after Mitigation: ***Less than Significant***

Impact 6: Truck Refrigeration Unit Noise at Nearest Noise-Sensitive Use

It is reasonably expected that a portion of trucks that will utilize the proposed parking facility will be equipped with refrigeration units – which commonly operate constantly to maintain the temperature within the trailers. According to the project applicant, the truck parking component of the project will be available 24-hours a day.

To quantify noise levels associated with these units, BAC utilized short-term noise level measurement data of refrigeration units obtained for a trucking facility project in Fresno County, California (September 8, 2016). Specifically, the refrigeration unit noise testing consisted of conducting separate noise measurements of two refrigeration unit operation settings: cooling mode and maintenance mode. The noise measurement results are summarized in Table 23.

Table 23
Measured Refrigeration Unit Reference Noise Levels

Description	Distance (ft)	Noise Level, L_{eq} (dB)
Refrigeration unit cooling	15	80
Refrigeration unit maintaining temperature	15	70

Source: BAC 2016.

As indicated in Table 23, the measured refrigeration unit noise levels varied depending on the operation setting. Based on the experience of BAC in previously completed noise studies for truck stop facilities in recent years, refrigeration units typically do not operate under the cooling mode while parked at facilities because the trailers arriving at those sites would already be at the appropriate temperature. Rather, the refrigeration units would only operate to maintain temperature while the trucks are on site. The truck refrigeration units are attached to the front of a trailer (facing forward), located above the truck cab.

To quantify project truck refrigeration unit noise level exposure, BAC utilized the reference noise level data provided above. Because the refrigeration units operate continuously throughout the hour, the County's hourly average (L_{eq}) noise standards would be most applicable to this noise source. Assuming standard spherical spreading loss (-6 dB per doubling of distance), project truck refrigeration unit noise exposure at the property line of the nearest noise-sensitive use was calculated and the results of those calculations relative to the applicable Sutter County daytime and nighttime noise level standards are summarized in Table 24.

The results presented in Table 24 take into consideration the orientation of the proposed truck parking spaces and resulting directionality of the forward-facing noise-producing truck refrigeration units. Specifically, because refrigeration units in the westernmost proposed truck parking spaces (stalls 15-19) would be 90 degrees off-axis relative to the property line of APN: 10-260-045 to the west, an offset of 3 dB was applied at that location.

Table 24
Predicted Truck Refrigeration Unit Noise Levels at Nearest Residential Use

APN[1]	Noise-Sensitive Receiver	Predicted Noise Level, L_{eq} (dB)[2]	County Noise Standards, L_{eq} (dB)	
			Daytime	Nighttime
10-260-045	Existing residential west	51	**55**	**45**

[1] Location of residential use is shown in Figures 1 & 2.
[2] Predicted noise level at receiver property line based on equipment operating in maintenance mode and include directionality off-sets as discussed in this section.

Source: BAC 2022.

For the purposes of this analysis, it was reasonably assumed that no more than 10 truck refrigeration units would be in simultaneous operation on the project site at any given time. However, the additional refrigeration units would be substantially screened by intervening trailers and would not significantly increase the predicted noise levels presented in Table 24. Thus, the results presented in Table 24 represent worst-case truck refrigeration unit noise levels at the adjacent existing and future residential uses (noise from the nearest un-screened units). Table 24 data indicate that project truck refrigeration unit noise levels are predicted to exceed the County's nighttime hourly average (L_{eq}) noise level standard at the property line of APN: 260-045.

Table 1 of this report summarizes the results from the BAC long-term ambient noise survey. Using the calculated mean of average measured hourly daytime and nighttime noise levels presented in Table 1, ambient plus project truck refrigeration unit noise level increases were calculated at APN: 10-260-045 and the results of those calculations are presented in Tables 25 and 26.

Table 25
Ambient Plus Project Truck Refrigeration Unit Noise Increase
at Nearest Existing Residential Use – Daytime

APN	Predicted Noise Level, L_{eq} (dB)[1]	Ambient Plus Project, L_{eq} (dB)[2]	Increase in Ambient, L_{eq} (dB)[3]
10-260-045	51	60.5	0.5

[1] Predicted noise levels from Table 24.
[2] Sum of predicted and measured ambient daytime noise levels.
[3] Calculated increase in ambient daytime noise levels.

Source: BAC 2022.

Table 26
Ambient Plus Project Truck Refrigeration Unit Noise Increase
at Nearest Existing Residential Use – Nighttime

APN	Predicted Noise Level, L_{eq} (dB)[1]	Ambient Plus Project, L_{eq} (dB)[2]	Increase in Ambient, L_{eq} (dB)[3]
10-260-045	51	57.9	0.9

[1] Predicted noise levels from Table 24.
[2] Sum of predicted and measured ambient nighttime noise levels.
[3] Calculated increase in ambient nighttime noise levels.

Source: BAC 2022.

As presented in Tables 25 and 26, the increases in daytime and nighttime ambient noise levels from project truck refrigeration units are calculated to be below the applied General Plan increase significance threshold of 1 dB at APN: 10-260-045. However, because project truck refrigeration unit noise exposure is predicted to exceed the County's nighttime hourly average (L_{eq}) noise level standard at APN: 10-260-045 (Table 24), this impact is identified as **potentially significant.**

Mitigation Impact 6:

To satisfy the County's nighttime hourly average (L_{eq}) noise level standard at APN: 10-260-045, the following specific truck refrigeration unit noise mitigation measure would be required of the project:

MM 6: The implementation of **Mitigation Measure 4 (MM 4)**, as outlined in this assessment. Specifically, the construction of a 9-foot-tall solid noise barrier at the location illustrated in Figure 4. The noise barrier could take the form of a masonry wall, earthen berm, or combination of the two. Other materials may be acceptable but should be reviewed by an acoustical consultant prior to construction.

Table 27 shows the calculated attenuated truck refrigeration unit noise level at APN: 10-260-045 with implementation of the mitigation measure outlined above.

Table 27
Predicted Mitigated Truck Refrigeration Unit Noise Level at Residential Use

APN	Predicted Noise Level, L_{eq} (dB)[1]	County Nighttime Noise Standard, L_{eq} (dB)
10-260-045	45	**45**
[1] Predicted noise level includes implementation of Mitigation Measure 6.		

Significance of Impact 6 after Mitigation: ***Less than Significant***

Impact 7: Truck & Trailer Repair Shop Equipment Noise at Nearest Noise-Sensitive Use

The truck and trailer repair shop will be located on the northern end of the project parcel, as identified in Figure 2. According to the proposed site design, the trucks and trailers will enter and exit the shop via bay doors on the south side of building. According to the project applicant, the hours of operation for the truck and trailer repair component of the project will be 8:00 a.m. to 5:00 p.m., Monday-Friday (i.e., daytime hours only).

To quantify noise levels associated with the proposed repair shop, BAC utilized file data collected for a similarly sized automobile repair facility (Red Rocket Automotive Repair Facility in Sacramento, California – 2013). Specific noise sources quantified in the noise level data included an air compressor, air hammer, impact wrench, and an oil pump. The results of the reference noise level measurements are contained below in Table 28.

Table 28
Measured Auto Repair Facility Reference Noise Levels

Equipment	Measured Distance (ft)	L_{eq} While in Use (dB)	Minutes Per Hour Used (est.)[1]	Computed Hourly L_{eq} (dB)	Measured L_{max} (dB)
Compressor	30	73	15	67	75
Air hammer	30	92	5	81	95
Impact wrench	30	75	10	67	82
Oil pump	15	70	10	62	71

[1] The number of minutes in any given hour each noise source would be in operation was estimated from previous BAC observations at automobile repair facilities, as noise-producing equipment is not in constant use.

Source: BAC 2013.

Using the reference noise level data provided above in Table 28, and assuming standard spherical spreading loss (-6 dB per doubling of distance), project repair shop equipment noise exposure at the property line of the nearest noise-sensitive use was calculated and the results of those calculations relative to the applicable Sutter County daytime noise level standards are summarized in Table 29.

Table 29
Predicted Repair Shop Equipment Noise Levels at Nearest Residential Use

		Predicted Equipment Noise Levels (dB)[2]							
		Compressor		Air Hammer		Impact Wrench		Oil Pump	
APN[1]	Receiver	L_{eq}	L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}
10-260-045	Existing residential west	54	62	68	62	54	69	43	52

[1] Location of residential use is shown in Figures 1 & 2.
[2] Predicted equipment noise levels at receiver property line.

Source: BAC 2022.

The County establishes daytime hourly average and maximum noise level standards of 55 dB L_{eq} and 70 dB L_{max} for noise-sensitive uses, respectively. Based on the data presented in Table 29, the combined hourly average noise level from repair shop equipment is calculated to be 68 dB L_{eq} at APN: 10-260-045. In addition, Table 29 data indicate that the highest maximum noise level from repair shop equipment is predicted to be 69 dB L_{max}. Thus, noise levels associated with repair shop equipment are predicted to exceed the County's daytime hourly average (L_{eq}) noise level standard at the property line of APN: 10-260-045.

Table 1 of this report summarizes the results from the BAC long-term ambient noise survey. Using the calculated mean of average measured hourly daytime noise levels presented in Table 1, ambient plus project repair shop equipment noise level increases during daytime hours were calculated at APN: 10-260-045 and the results of those calculations are presented in Table 30.

Table 30
Ambient Plus Project Repair Shop Equipment Daytime Noise Increases
at Nearest Existing Residential Use

	Predicted Noise Level (dB)[1]		Ambient Plus Project (dB)[2]		Increase in Ambient (dB)[3]	
APN	**L_{eq}**	**L_{max}**	**L_{eq}**	**L_{max}**	**L_{eq}**	**L_{max}**
10-260-045	68	69	68.6	79.4	8.6	0.4

[1] Calculated combined Leq and highest predicted Lmax noise levels based on Table 29 data.
[2] Sum of predicted and measured ambient daytime noise levels.
[3] Calculated increase in ambient daytime noise levels.

Source: BAC 2022.

The Table 30 data indicate that the increase in ambient daytime hourly average (L_{eq}) noise levels from project repair shop equipment are calculated to exceed the applied General Plan increase significance threshold of 1 dB at APN: 10-260-045 (8.6 dB).

Because project repair shop equipment noise exposure is predicted to exceed the County's daytime hourly average noise level standard at APN: 10-260-045 (Table 29), and because equipment operations are calculated to exceed the County's increase significance threshold criterion of 1 dB (Table 30), this impact is identified as **potentially significant.**

Mitigation Impact 7:

To satisfy the County's daytime hourly average (L_{eq}) noise level standard at APN: 10-260-045, and to reduce project noise levels to below the applied County ambient noise level increase significance threshold at that property, the following two specific truck and trailer repair shop noise mitigation measures would be required of the project:

MM 7A: The implementation of **Mitigation Measure 4 (MM 4)**, as outlined in this assessment. Specifically, the construction of a 9-foot-tall solid noise barrier at the location illustrated in Figure 4. The noise barrier could take the form of a masonry wall, earthen berm, or combination of the two. Other materials may be acceptable but should be reviewed by an acoustical consultant prior to construction.

AND

MM 7B: All equipment operations associated with the proposed truck and trailer repair shop must occur within the shop building and with all bay doors in the closed position at all times. The sound transmission loss provided by building facades and doors in the closed position is estimated to be approximately 15 dB.

Table 31 shows the calculated attenuated repair shop noise levels at APN: 10-260-045 with implementation of the mitigation measures outlined above. The calculated attenuated increases in ambient daytime noise levels at APN: 10-260-045 are presented in Table 32.

Table 31
Predicted Mitigated Truck Repair Noise Level at Nearest Residential Use

APN	Predicted Noise Level, L_{eq} (dB)[1]	County Daytime Noise Standard, L_{eq} (dB)
10-260-045	46	**55**

[1] Predicted noise levels after implementation of Mitigation Measures 7A and 7B.

Table 32
Predicted Mitigated Ambient Plus Project Repair Shop Daytime Noise Increase at Nearest Existing Residential Use

APN	Predicted Noise Level, L_{eq} (dB)[1]	Ambient Plus Project, L_{eq} (dB)[2]	Increase in Ambient, L_{eq} (dB)[3]
10-260-045	46	60.2	0.2

[1] Calculated combined Leq noise level after implementation of Mitigation Measures 7A and 7B.
[2] Sum of predicted and measured ambient daytime noise levels.
[3] Calculated increase in ambient daytime noise levels.

Significance of Impact 7 after Mitigation: ***Less than Significant***

Impact 8: Cumulative Project Operations Noise at Nearest Noise-Sensitive Use

The calculated cumulative (combined) hourly average (L_{eq}) and highest predicted maximum (L_{max}) noise level exposure from analyzed on-site noise sources at the property line of APN: 10-260-045 is presented in Tables 33-36. The results presented in Tables 33-36 include implementation of the specific mitigation measures outlined in this report. It should be noted that due to the logarithmic nature of the decibel scale, the sum of two noise values which differ by 10 dB equates to an overall increase in noise levels of 0.4 dB. When the noise sources are equivalent, the sum would result in an overall increase in noise levels of 3 dB.

Table 33
Calculated Cumulative On-Site Operations Noise Levels at Residential Use – Daytime L_{eq}

	Predicted Noise Levels, L_{eq} (dB)[1]						
APN	Passenger Vehicle Parking	Truck Parking	On-Site Truck Circ.	Truck Refrigeration Units	Repair Shop	Calculated Cumulative, L_{eq} (dB)[2]	County Daytime Standard, L_{eq} (dB)
10-260-045	29	40	41	45	46	50	**55**

[1] Predicted Leq noise levels include implementation of all mitigation measures outlined in Impacts 3-7.
[2] Calculated combined (mitigated) Leq noise level exposure from analyzed on-site operations.

Table 34
Highest Predicted On-Site Operations Noise Levels at Residential Use – Daytime L_{max}

	Predicted Noise Levels, L_{max} (dB)[1]						
APN	Passenger Vehicle Parking	Truck Parking	On-Site Truck Circ.	Truck Refrigeration Units[2]	Repair Shop	Highest Predicted, L_{max} (dB)[3]	County Daytime Standard, L_{max} (dB)
10-260-045	53	62	64	--	47	64	**70**

[1] Predicted Lmax noise levels include implementation of all mitigation measures outlined in Impacts 3-7.
[2] Steady-state (continuous) noise source that was assessed relative to hourly Leq criteria only.
[3] Highest predicted (mitigated) Lmax noise level exposure from analyzed on-site operations.

Table 35
Calculated Cumulative On-Site Operations Noise Levels at Residential Use – Nighttime L_{eq}

	Predicted Noise Levels, L_{eq} (dB)[1]						
APN	Passenger Vehicle Parking	Truck Parking	On-Site Truck Circ.	Truck Refrigeration Units	Repair Shop[2]	Calculated Cumulative, L_{eq} (dB)[3]	County Nighttime Standard, L_{eq} (dB)
10-260-045	29	40	41	45	--	48	**45**

[1] Predicted Leq noise levels include implementation of all mitigation measures outlined in Impacts 3-7.
[2] No nighttime operations are proposed for repair shop.
[3] Calculated combined (mitigated) Leq noise level exposure from analyzed on-site operations.

Table 36
Highest Predicted On-Site Operations Noise Levels at Residential Use – Nighttime L_{max}

	Predicted Noise Levels, L_{max} (dB)[1]						
APN	Passenger Vehicle Parking	Truck Parking	On-Site Truck Circ.	Truck Refrigeration Units[2]	Repair Shop[3]	Highest Predicted, L_{max} (dB)[4]	County Nighttime Standard, L_{max} (dB)
10-260-045	53	62	64	--	--	64	**65**

[1] Predicted Lmax noise levels include implementation of all mitigation measures outlined in Impacts 3-7.
[2] Steady-state (continuous) noise source that was assessed relative to hourly Leq criteria only.
[3] No nighttime operations are proposed for repair shop.
[4] Highest predicted (mitigated) Lmax noise level exposure from analyzed on-site operations.

As indicated in Tables 33 and 34, the calculated combined hourly average (L_{eq}) and highest predicted maximum (L_{max}) project noise level exposure during daytime hours would comply with the County's daytime hourly average and maximum noise level standards at APN: 10-260-045. In addition, the highest predicted (L_{max}) project noise levels presented in Table 36 would satisfy the County's nighttime maximum noise level standard at APN: 10-260-045. However, the Table 35 data indicate that calculated combined hourly average (L_{eq}) nighttime noise level exposure from on-site operations would exceed the County's nighttime hourly average noise level standard at APN: 10-260-045. As mentioned previously, the results presented in Tables 33-36 include implementation of the specific noise mitigation measures outlined in this report.

Table 1 of this report summarizes the results from the BAC long-term ambient noise survey. Using the calculated mean of average measured hourly daytime and nighttime noise levels presented in Table 1, ambient plus combined project noise level increases were calculated at APN: 10-260-045 and the results of those calculations are presented in Tables 37-40.

Table 37
Ambient Plus Combined Project Noise Increases at Existing Residential Use – Daytime L_{eq}

APN	Calculated Combined Noise Level, L_{eq} (dB)[1]	Ambient Plus Project, L_{eq} (dB)[2]	Overall Increase in Ambient, L_{eq} (dB)[3]
10-260-045	50	60.4	0.4

[1] Calculated combined daytime Leq noise level from Table 33.
[2] Sum of calculated combined and measured ambient daytime Leq noise levels.
[3] Calculated combined increase in ambient daytime Leq noise levels.

Table 38
Ambient Plus Combined Project Noise Increases at Existing Residential Use – Daytime L_{max}

APN	Highest Predicted Noise Level, L_{max} (dB)[1]	Ambient Plus Project, L_{max} (dB)[2]	Overall Increase in Ambient, L_{max} (dB)[3]
10-260-045	64	79.1	0.1

[1] Highest predicted daytime Lmax noise level from Table 34.
[2] Sum of highest predicted and measured ambient daytime Lmax noise levels.
[3] Calculated combined increase in ambient daytime Lmax noise levels.

Table 39
Ambient Plus Combined Project Noise Increases at Existing Residential Use – Nighttime L_{eq}

APN	Calculated Combined Noise Level, L_{eq} (dB)[1]	Ambient Plus Project, L_{eq} (dB)[2]	Overall Increase in Ambient, L_{eq} (dB)[3]
10-260-045	48	57.5	0.5

[1] Calculated combined nighttime Leq noise level from Table 35.
[2] Sum of calculated combined and measured ambient nighttime Leq noise levels.
[3] Calculated combined increase in ambient nighttime Leq noise levels.

Table 40
Ambient Plus Combined Project Noise Increases at Existing Residential Use – Nighttime L_{max}

APN	Highest Predicted Noise Level, L_{max} (dB)[1]	Ambient Plus Project, L_{max} (dB)[2]	Overall Increase in Ambient, L_{max} (dB)[3]
10-260-045	64	76.3	0.3

[1] Highest predicted nighttime Lmax noise level from Table 36.
[2] Sum of highest predicted and measured ambient nighttime Lmax noise levels.
[3] Calculated combined increase in ambient nighttime Lmax noise levels.

As shown in Tables 37-40, the overall increases in ambient daytime and nighttime hourly average (L_{eq}) and maximum (L_{max}) noise levels from combined project on-site operations are calculated to be below the applied General Plan increase significance threshold of 1 dB at APN: 10-260-045.

However, because combined project on-site operations noise exposure is predicted to exceed the County's nighttime hourly average (L_{eq}) noise level standard at APN: 10-260-045 (Table 35), this impact is identified as **potentially significant.**

Mitigation Impact 8:

To satisfy the County's nighttime hourly average (L_{eq}) noise level standard at APN: 10-260-045, the following specific noise mitigation measure would be required of the project:

MM 8: Trucks requiring on-site refrigeration unit operation are restricted from parking in westernmost truck parking stalls (spaces 15-19) during nighttime hours (10:00 p.m. to 7:00 a.m.). Specifically, all trucks requiring on-site refrigeration unit operations would be limited to truck parking stalls 1-14 during nighttime hours. The locations of the truck parking stalls are shown in Figures 2 and 4.

Table 41 shows the calculated combined on-site operations nighttime hourly average (L_{eq}) noise level exposure at APN: 10-260-045 with implementation of the mitigation measure outlined above.

Table 41
Calculated Cumulative On-Site Operations Noise Levels at Existing Residential Use – Mitigated

	Predicted Noise Levels, L_{eq} (dB)						
APN	Passenger Vehicle Parking	Truck Parking	On-Site Truck Circ.	Truck Refrigeration Units[1]	Repair Shop	Calculated Cumulative, L_{eq} (dB)[2]	County Nighttime Standard, L_{eq} (dB)
10-260-045	29	40	41	40	--	45	**45**

[1] Predicted truck refrigeration unit noise levels include implementation of Mitigation Measure 8.

Significance of Impact 8 after Mitigation: ***Less than Significant***

Overall Off-Site Cumulative Impacts

Impact 9: Overall Cumulative Project Impacts

The project traffic impact analysis prepared by KDAnderson & Associates, Inc. (KDA), identifies approved/pending projects within the area of the proposed Moon Truck & Trailer Repair project. Specifically, the *Church of Glad Tidings* and *ET Eager Road Trucking* projects were identified. After a review of the project descriptions contained within the KDA report, it was determined that noise impacts associated with those projects would be highly localized to the area of that particular project. Additionally, traffic noise impacts are anticipated to be the most significant impact associated with those projects. As identified in **Impacts 1 and 2**, off-site traffic noise impacts resulting from the project, which utilizes KDA traffic data that includes consideration of traffic generated from the above-identified approved/pending projects in the project area, are identified as being ***less than significant***. Thus, this impact is similarly identified as being ***less than significant***.

Noise Impacts Associated with On-Site Construction

Impact 10: Project Construction Noise at Nearest Noise-Sensitive Use

During project construction, heavy equipment would be used for grading excavation, paving, and structure construction, which would increase ambient noise levels when in use. Noise levels would vary depending on the type of equipment used, how it is operated, and how well it is maintained. Noise exposure at any single point outside the project area would also vary depending upon the proximity of equipment activities to that point. The property line of the nearest identified existing residential use (APN: 10-260-045) is located approximately 80 feet from where heavy construction equipment could be used within the project area.

Table 42 includes the range of maximum (L_{max}) noise levels for equipment commonly used in general construction projects at full-power operation at a distance of 50 feet. It should be noted that not all of these construction activities would be required for the project. Table 42 data also include predicted maximum equipment noise levels at the nearest existing residential use approximately 80 feet away, which assume a standard spherical spreading loss of 6 dB per doubling of distance.

Table 42
Reference and Projected Noise Levels for Typical Construction Equipment

Equipment Description	Reference Maximum Noise Level at 50 Feet (dB)	Projected Maximum Noise Level at 80 feet (dB)
Air compressor	80	76
Backhoe	80	76
Ballast equalizer	82	78
Ballast tamper	83	79
Compactor	82	78
Concrete mixer	85	81
Concrete pump	82	78
Concrete vibrator	76	72
Crane, mobile	83	79
Dozer	85	81
Excavator	85	81
Generator	82	78
Grader	85	81
Impact wrench	85	81
Loader	80	76
Paver	85	81
Pneumatic tool	85	81
Pump	77	73
Saw	76	72
Scarifier	83	79
Scraper	85	81
Shovel	82	78
Spike driver	77	73
Tie cutter	84	80
Tie handler	80	76
Tie inserter	85	81
Truck	84	80
	Low	72
	High	81
	Average	78

Source: 2018 FTA Noise and Vibration Impact Assessment Manual, Table 7-1 & BAC (2022).

Pursuant to Policy N 1.6 of the Sutter County General Plan, noise-generating construction activities within 1,000 feet of noise-sensitive uses shall be limited to daytime hours between 7:00 a.m. to 6:00 p.m. on weekdays, 8:00 a.m. to 5:00 p.m. on Saturdays, and prohibited on Sundays and legal holidays unless permission has been granted by the County. However, Section 1500-21.5-070(B) of the Sutter County Municipal Code exempts noise sources associated with construction activities located within 1,000 feet for noise-sensitive uses provided such activities occur between the hours of 7:00 a.m. to 6:00 p.m. on weekdays, and 8:00 a.m. to 5:00 p.m. on Saturdays (construction is prohibited on Sundays and legal holidays unless permission is granted by the County). It is our understanding that all on-site noise-generating project construction equipment and activities will occur pursuant to General Plan Policy N 1.6 and Municipal Code Section 1500-21.5-070(B) and would thereby be exempt from applicable County non-transportation noise level standards.

In terms of determining the temporary noise increase due to project-related construction activities, a significant impact would be identified if project construction would substantially increase noise levels at existing sensitive receptors in the vicinity relative to the exterior incremental environmental noise impact criteria contained in Policy N 1.2 of the Sutter County General Plan (Table 5). The nearest noise-sensitive receptor has been identified as the existing residential use to the west, APN: 10-260-045. According to Table 5, a 1-2 dB increase is the threshold of significance where existing (no project) ambient noise levels are 60-65 dB DNL at residential uses. Based on the results from the BAC ambient noise survey near APN: 10-260-045 (survey site 1), a 1 dB threshold of significance is conservatively utilized in this analysis.

As indicated in Appendices C and D, measured hourly daytime maximum noise levels at BAC site 1 ranged from 69 to 87 dB L_{max} (arithmetic mean of 85 dB L_{max}) over the 96-hour monitoring period. Given the arithmetic means of measured daytime maximum noise levels at BAC site 1 (85 dB L_{max}) and worse-case construction equipment maximum noise levels (78 dB L_{max}, Table 42), ambient plus project noise level exposure is calculated to be 85.8 dB L_{max} at the property line of the existing residential use to the west (APN: 10-260-045). The calculated ambient plus project daytime maximum noise level of 85.8 dB L_{max} represents an increase of 0.8 dB L_{max} at that location, which is below the conservatively applied increase significance criterion of 1 dB.

Based on the analysis and results provided above, this impact is identified as being ***less than significant***. Nonetheless, to the reduce the potential for annoyance at nearby noise-sensitive uses, the following measures should be incorporated into project on-site construction operations:

- All on-site noise-generating project construction activities shall occur pursuant to the criteria identified in General Plan Policy N 1.6 and Municipal Code Section 1500-21.5-070(B).
- All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a federal, state, or local agency shall comply with such regulations while in the course of project activity.
- Electrically powered equipment shall be used instead of pneumatic or internal-combustion-powered equipment, where feasible.

- Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive uses.
- Project area and site access road speed limits shall be established and enforced during the construction period.
- Nearby residences shall be notified of construction schedules so that arrangements can be made, if desired, to limit their exposure to short-term increases in ambient noise levels.

Vibration Impacts Associated with On-Site Project Construction and Operations

Impact 11: On-Site Construction and Operations Vibration at Existing Structures

During project construction, heavy equipment would be used for grading, excavation, paving, and building construction, which would generate localized vibration in the immediate vicinity of the construction. The nearest off-site existing structures to where heavy equipment operations could occur within the project area have been identified as a vacant (dilapidated) structure on the adjacent parcel to the east (approximately 75 away), and the existing residence on APN: 10-260-045 to the west (approximately 110 feet away).

Table 43 includes the range of vibration levels for equipment commonly used in general construction projects at a distance of 25 feet. Table 43 data also include projected heavy equipment vibration levels at the aforementioned identified existing structures.

Table 43
Reference and Projected Vibration Source Amplitudes for Construction Equipment

Equipment	Reference Maximum Vibration Level at 25 feet, VdB (rms)	Projected Maximum Vibration Level, VdB (rms)[1]	
		75 Feet	110 Feet
Vibratory Roller	94	80	71
Hoe Ram	87	67	63
Large bulldozer	87	67	61
Loaded trucks	86	66	59
Jackhammer	79	60	59
Small bulldozer	58	55	52

[1] RMS velocity in decibels (VdB) re 1 micro-inch/second.

Source: 2018 FTA Transit Noise and Vibration Impact Assessment Manual and BAC calculations.

The FTA groundborne vibration impact criteria presented in Table 7 of this report indicates an impact level of 72 VdB for residences exposed to frequent events – defined as more than 70 vibration events of the same source per day. In addition, according to Table 12-3 of the Federal Transit Administration (FTA) Transit Noise and Vibration Manual, engineered concrete and masonry buildings, such as those located nearest to the project area (i.e., residence and vacant building), are assigned a vibration impact threshold level of 98 VdB before damage could occur.

As shown in Table 43, vibration levels from on-site heavy construction activities are projected to range from well below the threshold of human perception of 65 VdB to slightly above that threshold (71 VdB) at the closest existing residence constructed on APN: 10-260-045 to the west located

110 feet away. At the vacant (dilapidated) structure on the adjacent parcel to the east, project construction vibration levels are projected to primarily range from well below the 65 VdB threshold of human perception to slightly above that threshold (67 VdB), with one piece of equipment projected to potentially approach 80 VdB. Finally, construction-related vibration levels are generally predicted to be below levels considered to be annoying (75 VdB) at distances of 75 and 110 feet from construction activities. Based on the analysis provided above, on-site construction within the project area is not expected to result in excessive groundborne vibration levels at nearby off-site existing structures.

Results from the ambient vibration level monitoring within the project area (Table 3) indicate that average measured vibration levels were well below the 65 VdB threshold of perception. Therefore, it is expected that the project would not result in the exposure of persons to excessive groundborne vibration levels at proposed uses of the project.

Finally, the project proposes the construction of a truck and trailer repair and parking facility. While traffic/trucks traveling on roadways are a source of vibration, these sources rarely generate vibration amplitudes high enough to cause structural or cosmetic damage. Further, vibration levels generated by project on-site traffic/truck passbys will be at low speed and are expected to dissipate rapidly with distance. Based on the information above, project on-site operations are not expected to generate appreciable vibration.

Because vibration levels due to both project construction and operations related to proposed uses within the project area are expected to be satisfactory relative to the applicable FTA vibration impact criteria, this impact is identified as being ***less than significant***.

This concludes BAC's noise and vibration assessment of the Moon Truck & Trailer Repair facility in Sutter County, California. Please contact BAC at (530) 537-2328 or dariog@bacnoise.com if you have any comments or questions regarding this report.

Appendix A
Acoustical Terminology

Acoustics The science of sound.

Ambient Noise The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.

Attenuation The reduction of an acoustic signal.

A-Weighting A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.

Decibel or dB Fundamental unit of sound. A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.

CNEL Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.

Frequency The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz.

IIC Impact Insulation Class (IIC): A single-number representation of a floor/ceiling partition's impact generated noise insulation performance. The field-measured version of this number is the FIIC.

L_{dn} Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.

L_{eq} Equivalent or energy-averaged sound level.

L_{max} The highest root-mean-square (RMS) sound level measured over a given period of time.

Loudness A subjective term for the sensation of the magnitude of sound.

Masking The amount (or the process) by which the threshold of audibility is for one sound is raised by the presence of another (masking) sound.

Noise Unwanted sound.

Peak Noise The level corresponding to the highest (not RMS) sound pressure measured over a given period of time. This term is often confused with the "Maximum" level, which is the highest RMS level.

RT_{60} The time it takes reverberant sound to decay by 60 dB once the source has been removed.

STC Sound Transmission Class (STC): A single-number representation of a partition's noise insulation performance. This number is based on laboratory-measured, 16-band (1/3-octave) transmission loss (TL) data of the subject partition. The field-measured version of this number is the FSTC.

Legend

A Site 1: Noise monitoring equipment, facing west towards residential use

B Site 1: Vibration monitoring equipment, facing west toward residential use

C Site 2: Noise monitoring equipment, facing southeast in orchard

D Site 2: Vibration monitoring equipment, facing southeast in orchard

Moon Truck & Trailer Repair

Sutter County, California

Noise & Vibration Survey Photographs

Appendix B

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Appendix C-1
Long-Term Ambient Noise Monitoring Results - Site 1
Moon Truck & Trailer Repair - Sutter County, California
Friday, October 21, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	58	77	51	43
1:00 AM	58	88	49	42
2:00 AM	59	75	52	44
3:00 AM	62	89	53	49
4:00 AM	58	72	56	51
5:00 AM	61	80	60	55
6:00 AM	64	78	63	59
7:00 AM	62	81	61	59
8:00 AM	60	83	57	54
9:00 AM	58	73	54	50
10:00 AM	56	73	52	48
11:00 AM	56	74	53	49
12:00 PM	55	74	52	48
1:00 PM	58	78	53	49
2:00 PM	59	76	56	52
3:00 PM	60	85	57	54
4:00 PM	60	80	59	55
5:00 PM	60	75	58	56
6:00 PM	59	70	58	54
7:00 PM	57	77	56	52
8:00 PM	59	81	55	51
9:00 PM	56	74	54	49
10:00 PM	58	76	53	48
11:00 PM	59	83	52	47

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	62	55	59	64	58	60
Lmax (Maximum)	85	70	77	89	72	80
L50 (Median)	61	52	56	63	49	54
L90 (Background)	59	48	52	59	42	49

Computed DNL, dB	66
% Daytime Energy	54%
% Nighttime Energy	46%

GPS Coordinates	39°11'21.56"N
	121°37'56.20"W

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Appendix C-2
Long-Term Ambient Noise Monitoring Results - Site 1
Moon Truck & Trailer Repair - Sutter County, California
Saturday, October 22, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	52	74	48	42
1:00 AM	54	76	47	41
2:00 AM	50	72	46	39
3:00 AM	55	82	46	40
4:00 AM	53	79	47	41
5:00 AM	54	77	50	44
6:00 AM	55	67	53	49
7:00 AM	56	76	54	50
8:00 AM	58	73	55	51
9:00 AM	56	82	53	49
10:00 AM	60	81	57	52
11:00 AM	60	79	58	55
12:00 PM	60	83	57	54
1:00 PM	60	78	57	53
2:00 PM	61	84	59	55
3:00 PM	62	82	58	54
4:00 PM	59	78	57	53
5:00 PM	58	79	56	53
6:00 PM	58	79	57	54
7:00 PM	57	69	56	53
8:00 PM	58	80	55	52
9:00 PM	59	81	55	51
10:00 PM	58	80	55	51
11:00 PM	58	85	55	50

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	62	56	59	58	50	55
Lmax (Maximum)	84	69	79	85	67	77
L50 (Median)	59	53	56	55	46	50
L90 (Background)	55	49	53	51	39	44

Computed DNL, dB	62
% Daytime Energy	81%
% Nighttime Energy	19%

GPS Coordinates	39°11'21.56"N
	121°37'56.20"W

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Appendix C-3
Long-Term Ambient Noise Monitoring Results - Site 1
Moon Truck & Trailer Repair - Sutter County, California
Sunday, October 23, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	59	85	51	47
1:00 AM	51	69	49	44
2:00 AM	52	71	48	44
3:00 AM	52	69	48	44
4:00 AM	51	68	48	43
5:00 AM	53	73	51	47
6:00 AM	56	73	54	51
7:00 AM	58	81	55	52
8:00 AM	57	78	55	52
9:00 AM	59	80	56	53
10:00 AM	59	81	57	53
11:00 AM	61	85	58	53
12:00 PM	60	80	58	54
1:00 PM	62	85	59	55
2:00 PM	61	83	59	55
3:00 PM	61	81	59	55
4:00 PM	63	84	59	56
5:00 PM	61	80	58	54
6:00 PM	61	87	57	53
7:00 PM	59	81	55	52
8:00 PM	56	80	54	50
9:00 PM	54	71	53	49
10:00 PM	52	71	50	45
11:00 PM	57	79	49	42

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	63	54	60	59	51	55
Lmax (Maximum)	87	71	81	85	68	73
L50 (Median)	59	53	57	54	48	50
L90 (Background)	56	49	53	51	42	45

Computed DNL, dB	62
% Daytime Energy	85%
% Nighttime Energy	15%

GPS Coordinates	39°11'21.56"N
	121°37'56.20"W

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Appendix C-4
Long-Term Ambient Noise Monitoring Results - Site 1
Moon Truck & Trailer Repair - Sutter County, California
Monday, October 24, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	50	70	46	39
1:00 AM	53	77	46	38
2:00 AM	58	79	48	41
3:00 AM	50	64	48	42
4:00 AM	54	71	52	47
5:00 AM	59	80	58	54
6:00 AM	58	74	57	55
7:00 AM	60	75	58	56
8:00 AM	58	74	56	52
9:00 AM	57	76	55	51
10:00 AM	57	76	54	50
11:00 AM	58	77	55	51
12:00 PM	56	72	54	49
1:00 PM	57	81	53	50
2:00 PM	58	84	53	49
3:00 PM	58	75	55	52
4:00 PM	57	74	55	51
5:00 PM	65	74	56	52
6:00 PM	60	75	58	55
7:00 PM	59	75	58	54
8:00 PM	61	78	57	52
9:00 PM	61	83	56	51
10:00 PM	60	85	52	46
11:00 PM	52	71	49	44

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	65	56	59	60	50	56
Lmax (Maximum)	84	72	77	85	64	75
L50 (Median)	58	53	55	58	46	51
L90 (Background)	56	49	52	55	38	45

Computed DNL, dB	63
% Daytime Energy	77%
% Nighttime Energy	23%

GPS Coordinates	39°11'21.56"N
	121°37'56.20"W

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Appendix C-5
Long-Term Ambient Noise Monitoring Results - Site 2
Moon Truck & Trailer Repair - Sutter County, California
Friday, October 21, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	57	78	50	42
1:00 AM	56	85	49	40
2:00 AM	59	75	52	43
3:00 AM	62	90	54	49
4:00 AM	59	69	57	51
5:00 AM	62	79	60	56
6:00 AM	64	74	64	60
7:00 AM	63	70	62	60
8:00 AM	59	73	58	55
9:00 AM	56	73	53	49
10:00 AM	57	82	51	47
11:00 AM	56	73	53	47
12:00 PM	54	70	52	47
1:00 PM	61	80	53	47
2:00 PM	59	75	56	52
3:00 PM	59	73	57	53
4:00 PM	60	82	59	56
5:00 PM	60	82	58	55
6:00 PM	59	70	58	54
7:00 PM	57	71	55	51
8:00 PM	59	81	54	50
9:00 PM	55	75	52	48
10:00 PM	58	75	52	47
11:00 PM	59	87	50	45

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	63	54	59	64	56	60
Lmax (Maximum)	82	70	75	90	69	79
L50 (Median)	62	51	55	64	49	54
L90 (Background)	60	47	51	60	40	48

Computed DNL, dB	66
% Daytime Energy	55%
% Nighttime Energy	45%

GPS Coordinates	39°11'20.62"N
	121°37'53.58"W

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Appendix C-6
Long-Term Ambient Noise Monitoring Results - Site 2
Moon Truck & Trailer Repair - Sutter County, California
Saturday, October 22, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	50	67	46	40
1:00 AM	54	74	44	38
2:00 AM	48	66	43	37
3:00 AM	57	79	45	38
4:00 AM	52	70	46	39
5:00 AM	54	77	50	44
6:00 AM	55	70	53	49
7:00 AM	55	71	54	50
8:00 AM	58	71	56	52
9:00 AM	55	75	54	51
10:00 AM	58	68	57	53
11:00 AM	59	75	58	55
12:00 PM	59	78	58	54
1:00 PM	58	76	57	54
2:00 PM	59	67	59	55
3:00 PM	63	88	58	55
4:00 PM	59	73	58	55
5:00 PM	58	69	57	54
6:00 PM	58	70	58	55
7:00 PM	58	70	57	53
8:00 PM	58	79	56	53
9:00 PM	60	85	56	52
10:00 PM	56	68	55	52
11:00 PM	57	70	55	50

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	63	55	59	57	48	55
Lmax (Maximum)	88	67	74	79	66	71
L50 (Median)	59	54	57	55	43	49
L90 (Background)	55	50	53	52	37	43

Computed DNL, dB	62
% Daytime Energy	81%
% Nighttime Energy	19%

GPS Coordinates	39°11'20.62"N
	121°37'53.58"W

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Appendix C-7
Long-Term Ambient Noise Monitoring Results - Site 2
Moon Truck & Trailer Repair - Sutter County, California
Sunday, October 23, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	59	84	52	48
1:00 AM	51	62	50	45
2:00 AM	52	71	49	45
3:00 AM	51	70	49	44
4:00 AM	51	64	49	42
5:00 AM	53	64	52	47
6:00 AM	56	74	54	51
7:00 AM	57	76	55	51
8:00 AM	57	66	56	53
9:00 AM	60	86	57	53
10:00 AM	60	85	57	54
11:00 AM	62	89	58	54
12:00 PM	59	72	58	55
1:00 PM	59	70	59	56
2:00 PM	59	72	59	56
3:00 PM	60	70	59	56
4:00 PM	62	85	59	56
5:00 PM	60	74	59	55
6:00 PM	58	74	58	54
7:00 PM	60	83	56	52
8:00 PM	56	69	55	51
9:00 PM	55	67	54	50
10:00 PM	53	68	52	46
11:00 PM	60	86	50	43

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	62	55	59	60	51	55
Lmax (Maximum)	89	66	76	86	62	72
L50 (Median)	59	54	57	54	49	51
L90 (Background)	56	50	54	51	42	46

Computed DNL, dB	63
% Daytime Energy	80%
% Nighttime Energy	20%

GPS Coordinates	39°11'20.62"N
	121°37'53.58"W

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Appendix C-8
Long-Term Ambient Noise Monitoring Results - Site 2
Moon Truck & Trailer Repair - Sutter County, California
Monday, October 24, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	49	61	47	40
1:00 AM	54	79	47	39
2:00 AM	60	85	48	41
3:00 AM	51	64	49	42
4:00 AM	54	68	53	48
5:00 AM	59	74	58	55
6:00 AM	59	67	58	56
7:00 AM	60	71	59	57
8:00 AM	57	69	55	52
9:00 AM	55	64	54	51
10:00 AM	56	79	53	50
11:00 AM	55	81	52	50
12:00 PM	53	70	52	48
1:00 PM	55	72	53	49
2:00 PM	54	70	52	48
3:00 PM	57	78	54	50
4:00 PM	57	71	56	49
5:00 PM	62	87	56	52
6:00 PM	60	71	58	54
7:00 PM	59	73	57	53
8:00 PM	60	81	56	51
9:00 PM	65	92	55	50
10:00 PM	62	89	51	45
11:00 PM	51	65	48	42

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	65	53	59	62	49	57
Lmax (Maximum)	92	64	75	89	61	73
L50 (Median)	59	52	55	58	47	51
L90 (Background)	57	48	51	56	39	45

Computed DNL, dB	64
% Daytime Energy	70%
% Nighttime Energy	30%

GPS Coordinates	39°11'20.62"N
	121°37'53.58"W

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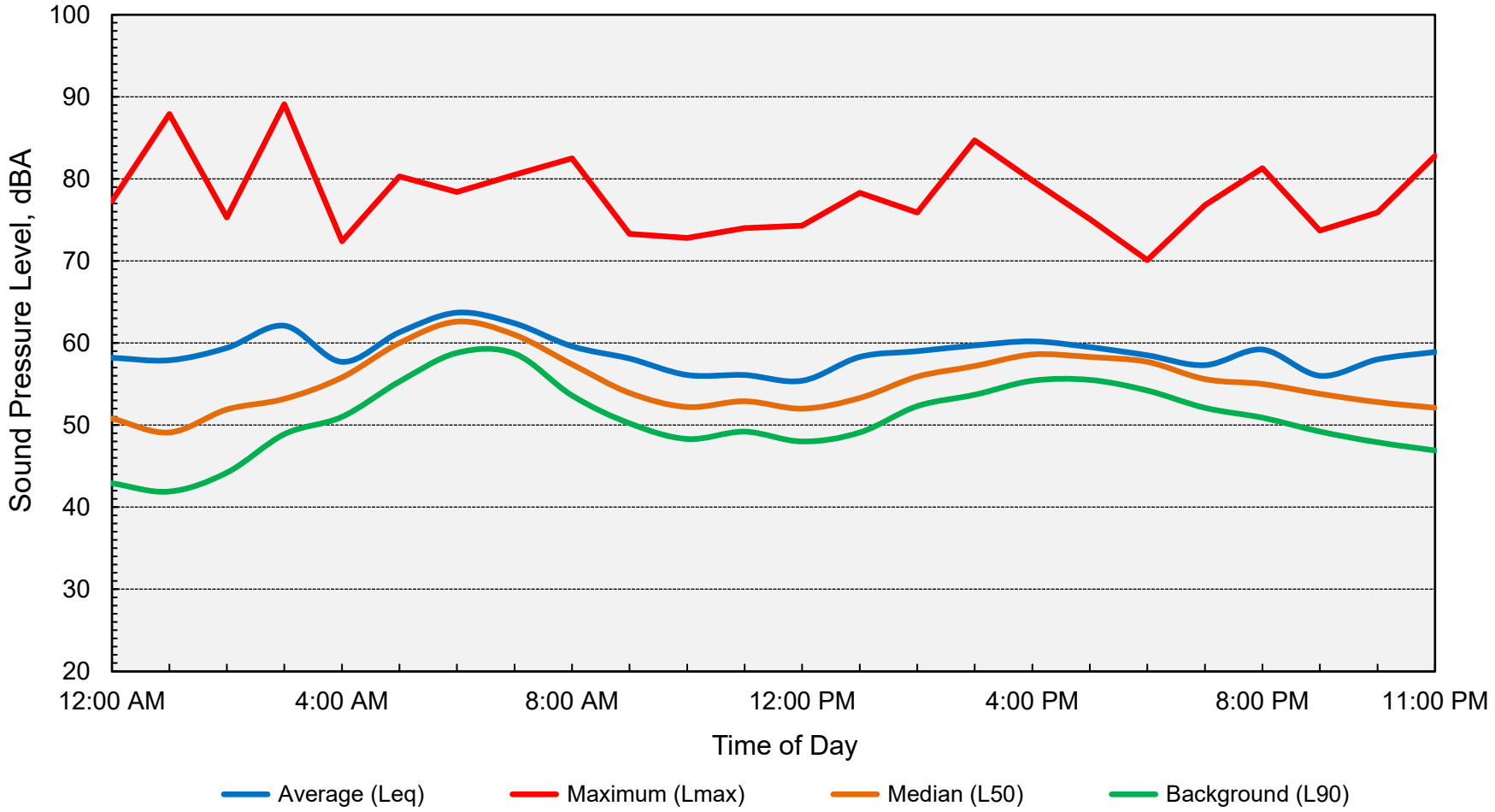
Appendix D-1
Long-Term Ambient Noise Monitoring Results - Site 1
Moon Truck & Trailer Repair - Sutter County, California
Friday, October 21, 2022



Computed DNL = 66 dB

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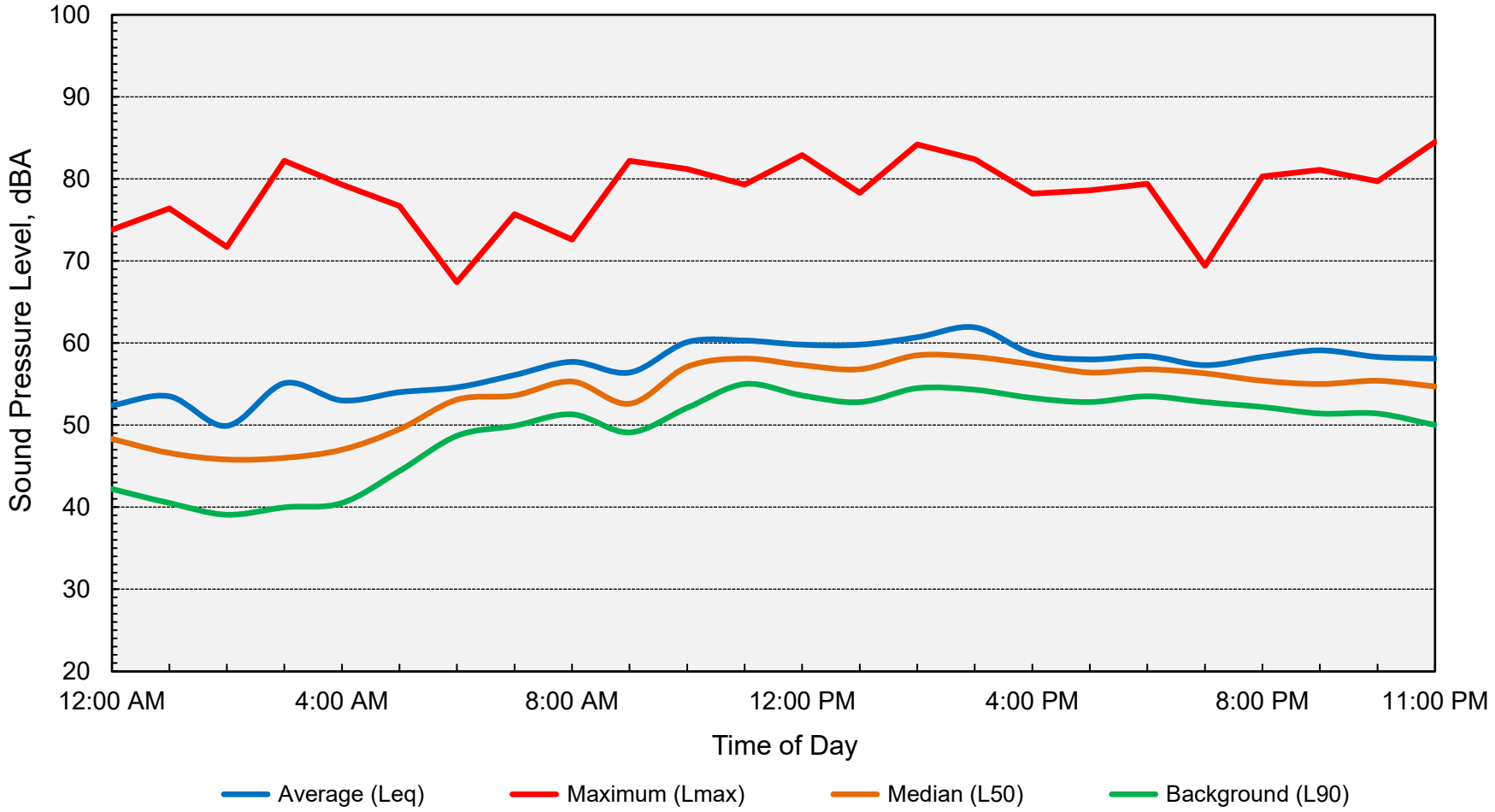
Appendix D-2
Long-Term Ambient Noise Monitoring Results - Site 1
Moon Truck & Trailer Repair - Sutter County, California
Saturday, October 22, 2022



Computed DNL = 62 dB

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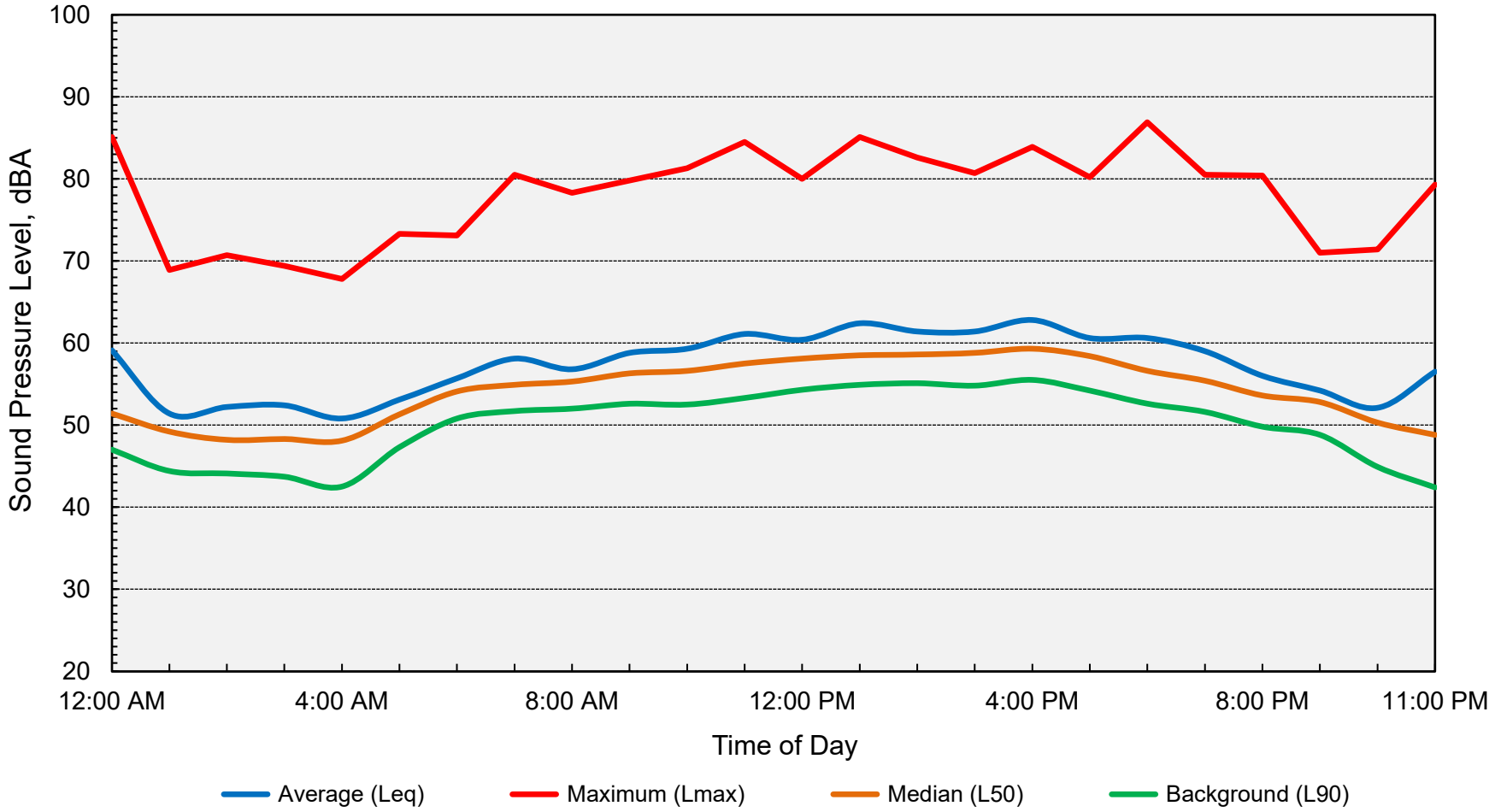
Appendix D-3
Long-Term Ambient Noise Monitoring Results - Site 1
Moon Truck & Trailer Repair - Sutter County, California
Sunday, October 23, 2022



Computed DNL = 62 dB

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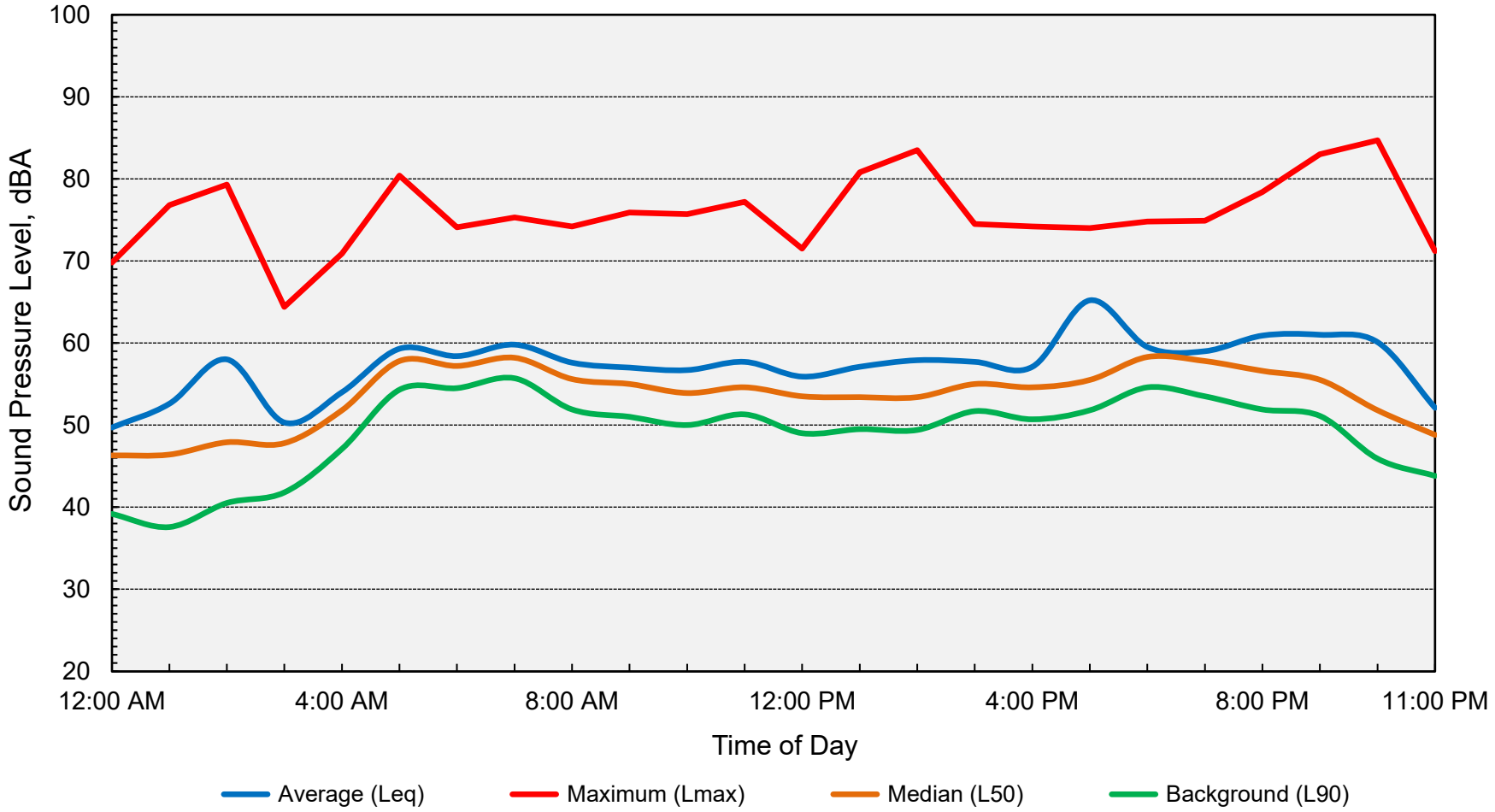
Appendix D-4
Long-Term Ambient Noise Monitoring Results - Site 1
Moon Truck & Trailer Repair - Sutter County, California
Monday, October 24, 2022



Computed DNL = 63 dB

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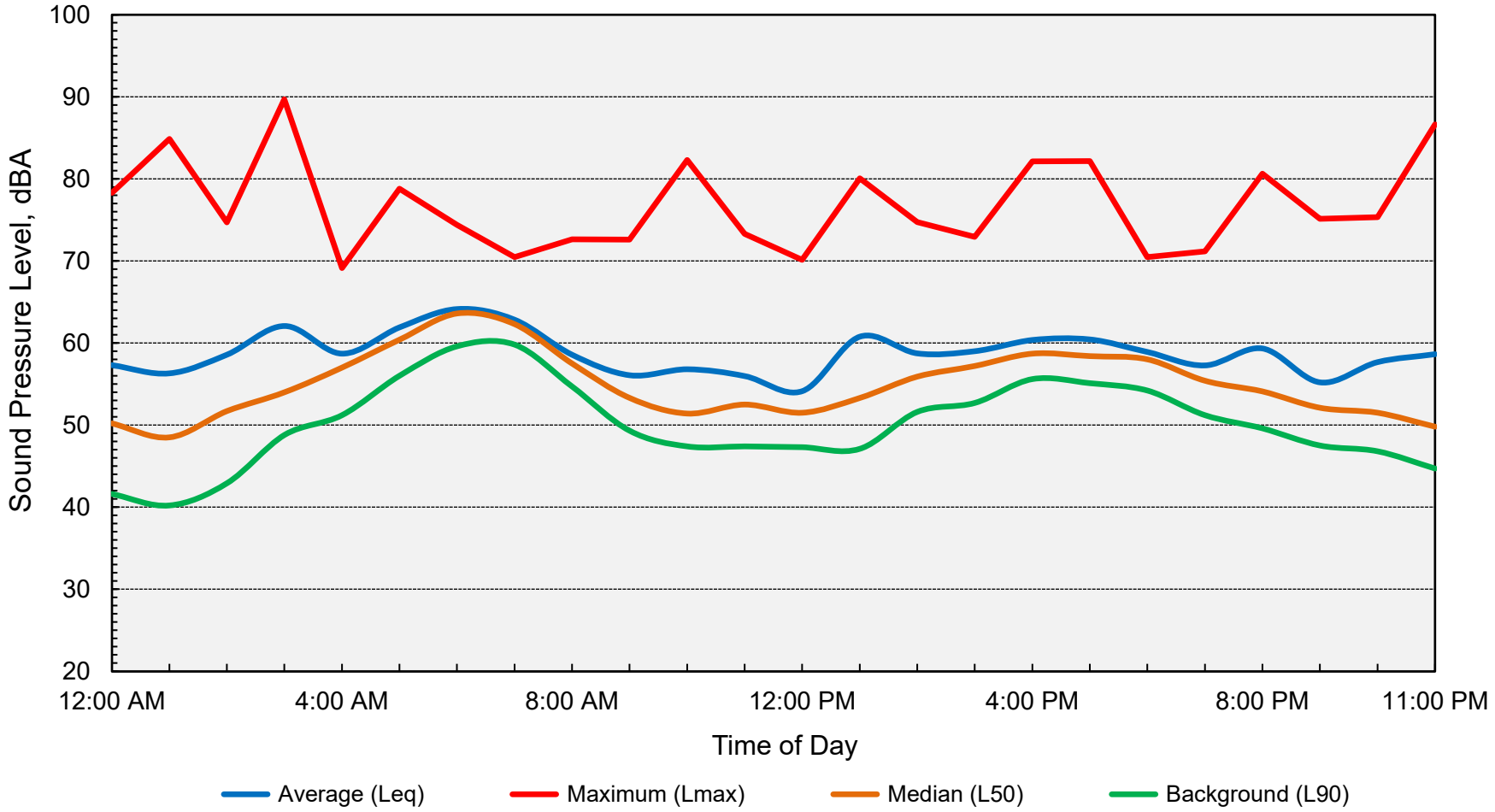
Appendix D-5
Long-Term Ambient Noise Monitoring Results - Site 2
Moon Truck & Trailer Repair - Sutter County, California
Friday, October 21, 2022



Computed DNL = 66 dB

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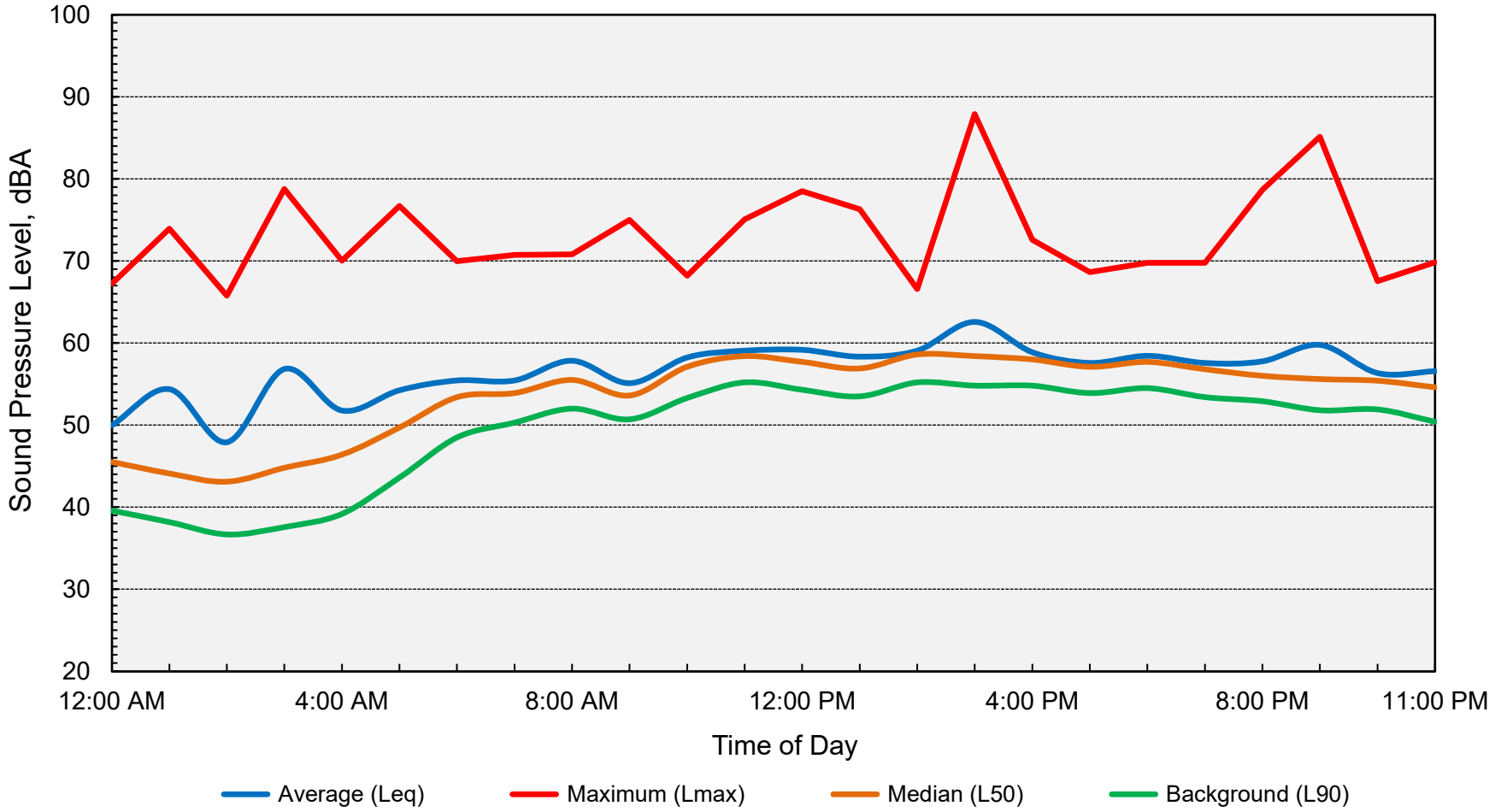
Appendix D-6
Long-Term Ambient Noise Monitoring Results - Site 2
Moon Truck & Trailer Repair - Sutter County, California
Saturday, October 22, 2022



Computed DNL = 62 dB

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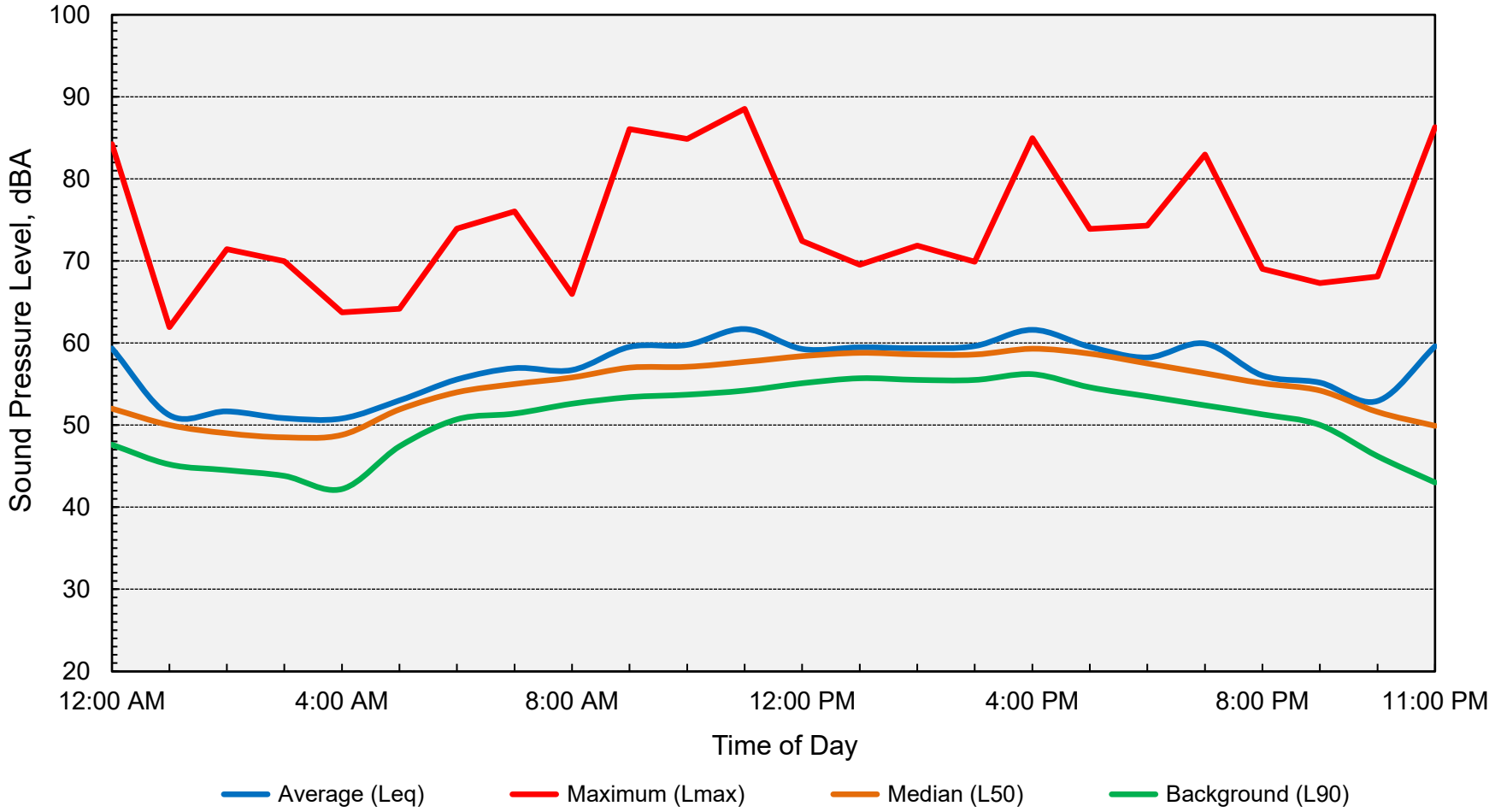
Appendix D-7
Long-Term Ambient Noise Monitoring Results - Site 2
Moon Truck & Trailer Repair - Sutter County, California
Sunday, October 23, 2022



Computed DNL = 63 dB

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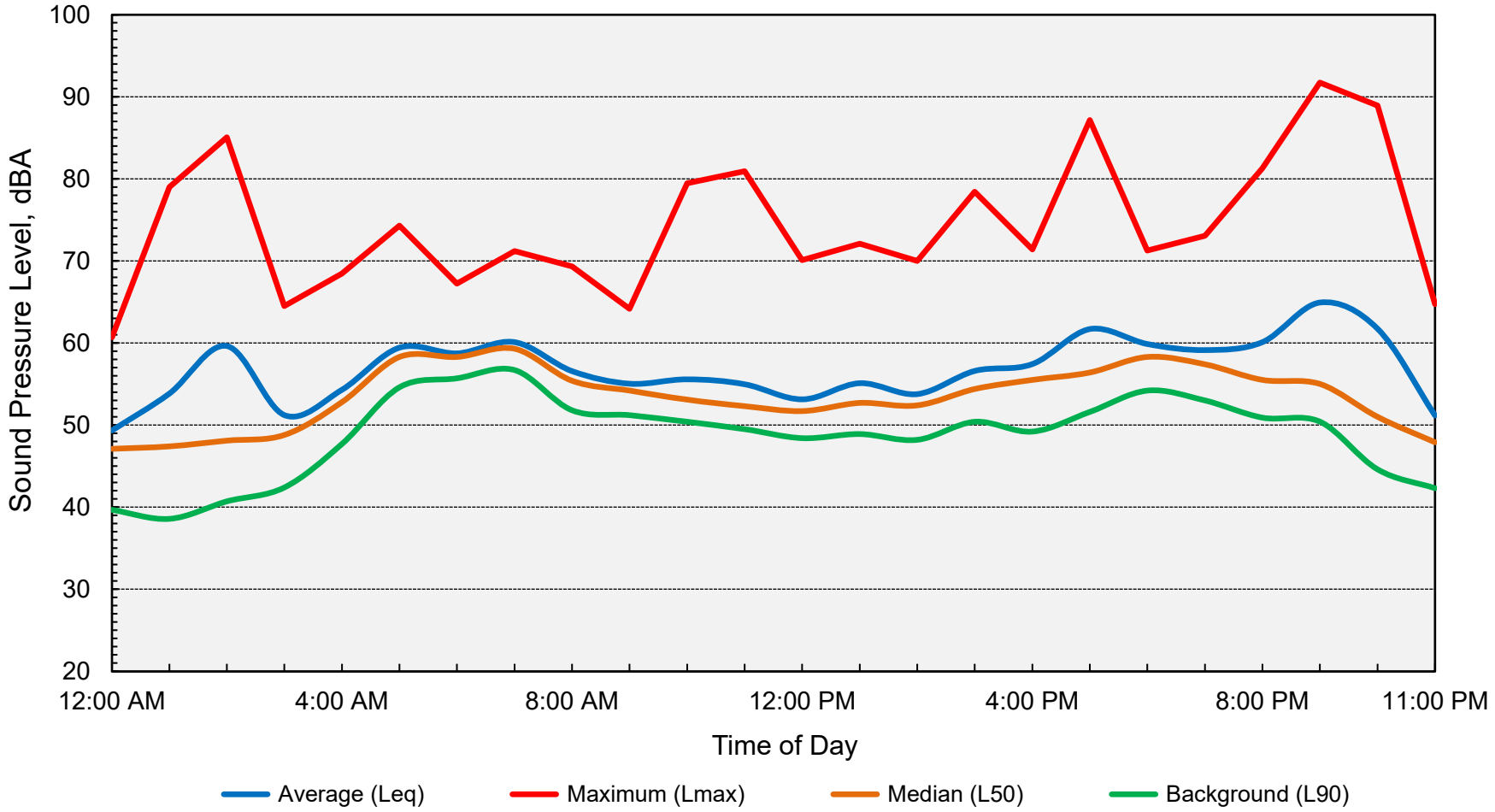
Appendix D-8
Long-Term Ambient Noise Monitoring Results - Site 2
Moon Truck & Trailer Repair - Sutter County, California
Monday, October 24, 2022



Computed DNL = 64 dB

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Appendix E
FHWA Highway Traffic Noise Prediction Model Inputs
Moon Truck Trailer Repair
File Name: Existing
Run Date: 12/12/2022

#	Roadway	Description	ADT	Day %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance to Receptor	Offset (dB)
1	Eager Rd	West of SR 99 SB Ramps	1,895	80	20	2	2	55	50	0
2	Eager Rd	SR 99 SB Ramps to SR 99 NB Ramps	3,465	80	20	2	2	45	140	0
3	Eager Rd	SR 99 NB Ramps to Project Dwy	4,305	80	20	2	2	35	100	0
4	Eager Rd	Project Dwy to Live Oak Blvd	4,265	80	20	2	2	35	480	0
5	SR 99 SB Ramps	South of Eager Rd	465	80	20	2	2	55	1,800	0
6	SR 99 NB Ramps	North of Eager Rd	1,250	80	20	2	2	55	250	0

Appendix F-1
FHWA Traffic Noise Prediction Model (FHWA-RD-77-108)
Noise Prediction Worksheet

Project Information:

Job Number: 2022-131
Project Name: Moon Truck and Trailer Repair
Roadway Name: Eager Road

Traffic Data:

Year: Daily Project-Generated Traffic
Average Daily Traffic Volume: 55
Percent Daytime Traffic: 50
Percent Nighttime Traffic: 50
Percent Medium Trucks (2 axle): 1
Percent Heavy Trucks (3+ axle): 33
Assumed Vehicle Speed (mph): 35
Intervening Ground Type (hard/soft): **Soft**

Traffic Noise Levels:

				DNL (dB)			
Segment	Description	Distance	Offset (dB)	Autos	Medium Trucks	Heavy Trucks	Total
1	SR 99 to Live Oak Blvd	50		42	31	54	54.4

Traffic Noise Contours (No Calibration Offset):

DNL Contour (dB)	Distance from Centerline (ft)
75	2
70	5
65	10
60	21

Notes: 1. Average daily traffic volume (project vehicle trips per day) obtained from the project traffic impact analyis prepared by KDAnderson & Associates, Inc.

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Appendix F-2
FHWA Traffic Noise Prediction Model (FHWA-RD-77-108)
Noise Prediction Worksheet

Project Information:

Job Number: 2022-131
Project Name: Moon Truck and Trailer Repair
Roadway Name: Eager Road

Traffic Data:

Year: Existing
Average Daily Traffic Volume: 4,650
Percent Daytime Traffic: 80
Percent Nighttime Traffic: 20
Percent Medium Trucks (2 axle): 2
Percent Heavy Trucks (3+ axle): 2
Assumed Vehicle Speed (mph): 35
Intervening Ground Type (hard/soft): **Soft**

Traffic Noise Levels:

				DNL (dB)			
Segment	**Description**	**Distance**	**Offset (dB)**	**Autos**	**Medium Trucks**	**Heavy Trucks**	**Total**
1	SR 99 to Live Oak Blvd	50		60	53	58	62.9

Traffic Noise Contours (No Calibration Offset):

DNL Contour (dB)	Distance from Centerline (ft)
75	8
70	17
65	36
60	78

Notes: 1. Existing average daily traffic volume calculated from data contained in the project traffic impact analysis prepared by KDAnderson & Asscociates, Inc.

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Appendix F-3
FHWA Traffic Noise Prediction Model (FHWA-RD-77-108)
Noise Prediction Worksheet

Project Information:

Job Number: 2022-131
Project Name: Moon Truck and Trailer Repair
Roadway Name: Eager Road

Traffic Data:

Year: Future
Average Daily Traffic Volume: 5,675
Percent Daytime Traffic: 80
Percent Nighttime Traffic: 20
Percent Medium Trucks (2 axle): 2
Percent Heavy Trucks (3+ axle): 2
Assumed Vehicle Speed (mph): 35
Intervening Ground Type (hard/soft): **Soft**

Traffic Noise Levels:

				DNL (dB)			
Segment	**Description**	**Distance**	**Offset (dB)**	**Autos**	**Medium Trucks**	**Heavy Trucks**	**Total**
1	SR 99 to Live Oak Blvd	50		61	54	59	63.7

Traffic Noise Contours (No Calibration Offset):

DNL Contour (dB)	Distance from Centerline (ft)
75	9
70	19
65	41
60	89

Notes: 1. Future (2040) average daily traffic volume data obtained from project traffic impact analysis prepared by KDAnderson & Asscociates, Inc.

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Draft Analysis of Impacts to Air Quality and Greenhouse Gas from Proposed Tr Parking and Repair Yard

Yuba City, California

May 22, 2023

Prepared For:
Shafqat Hussain
2026 Nicholas Drive
Yuba City, CA 95993

Prepared By:
Environmental Permitting Specialists
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Sacramento, CA 95831
Contact: Ray Kapahi, Principal
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TABLE OF CONTENTS

SECTION 1: INTRODUCTION

Environmental Permitting Specialists (EPS) has prepared an analysis to evaluate impacts to air quality, greenhouse gas (GHG) and public health risks associated with the proposed truck trailer parking and repair yard in Sutter County. The proposed facility would be located at 1166 Eager Road in Sutter County. This analysis has been prepared in support of an environmental review being conducted by the Planning Department at Sutter County.

The project, is located at the Southwest corner of Eager Road and Highway 99 in the rural section of Sutter County. The site would occupy approximately 2.5 acres and would have 24 parking spaces (Figure 1-1). The site is currently vacant three small buildings that will remain at the site (Figure 1-2). A new shop (60 feet x 80 feet) would be built as part of the project. The truck and trailer yard will operate 24 hours per day, 7 days per week. Trucks would travel from the yard to nearby arterial roads and highways such as Routes 99, 113 and I-5.

Construction at the site would involve minimal grading and site work followed by paving. No demolition is required except for the removal of existing fencing and four trees. Construction is expected to begin by the Fall of 2023 and would be completed by the end of 2023. The following impacts are evaluated:

Project Phase	Air Quality	Public Health	Greenhouse Gas
Construction	x		x
Operational (Occupancy)	x	x	x

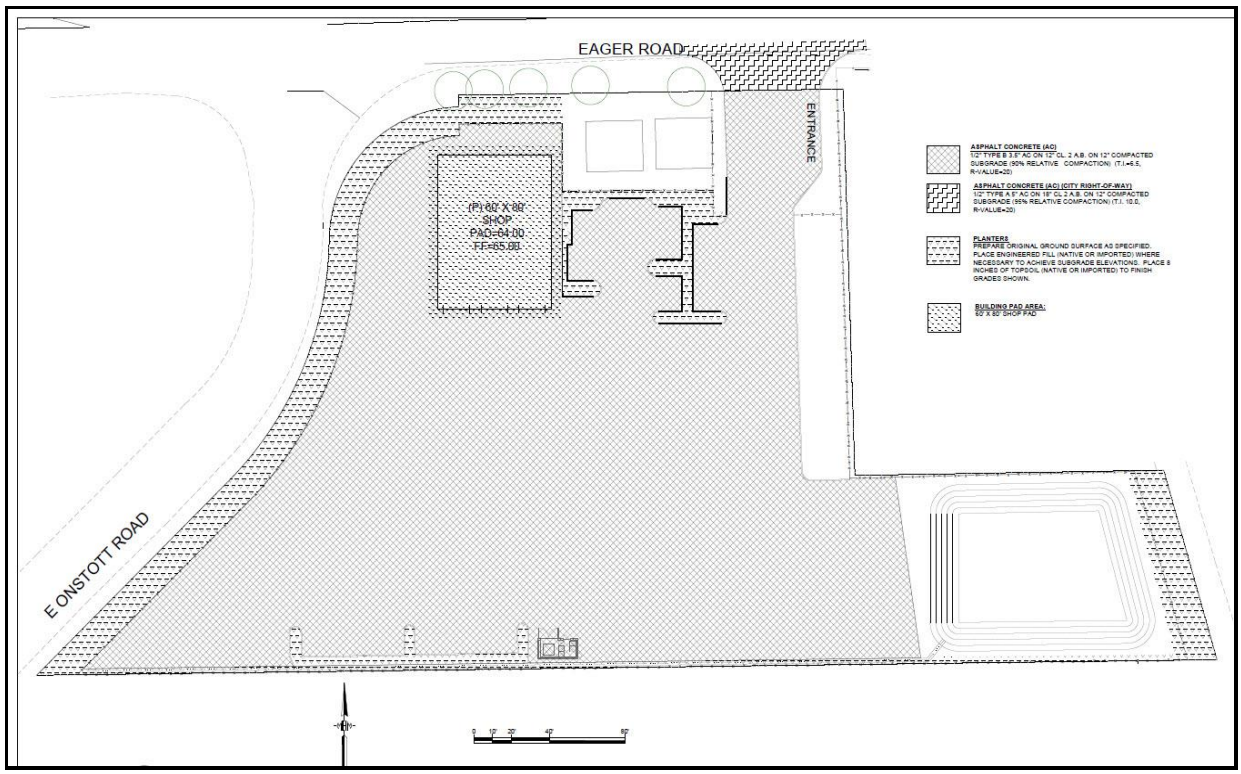
The overall approach used in this analysis is to quantify the emission rates of regulated air pollutants for the construction and occupancy phases and then compare the emission rates with thresholds of significance established by the Feather River Air Quality Management District (FRAQMD). The project is considered to have potentially significant environmental impact if any of the emission rates exceed the thresholds of significance established by FRAQMD. The thresholds of significance are discussed in Section 3.

This report is divided into 5 main sections. Immediately following this Introduction, the project emissions are discussed in Section 2. The Project impacts are discussed in Section 3. The report concludes with a discussion of the significance of the project's impacts on air quality, public health and GHG (Section 5). Technical details and calculations are provided in the Appendix.

Figure 1-1
Vicinity Map
(Source: K.D. Anderson, Inc.)

Figure 1-2
Site Map

Source: MHM Engineers & Surveyors



SECTION 2: PROJECT EMISSIONS

The construction and operation of the truck and trailer parking and repair yard would release a variety of emissions. These can be divided into three categories:

A. Criteria air emissions
   - Oxides of nitrogen (NOx)
   - Carbon monoxide (CO)
   - Volatile organic compounds (VOCs)
   - Oxides of sulfur (SOx)
   - Fine particulate matter (PM-10)
   - Ultra-fine particulate matter (PM-2.5)

B. Emissions of toxic air contaminants
   - Primarily diesel particulate matter (DPM, same as exhaust PM-10))

C. Emissions of greenhouse gases
   - Carbon dioxide (CO_2)
   - Methane (CH_4)
   - Nitrous Oxide (N_2O_2)

2.1 Construction Emissions

As noted in the Introduction, construction would consist of site work, some minimal grading and paving. Construction is expected to begin September 1, 2023 and be completed by December 31, 2023. Demolition would be limited to the removal of four trees and an existing fence. No soil would be imported or exported. Overall, construction would release fugitive dust, exhaust emissions from construction equipment and VOC emissions from the asphaltic concrete.

The construction of the 60 foot x 80 foot shop would involve the use of hand tools. Since there is temporary electric power available at the site, the use of portable generators will be minimal. As a result, no heavy equipment will be used in the construction of the shop.

The emission rates were calculated using the California Emissions Estimator Model (CalEEMod) developed by the California Air Pollution Control Officers Association. Version 2022.1.1 of this model was used to calculate the emissions. The results are summarized in Figures 2-1 and 2-2. A copy of the CalEEMod report is attached.

Figure 2-1
Excerpt of Average Daily Emissions – Construction Phase
(in pounds per day)

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	46.6	4.52	27.8	0.01	0.22	0.41	0.63	0.21	0.06	0.27
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	4.20	0.18	2.43	< 0.005	0.01	0.01	0.01	< 0.005	< 0.005	0.01
Annual (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	0.77	0.03	0.44	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

Figure 2-2
Average Daily GHG Emissions – Construction Phase
(in pounds/day)

CO2T	CH4	N2O	CO2e
—	—	—	—
2,676	206	0.03	7,832
—	—	—	—
2,629	206	0.03	7,784
—	—	—	—
2,639	206	0.03	7,795

2.2 Operational Emissions

Operational emissions can be divided into two categories:

1. Emissions from vehicles and mobile sources (cars/trucks)

2. Emissions from area sources (energy consumption, water, wastewater and solid waste)

Vehicular Emissions

Operating emissions consist of truck and light duty vehicle exhaust emissions and any fugitive road dust from vehicle travel on paved roads. EPS reviewed the expected daily volume as analyzed in the October 18, 2022 traffic study completed by K. D. Anderson, Inc. Excerpts of the traffic report is provided as Attachment 2. The traffic analysis concluded that the project would generate 55 trips per day. The breakdown is as follows:

Figure 2-3
Estimate of Daily Vehicle Trips

	Trucks	Cars
Daily Volume	18	37

EPS used these vehicle trips plus default data on trip length to calculate daily and annual emission rates. The default trips lengths appear in the CalEEMod Users Manual, Appendix G, Table G-18 for Traffic Analysis Zone (TAZ) 306. For this area, the trip length varies between 3.4 to 8.9 miles per trip. EPS used a conservative value of 11 miles per trip length. That yields 219,000 annual vehicle miles travelled.

2.2 Area Source Emissions

Area sources emissions are associated with space heating solid waste disposal, wastewater discharge, lighting, etc. As with vehicle trip length, EPS used default values in Appendix G to estimate annual use and estimate of electricity, water, waste generation and wastewater. This information appears in the following tables:

Table G-28 Annual energy use by land use

Table G-31 Annual indoor water consumption by land use

Table G-36 Annual waste disposal rate by land use

A summary of operational emissions is summarized in Figure 2-4.

Figure 2-4
Summary of Operational Emissions
(Thresholds are Nor Shown)
(in pounds per day)

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	0.29	0.35	2.65	0.01	0.01	0.17	0.18	0.01	0.03	0.04
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	0.26	0.41	2.20	0.01	0.01	0.17	0.18	0.01	0.03	0.04
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	0.26	0.38	2.18	0.01	0.01	0.17	0.18	0.01	0.03	0.04
Annual (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	0.05	0.07	0.40	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01

SECTION 3: SIGNIFICANCE OF PROJECT IMPACTS

The emissions presented in Section 2 for criteria air pollutants are compared with mass emission thresholds established by the FRAQMD and Sutter County.

3.1 Significance Criteria

The significance criteria are summarized below.

FRAQMD MASS EMISSIONS THRESHOLDS OF SIGNIFICANCE

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

NOTES:

a NO_x and ROG construction emissions may be averaged over the life of the project, but may not exceed 4.5 tpy. 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*. June 7, 2020. Available at https://www.fraqmd.org/files/658e76309/Chapter+3.pdf. Accessed September 2, 2020.

In addition, Sutter County has established GHG pre-screening tables to simplify the determination of GHG impacts. See below.

1500-03-110 Transportation, Communication, and Utilities Use Types

A. Aerial Services	1. Airports and Landing Strips 2. Heliports	Pre-Screened Out
B. Community Facilities and Services	1. Community Facilities and Services, Major 2. Community Facilities and Services, Intensive	Analyze Using CAP(Both Land Use Types)
C. Intermodal Transportation Services		Analyze Using CAP
D. Parking Facilities		Pre-Screened Out

As shown in this table, parking facilities, such as the current project, are pre-screened out.

For toxic air, the significance criteria are follows:

Cancer Risk: Maximum 10 cancers/million

Non-Cancer Hazard Index: Maximum 1.0

3.2 Project Impacts (Construction Emissions)

The project's short-term operating emissions and a comparison with the significance thresholds are summarized in Table 3-1.

Table 3-1
Comparison of Average Daily Construction Emissions with Thresholds of Significance

Pollutant	Emissions (lbs/day)	Threshold of Significance	Impact Significant?
NOx	0.18	25	No
ROG	4.2	25	No
PM-10	0.01	80	No

These results demonstrate that the project would not cause significant impacts during the construction phase.

3.3 Project Impacts (Operational Emissions)

The project's long-term operating emissions and a comparison with the significance thresholds are summarized in Table 3-2.

Table 3-2
Comparison of Average Daily Operational Emissions with Thresholds of Significance

Pollutant	Emissions	Threshold of Significance	Impact Significant?
NOx	0.38	25	No
ROG	0.26	25	No
PM-10	0.18	80	No

These results demonstrate that the project would not cause significant impacts during the operational phase.

3.4 Project Impacts (Health Risks)

For toxic air pollutants (TAC), the main TAC is diesel exhaust particulate matter (DPM) from trucks. DPM is regulated as a carcinogen by the FRAQMD and the California Air Resources Board. The emission rates of exhaust PM-10 are considered a surrogate for DPM. For the current project, annual on-site emission rates of exhaust PM-10 were estimated. On-site emissions occur during truck idling. Truck idle emissions are only 0.084 grams per 8 hour day or 0.0106 grams per hour. For the current analysis, each truck was assumed to idle 15 minutes[1]. For all 18 trucks, this equates to 270 minutes (4.5 hours) of idle time per day or 1,642.5 hours of idle per year.

Annual emissions of DPM are estimated as follows:

$$\text{Annual Emissions} = \frac{1{,}642.5 \text{ hrs/yr} \times 0.0106 \text{ grams/hr}}{454 \text{ grams/lb}} = 0.038 \text{ lbs/yr}$$

Given the very low level of DPM emissions, a detailed health risk assessment is not warranted. Therefore, a screening level risk analysis was completed. A screening level risk analysis provides a conservative estimate of potential health risks. A "cancer risk score" is calculated for various distances from the project site. If the cancer risk score is above 10 at the nearest home, then the risk is considered significant and then a more detailed health risks analysis is prepared.

The results of the screening level risk analysis are shown in Table 3-3. The cancer risk score is given for various distances (in meters). For example, the score is 8.78E-02 (0.0878) for distances between 0 to 100 meters. For distances greater than 100 meters, the risk score is 2.19E-02 (0.0219) or lower. These results indicate that exposure to DPM would not result in a significant impact to public health.

[1] Idle time per truck was conservatively estimated to equal 15 minutes. Current state regulations limit idle time to 15 minutes. Truck idle emissions 0.0844 grams per 8-hour day are based on EMFAC 2021 for CY 2022.

Table 3-3

Results of Screening Level Risk Analysis

	A	B	C	D	E	F	G	H
1	**Name**	**Prioritization Calculator**						
2	**Applicability**	Use to provide a Prioritization score based on the emission potency method. Entries required in yellow areas, output in gray areas.						
3	*Author or updater*	Ray Kapahi		*Last Update*	May 19, 2023			
4	**Facility:**	Eager Road Truck Trailer Yard						
5	**ID#:**	Yuba City, CA						
6	**Project #:**							
7	**Unit and Process#**							
8	**Operating Hours hr/yr**	8,760.00						
9	Receptor Proximity and Proximity Factors	**Cancer**	**Chronic**	**Acute**		Receptor proximity is in meters. Priortization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.		
10		**Score**	**Score**	**Score**	**Max Score**			
11	**0< R<100 1.000**	8.78E-02	1.30E-04	0.00E+00	8.78E-02			
12	**100≤R<250 0.250**	2.19E-02	3.25E-05	0.00E+00	2.19E-02			
13	**250≤R<500 0.040**	3.51E-03	5.21E-06	0.00E+00	3.51E-03			
14	**500≤R<1000 0.011**	9.66E-04	1.43E-06	0.00E+00	9.66E-04			
15	**1000≤R<1500 0.003**	2.63E-04	3.90E-07	0.00E+00	2.63E-04			
16	**1500≤R<2000 0.002**	1.76E-04	2.60E-07	0.00E+00	1.76E-04			
17	**2000<R 0.001**	8.78E-05	1.30E-07	0.00E+00	8.78E-05			
18		Enter the unit's CAS# of the substances emitted and their amounts.				Prioritzation score for each substance generated below. Totals on last row.		
19	**0**							
20	**Substance**	**CAS#**	**Annual Emissions (lbs/yr)**	**Maximum Hourly (lbs/hr)**	**Average Hourly (lbs/hr)**	**Cancer**	**Chronic**	**Acute**
21	**Diesel engine exhaust, particulate matter (Diesel PM)**	9901	3.80E-02		4.34E-06	8.78E-02	1.30E-04	0.00E+00
22					0.00E+00	0.00E+00	0.00E+00	0.00E+00
23					0.00E+00	0.00E+00	0.00E+00	0.00E+00
24					0.00E+00	0.00E+00	0.00E+00	0.00E+00

SECTION 4: REFERENCES

CalEEMod (2020): California Emissions Estimator Model. Information available at: http://www.caleemod.com/

CAPCOA (2008). CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to CEQA. January 2008.

CARB Title 17 Section 95812 (c)(1).

CCAPCD (2021): Colusa County Air Pollution Control District Rules and Regulations. Available at: https://www.countyofcolusa.org/836/Rules-and-Regulations

EPA (2009) Federal Register 56272-73, October 30, 2009

ATTACHMENTS

Attachment 2

CalEEMod Detailed Emissions Report

Eager Road Truck Yard Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Eager Road Truck Yard
Construction Start Date	10/1/2023
Operational Year	2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.40
Precipitation (days)	1.20
Location	39.18972108706828, -121.63291313394906
County	Sutter
City	Unincorporated
Air District	Feather River AQMD
Air Basin	Sacramento Valley
TAZ	306
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.13

1.2. Land Use Types

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

User Defined Commercial	1,000	User Defined Unit	2.00	2.00	1.00	1.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	46.6	4.52	27.8	0.01	0.22	0.41	0.63	0.21	0.06	0.27	1,014	1,014	0.04	0.01	1,020
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.20	0.18	2.43	< 0.005	0.01	0.01	0.01	< 0.005	< 0.005	0.01	39.1	39.1	< 0.005	< 0.005	39.2
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.77	0.03	0.44	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.47	6.47	< 0.005	< 0.005	6.49

2.2. Construction Emissions by Year, Unmitigated

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

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	NBCO2	CO2T	CH4	N2O	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2023	46.6	4.52	27.8	0.01	0.22	0.41	0.63	0.21	0.06	0.27	1,014	1,014	0.04	0.01	1,020
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	4.20	0.18	2.43	< 0.005	0.01	0.01	0.01	< 0.005	< 0.005	0.01	39.1	39.1	< 0.005	< 0.005	39.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.77	0.03	0.44	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.47	6.47	< 0.005	< 0.005	6.49

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.29	0.35	2.65	0.01	0.01	0.17	0.18	0.01	0.03	0.04	617	2,676	206	0.03	7,832
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.26	0.41	2.20	0.01	0.01	0.17	0.18	0.01	0.03	0.04	570	2,629	206	0.03	7,784
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.26	0.38	2.18	0.01	0.01	0.17	0.18	0.01	0.03	0.04	580	2,639	206	0.03	7,795
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.05	0.07	0.40	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	96.1	437	34.1	0.01	1,290

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	NBCO2	CO2T	CH4	N2O	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.29	0.34	2.64	0.01	0.01	0.17	0.18	0.01	0.03	0.04	576	576	0.02	0.03	587
Area	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Energy	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	41.1	41.1	0.01	< 0.005	41.5
Water	—	—	—	—	—	—	—	—	—	—	0.16	0.34	0.02	< 0.005	0.94
Waste	—	—	—	—	—	—	—	—	—	—	0.00	2,059	206	0.00	7,203
Total	0.29	0.35	2.65	0.01	0.01	0.17	0.18	0.01	0.03	0.04	617	2,676	206	0.03	7,832
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.26	0.40	2.19	0.01	0.01	0.17	0.18	0.01	0.03	0.04	529	529	0.02	0.03	539
Area	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	41.1	41.1	0.01	< 0.005	41.5
Water	—	—	—	—	—	—	—	—	—	—	0.16	0.34	0.02	< 0.005	0.94
Waste	—	—	—	—	—	—	—	—	—	—	0.00	2,059	206	0.00	7,203
Total	0.26	0.41	2.20	0.01	0.01	0.17	0.18	0.01	0.03	0.04	570	2,629	206	0.03	7,784
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.26	0.37	2.17	0.01	0.01	0.17	0.18	0.01	0.03	0.04	539	539	0.02	0.03	549
Area	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Energy	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	41.1	41.1	0.01	< 0.005	41.5
Water	—	—	—	—	—	—	—	—	—	—	0.16	0.34	0.02	< 0.005	0.94
Waste	—	—	—	—	—	—	—	—	—	—	0.00	2,059	206	0.00	7,203
Total	0.26	0.38	2.18	0.01	0.01	0.17	0.18	0.01	0.03	0.04	580	2,639	206	0.03	7,795
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.05	0.07	0.40	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	89.2	89.2	< 0.005	< 0.005	91.0
Area	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

Energy	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.81	6.81	< 0.005	< 0.005	6.86
Water	—	—	—	—	—	—	—	—	—	—	0.03	0.06	< 0.005	< 0.005	0.16
Waste	—	—	—	—	—	—	—	—	—	—	0.00	341	34.1	0.00	1,193
Total	0.05	0.07	0.40	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	96.1	437	34.1	0.01	1,290

3. Construction Emissions Details

3.1. Demolition (2023) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	1.91	2.87	< 0.005	0.09	—	0.09	0.08	—	0.08	436	436	0.02	< 0.005	437
Demolition	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	9.55	9.55	< 0.005	< 0.005	9.58
Demolition	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.58	1.58	< 0.005	< 0.005	1.59
Demolition	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.05	0.47	0.00	0.00	0.08	0.08	0.00	0.02	0.02	79.0	79.0	< 0.005	< 0.005	80.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	17.8	17.8	< 0.005	< 0.005	18.6
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.78	1.78	< 0.005	< 0.005	1.81
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.39	0.39	< 0.005	< 0.005	0.41
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.30	0.30	< 0.005	< 0.005	0.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.06	0.06	< 0.005	< 0.005	0.07

3.3. Site Preparation (2023) - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.64	0.96	< 0.005	0.03	—	0.03	0.03	—	0.03	145	145	0.01	< 0.005	146
Dust From Material Movement	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.99	1.99	< 0.005	< 0.005	2.00
Dust From Material Movement	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.33	0.33	< 0.005	< 0.005	0.33
Dust From Material Movement	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.02	0.16	0.00	0.00	0.03	0.03	0.00	0.01	0.01	26.3	26.3	< 0.005	< 0.005	26.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.37	0.37	< 0.005	< 0.005	0.38
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.06	0.06	< 0.005	< 0.005	0.06
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2023) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	1.88	1.83	< 0.005	0.10	—	0.10	0.09	—	0.09	284	284	0.01	< 0.005	285
Dust From Material Movement	—	—	—	—	—	0.27	0.27	—	0.03	0.03	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.33	2.33	< 0.005	< 0.005	2.34
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.39	0.39	< 0.005	< 0.005	0.39
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.02	0.16	0.00	0.00	0.03	0.03	0.00	0.01	0.01	26.3	26.3	< 0.005	< 0.005	26.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.22	0.22	< 0.005	< 0.005	0.23
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	0.04
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2023) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	46.3	1.07	25.5	< 0.005	0.02	—	0.02	0.01	—	0.01	216	216	< 0.005	< 0.005	216
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.19	0.10	2.31	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	19.5	19.5	< 0.005	< 0.005	19.5
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	0.02	0.42	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.23	3.23	< 0.005	< 0.005	3.23
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Paving (2023) - Unmitigated

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

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

Off-Road Equipment	0.18	1.57	1.97	< 0.005	0.08	—	0.08	0.07	—	0.07	295	295	0.01	< 0.005	296
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.42	2.42	< 0.005	< 0.005	2.43
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.40	0.40	< 0.005	< 0.005	0.40
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.32	0.00	0.00	0.05	0.05	0.00	0.01	0.01	52.7	52.7	< 0.005	< 0.005	53.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.45	0.45	< 0.005	< 0.005	0.45
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.07	0.07	< 0.005	< 0.005	0.07
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (2023) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coatings	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Commercial	—	—	—	—	—	—	—	—	—	—	27.9	27.9	< 0.005	< 0.005	28.1
Total	—	—	—	—	—	—	—	—	—	—	27.9	27.9	< 0.005	< 0.005	28.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Commercial	—	—	—	—	—	—	—	—	—	—	27.9	27.9	< 0.005	< 0.005	28.1
Total	—	—	—	—	—	—	—	—	—	—	27.9	27.9	< 0.005	< 0.005	28.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Commercial	—	—	—	—	—	—	—	—	—	—	4.61	4.61	< 0.005	< 0.005	4.66
Total	—	—	—	—	—	—	—	—	—	—	4.61	4.61	< 0.005	< 0.005	4.66

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Commercial	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	13.3	13.3	< 0.005	< 0.005	13.3
Total	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	13.3	13.3	< 0.005	< 0.005	13.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Commercial	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	13.3	13.3	< 0.005	< 0.005	13.3
Total	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	13.3	13.3	< 0.005	< 0.005	13.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Commercial	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.20	2.20	< 0.005	< 0.005	2.21
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.20	2.20	< 0.005	< 0.005	2.21

4.3. Area Emissions by Source

4.3.2. Unmitigated

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

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

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

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

User Defined Commercial	—	—	—	—	—	—	—	—	—	—	0.16	0.34	0.02	< 0.005	0.94
Total	—	—	—	—	—	—	—	—	—	—	0.16	0.34	0.02	< 0.005	0.94
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Commercial	—	—	—	—	—	—	—	—	—	—	0.16	0.34	0.02	< 0.005	0.94
Total	—	—	—	—	—	—	—	—	—	—	0.16	0.34	0.02	< 0.005	0.94
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Commercial	—	—	—	—	—	—	—	—	—	—	0.03	0.06	< 0.005	< 0.005	0.16
Total	—	—	—	—	—	—	—	—	—	—	0.03	0.06	< 0.005	< 0.005	0.16

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Commercial	—	—	—	—	—	—	—	—	—	—	0.00	2,059	206	0.00	7,203
Total	—	—	—	—	—	—	—	—	—	—	0.00	2,059	206	0.00	7,203
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

User Defined Commercial	—	—	—	—	—	—	—	—	—	—	0.00	2,059	206	0.00	7,203
Total	—	—	—	—	—	—	—	—	—	—	0.00	2,059	206	0.00	7,203
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Commercial	—	—	—	—	—	—	—	—	—	—	0.00	341	34.1	0.00	1,193
Total	—	—	—	—	—	—	—	—	—	—	0.00	341	34.1	0.00	1,193

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

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

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	10/1/2023	10/15/2023	4.00	8.00	—
Site Preparation	Site Preparation	10/15/2023	10/23/2023	4.00	5.00	—
Grading	Grading	10/15/2023	10/31/2023	1.00	3.00	—

Building Construction	Building Construction	11/1/2023	12/15/2023	5.00	33.0	—
Paving	Paving	12/15/2023	12/19/2023	5.00	3.00	—
Architectural Coating	Architectural Coating	12/15/2023	12/18/2023	5.00	2.00	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	3.00	4.00	84.0	0.37
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	4.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	4.00	148	0.41
Building Construction	Forklifts	CNG	Average	1.00	6.00	70.0	0.30
Building Construction	Generator Sets	Gasoline	Average	1.00	4.00	11.0	0.68
Building Construction	Welders	Electric	Average	3.00	1.00	46.0	0.45
Paving	Paving Equipment	Diesel	Average	1.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	4.00	36.0	0.38
Architectural Coating	Air Compressors	Electric	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	7.50	14.3	LDA,LDT1,LDT2
Demolition	Vendor	—	8.80	HHDT,MHDT
Demolition	Hauling	0.25	20.0	HHDT

Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	2.50	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	2.50	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	< 0.005	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	< 0.005	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	5.00	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	< 0.005	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	3.00	1.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	5.00	—
Site Preparation	—	—	0.00	0.00	—
Grading	—	—	0.75	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Commercial	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	126	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	55.0	55.0	55.0	20,075	600	600	600	219,000

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	3.00	1.00	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
User Defined Commercial	49,839	204	0.0330	0.0040	41,459

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
User Defined Commercial	94,081	30.0

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
User Defined Commercial	3,820	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

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

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	30.0	annual days of extreme heat
Extreme Precipitation	4.65	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	5	0	0	N/A
Extreme Precipitation	1	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

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

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	5	1	1	4
Extreme Precipitation	1	1	1	2
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

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

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	52.1
AQ-PM	39.3
AQ-DPM	47.6
Drinking Water	66.3
Lead Risk Housing	12.6
Pesticides	96.9
Toxic Releases	5.11
Traffic	16.6
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	37.6
Haz Waste Facilities/Generators	65.9
Impaired Water Bodies	72.2
Solid Waste	2.52
Sensitive Population	—
Asthma	24.3
Cardio-vascular	80.0
Low Birth Weights	21.8
Socioeconomic Factor Indicators	—
Education	46.8
Housing	4.25
Linguistic	24.8
Poverty	33.8

Unemployment	67.5

7.2. Healthy Places Index Scores

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

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	65.93096369
Employed	60.23354292
Median HI	64.41678429
Education	—
Bachelor's or higher	51.84139612
High school enrollment	100
Preschool enrollment	63.67252663
Transportation	—
Auto Access	47.37585012
Active commuting	16.12986013
Social	—
2-parent households	69.80623637
Voting	84.16527653
Neighborhood	—
Alcohol availability	61.19594508
Park access	31.06634159
Retail density	13.71743873
Supermarket access	45.95149493
Tree canopy	67.34248685
Housing	—
Homeownership	80.70062877

Housing habitability	95.12382908
Low-inc homeowner severe housing cost burden	97.18978571
Low-inc renter severe housing cost burden	89.45207237
Uncrowded housing	87.19363531
Health Outcomes	—
Insured adults	70.40934172
Arthritis	0.0
Asthma ER Admissions	84.2
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	28.7
Cognitively Disabled	21.0
Physically Disabled	13.7
Heart Attack ER Admissions	24.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	73.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0

No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	72.4
Elderly	6.6
English Speaking	76.5
Foreign-born	15.1
Outdoor Workers	55.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	57.3
Traffic Density	7.7
Traffic Access	0.0
Other Indices	—
Hardship	37.9
Other Decision Support	—
2016 Voting	76.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	36.0
Healthy Places Index Score for Project Location (b)	67.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per Site Plan
Construction: Construction Phases	Per project description
Construction: Off-Road Equipment	Per project specifications
Operations: Energy Use	Based on Energy Use for EDFZ 4 for Auto Repair Facilities Appendix G Table G-28 Note: The facility will use on-site propane as natural gas is unavailable at this location.
Operations: Water and Waste Water	Based on Default Table G-31 for 1,000 sq ft auto repair shop Facility will have it's own well. City or County water supply is not available at the project site.
Operations: Solid Waste	Per CalEEMod Version 2022.1.1 G Table G-36 Statewide Disposal Rate for Auto Repair Shops

CEQA TRANSPORTATION IMPACT ANALYSIS AND TRAFFIC OPERATIONAL ASSESSMENT

FOR

MOON TRUCK AND TRAILER PARKING AND REPAIR FACILITIES AT 1166 EAGER ROAD

Sutter County, California

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CEQA TRANSPORTATION IMPACT ANALYSIS AND TRAFFIC OPERATIONAL ASSESSMENT FOR MOON TRUCK AND TRAILER PARKING AND REPAIR FACILITIES AT 1166 EAGER ROAD
Sutter County, California

TABLE OF CONTENTS

KDA

CEQA TRANSPORTATION IMPACT ANALYSIS AND TRAFFIC OPERATIONAL ASSESSMENT FOR MOON TRUCK AND TRAILER PARKING AND REPAIR FACILITIES AT 1166 EAGER ROAD

Sutter County, California

INTRODUCTION

This report addresses the CEQA transportation impacts and traffic operational effects of a Truck Parking and Repair Facility proposed at 1166 Eager Road in Sutter County, CA. The project would provide 24 truck parking spaces and a truck service shop on about 2½ acres located on the south side of Eager Road between the E. Onstott Frontage Road and Live Oak Blvd. Figure 1 locates the project, and Figure 2 is the project site plan.

The analysis which follows addresses specific questions from Sutter County following their review of the three projects that are addressed in a CEQA Transportation Impact analysis and a focused Traffic Analysis Report (TAR). These questions include:

1. What types of trucks will be using the site, and if STAA trucks are anticipated, is the route to and from SR 99 legally adequate for these vehicles?
2. What are the effects of the project on the local street system, and are improvements to the site access beyond those proposed with the project needed?
3. What are the cumulative effects of the project and other similar projects in this area or Sutter County?
4. Do the project's effects comply with Sutter County General Plan policies and zoning code requirements for access improvements?
5. What are the impacts of the project under the California Environmental Quality Act (CEQA) on regional Vehicle Miles Traveled (VMT)?

BACKGROUND INFORMATION

Existing Facilities / Background Traffic Operating Conditions

The text which follows describes the circulation system in the area of these projects.

State Route 99 (SR 99). SR 99 is a major regional route that traverses the state of Californian from an interchange on Interstate 5 near Bakersfield north to Tehama County. SR 99 is generally a four-lane conventional highway in Sutter County except for the segment north of State Route 20 in Yuba City that is a controlled access freeway for about 5½ miles to an intersection on Live Oak Blvd north of the project site. Project access at the Eager Road / SR 99 junction is provided at grade separated interchange. The most recent traffic volume counts available from the California Department of Transportation (Caltrans) indicate that in 2019 SR 99 carried an Average Annual Daily Traffic (AADT) volume of 18,800 vehicles per day south of Eager Road and 19,100 AADT to the north. Trucks comprise about 9% of the daily volume, and SR 99 is designated an STAA truck route. The posted speed limit is 65 mph.

Eager Road. Eager Road is a Rural Major Collector that extends west from an intersection on Live Oak Blvd across SR 99 for about 1½ miles to Terra Buena Road. The portion of Eager Road between the SR 99 NB ramps and Live Oak Blvd is about 600 feet long and is a two-lane facility with 12-foot travel lanes and limited shoulders. Within that area the East Onstott Frontage Road intersects Eager Road about 180 feet east of the ramps. The rural prima facie 55 mph speed limit applies. Eager Road is not designated an STAA route. The daily traffic volume on Eager Road east of SR 99 is estimated to be 4,650 vehicles per day based on interpolation of new peak hour counts at the SR 99 interchange's intersections.

Today Eager Road is not designated an STAA terminal route. Preliminary review of the layout of the SR 99 interchange's intersections indicates that at the SB off ramp STAA trucks may leave the pavement, either by the inside wheels or the outside wheels. The STAA truck can complete the turn with the outside wheel track, but the swept path could cross the shoulder, which may be unacceptable to Caltrans. Two signs would appear to require relocation as they could be in the path of an STAA vehicle. The westbound to southbound loop on-ramp movement can be completed without the truck leaving the roadway. Roadway pavement widening or confirmation that adequate structural section is available in the paved shoulder may be needed, and an engineered truck turning analysis clearly identifying the limits of truck turns and confirming improvements will be needed.

At the Northbound SR 99 on and off-ramps the northbound to eastbound movement can be completed with the vehicle wheel tracks remaining on the pavement; the swept path will also remain within the travel way or on the shoulder. The westbound to northbound direct on-ramp movement can be completed without the truck leaving the roadway. No improvements are likely to be needed.

A formal application to designate the portion of the road from SR 99 to the project site would be required, and supporting information confirming the adequacy of the interchange and the project site access would be needed.

SR 99 / Eager Road interchange. This grade separated interchange is configured as a partial cloverleaf with direct connecting on-ramps in both directions and off-ramp control by stop signs. The SB and NB off-ramps extend for 1,500 feet to the gore point on mainline SR 99. Caltrans also publishes traffic count data for interchange ramps, and current daily traffic volumes are noted in Table 1. As indicated, the volumes on these ramps are relatively low (i.e., <600 vehicles per day).

TABLE 1
DAILY VOLUMES ON SR 99 – EAGER ROAD INTERCHANGE RAMPS

Direction	Ramp	Annual Average Daily Traffic (AADT)		
		2011	2014	2017
NB	Off to Eager Road	680	440	561
	On from WB Eager Road	220	700	511
	On from EB Eager Road	680	160	421
SB	Off to Eager Road	310	310	311
	On from EB Eager Road	350	310	331
	On from WB Eager Road	370	160	451

Eager Road / E. Onstott Frontage Road Intersection. This intersection on Eager Road just east of the NB ramps is controlled by stop signs on the northbound and southbound frontage road approaches. There are no separate left turn lanes on Eager Road at this location. No crosswalks exist, but the intersection is illuminated.

Peak Hour Traffic Volumes / Operations. New a.m. (i.e., 7:00 to 9:00 am) and p.m. (i.e., 4:00 to 6:00 pm) peak hour traffic counts were made at the two ramp intersections on August 23, 2022. The highest hourly volumes within each period are presented in Figure 3. Traffic observers reported that most of the traffic on eastbound Eager Road continued to Live Oak Blvd, but the effects of traffic turning onto the E. Frontage Road is reflected in the volumes at the proposed site access.

Current traffic counts were used to identify the operating Level of Service at the SR 99 ramps intersections based on the methodologies contained in the Highway Capacity Manual, 6th Edition and to determine whether traffic signals may already be warranted. As noted in the attached worksheets, motorist waiting on the off-ramps experience delays that are indicative of LOS B during a.m. and p.m. peak hours. The traffic volumes occurring at those times do not reach the level that satisfy peak hour warrant requirements presented in the Manual of Uniform Traffic Control Devices.

Regulations / Standards

State of California

California Environmental Quality Act (CEQA) - SB 743. With the adoption and 2020 implementation of SB 743, CEQA analysis of transportation impacts has moved from analysis of motorist delay based on Level of Service to consideration of a project's contribution to global climate change as expressed in terms of Vehicle Miles Traveled (VMT). While capacity analysis and Level of Service can still be considered by local agencies in addressing General Plan consistency, Level of Service is no longer a CEQA topic.

State of California Department of Transportation (Caltrans). Caltrans has jurisdiction over state highways. Caltrans' policy documents and analysis guidelines provide direction for transportation impact analysis.

Highway Design Manual, 7th Edition (HDM). The HDM establishes uniform policies and procedures to carry out the state highway design functions of the California Department of Transportation. The HDM establishes uniform policies and procedures to carry out the state highway design functions of the Department. It is neither intended as, nor does it establish, a legal standard for these functions. The standards, procedures, and requirements established and discussed herein are for the information and guidance of the officers and employees of the Department. Many of the instructions given herein are subject to amendment as conditions and experience warrant. Special situations may call for deviation from policies and procedures, subject to Division of Design approval, or such other approval as may be specifically provided for in the text of the HDM.

Truck Turning Requirements. Large trucks (53-foot trailers) are allowed on mainline SR 99 under the Surface Transportation Assistance Act (STAA), but such vehicles are not permitted on intersecting Sutter County roads unless specifically designated for their use by Caltrans and the local agency (i.e., Sutter County) through evaluation of truck turning requirements. Private access anticipating trucks of this classification, as is typically the case for long haul operations, must also have access that can accommodate those vehicles.

Sutter County General Plan Mobility Element. These policies of the Sutter County General Plan address the issues associated with the project.

M 2.4 Intersection and Driveway Spacing. Maximize intersection and driveway spacing on roadways. Driveway encroachments shall be minimized in accordance with the County's improvement standards. (M 2-B)

M 2.5 Level of Service on County Roads. Develop and manage the County roadway segments and intersections to maintain LOS D or better during peak hour, 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. (M 2-C/M 2-D)

M 2.6 Mitigation by New Development. Require new development projects to analyze their local traffic impacts and to construct and implement the improvements necessary to fully mitigate their local impacts to traffic capacity, structural sections, and intersection geometrics. (M 2-E)

M 2.7 Regional Improvements. Require new development projects to analyze traffic impacts on the regional transportation system (i.e., facilities that provide regional connectivity to the new development) and require a fair share contribution to regional transportation improvements. (M 2-F)

The General Plan includes roadway segment LOS thresholds based on daily volumes, as noted in Table 2. The "rural road" thresholds are applicable to Eager Road.

TABLE 2
SUTTER COUNTY GENERAL PLAN
ROADWAY LEVELS OF SERVICE THRESHOLDS

Roadway	LOS C	LOS D	LOS E
Rural – Two-Lane	7,000 – 10,600	10,600 – 16,300	16,400 – 25,200
Urban – Three Lane	15,330 – 17,520	17,250 – 19,700	19,700 – 21,900
Urban – Five Lane	30,660 – 35,040	35,040 – 39,420	39,420 – 43,800
Expressway – Four Lane	29,100 – 41,800	41,801 – 53,500	53,501 – 59,500
Freeway – Four Lane	33,700 – 48,400	48,401 – 60,000	60,001 – 67,400
Freeway – Six Lane	51,800 – 73,900	73,901 – 90,900	90,901 – 101,800
Source: Sutter County General Plan DEIR – Traffic Table 6.14.6			

Sutter County Zoning Code. The project falls under Zoning Category 3. General Truck Yards, Large. Section 1500-05-030 E. 3. e., deals with facility access and traffic study requirements.

3. General Truck Yards, Large

a. In addition to other noticing requirements, upon receipt of an application for a new or modified General Truck Yard, Large, notice shall be provided to all property owners of record, within one-half (1/2) mile of the proposed project property boundaries advising an application has been received, providing a summary of the application and the location where project documents can be reviewed.

b. General Truck Yards, Large, shall comply with the applicable requirements of Table 1500 07-3 (Commercial and Employment Design Checklist).

c. General Truck Yards, Large, may only be established in the Agriculture District when located immediately adjacent to a State Highway or a designated T or S-route (STAA).

d. Lighting shall be provided consistent with Table 1500-07-3 (Commercial and Employment Design Checklist). Light pole and fixture height shall not exceed twenty-five (25) feet. Truck parking areas shall incorporate motion activated lighting that shall not spill onto adjoining properties. A photometric plan, prepared by an appropriately licensed design professional, shall be submitted at the time of application demonstrating compliance with this requirement.

e. Facility access shall incorporate acceleration and deceleration lanes, the criteria for which is determined by completion of a traffic study prepared to recognized engineering standards, including County Improvement Standards that shall also determine any additional needed traffic related improvements. No vehicle shall be permitted to obstruct or back onto a public roadway. Facilities shall be designed so that trucks entering and exiting yards are not required to cross the road center line into opposing traffic. The traffic study shall be submitted at the time application is made to the Development Services Planning Division for the proposed use.

f. Facilities located along a State Highway shall comply with the California Department of Transportation standards for roads, freeway entrances, sight distance and turning radius.

g. Driveways shall be a minimum of forty (40) feet in width measured at the public right-of way or as deemed necessary by the Road Commissioner. Driveways shall be designed to allow trucks to enter and exit a facility without entering into opposing lanes of traffic.

h. When proposed, access gates shall be setback a minimum of sixty-five (65) feet, or a sufficient distance, from the public right-of-way to allow trucks with trailers to completely exit the roadway when gates are closed.

i.All maneuvering and parking areas for automobiles, trucks and trailers shall be located onsite and shall be paved and maintained consistent with Article 20. No parking or maneuvering for parking shall occur in a public road right-of-way. Wheel stops shall be provided for both automobile and truck parking areas to protect fencing, landscaping, structures and adjacent properties. The County may require operators to re-surface deteriorated asphalt areas and such work shall be completed within 180-days of the County making a request or by a mutually agreed time as approved by the Director. At his or her discretion, the Director may require the installation of wheel washing facilities or other measures necessary to eliminate impacts to the County road system.

j. 1. When located outside a designated floodplain, permanent bathroom facilities (not portable toilets) shall be established onsite and shall be accessible during hours of operation and shall not be visible from the public right of way. Bathroom facilities shall include, at a minimum, a flushing toilet and a handwashing station and shall be serviced, as needed, on a regular basis. Bathrooms shall be provided at a minimum ratio of one (1) restroom per twenty-five (25) trucks or as otherwise determined by the Director."

2. When located in a designated floodplain, portable trailer mounted bathroom facilities may be established onsite and shall be accessible during hours of operation and shall not be visible from the public right of way. Bathroom facilities shall include, at a minimum, a toilet and handwashing station. Facilities shall be serviced, as needed, on a regular basis. The County may require an operator to document through a contract, or other means deemed sufficient, that bathroom facilities are being properly maintained. Bathrooms shall be provided at a minimum ratio of one (1) restroom per twenty-five (25) trucks or as otherwise determined by the Director.

k. The minimum usable sewage disposal area shall be barricaded or have access physically restricted to prevent vehicles from driving or parking over it.

l. A drainage plan, consistent with the County Improvement Standards, shall be submitted at the time application is made, demonstrating runoff resulting from site development will not adversely impact surrounding property owners, or public rights-of-way. Drainage from parking areas shall utilize best available technology to minimize pollution and shall comply with State law.

m. Materials including truck parts, tires and related items, shall be contained inside a building, and in accordance with applicable State law. If a General Truck Yard, Large, proposes to conduct onsite repairs, such work shall occur within a building approved for said work. This requirement shall not apply to windshield, wiper, or truck headlight replacement work. A maximum of two inoperable trucks may be

kept onsite for rebuilding or parts and shall be contained in a designated area, surfaced with concrete and designed to contain spilled fluids, and shall be located so as not to be visible from a public right of way or neighboring properties.

n. Truck and/or trailer maintenance, repair, and proper handling and disposal of hazardous materials shall comply with the requirements of the Development Services Department and applicable State law.

o. Facilities shall be screened from public view, roadways and adjoining, non-employment zoned, land through concrete masonry unit walls or chain-link fencing with privacy slats, having a minimum privacy rating of 90 percent or greater, and landscaping. All walls, fencing and landscaping shall be continuously maintained, and the Director may require replacement to damaged items.

p. Fifty-five (55) gallon trash waste receptacles, or equivalent, shall be provided at a minimum ratio of one (1) receptacle per five (5) trucks and shall be conveniently located in the truck/trailer parking area to facilitate their use. The County may allow other means of trash collection and control as appropriate.

q. Truck engine idling shall occur consistent with State law and com compliance with this requirement shall be included as a project condition.

r. The operation of Transportation refrigeration units shall occur consistent with California Code of Regulations, Title 13, Division 3, Chapter 9, Article 8 commencing at Section 2477 or as amended.

s. At the time application is made, a plan shall be submitted demonstrating how undeveloped areas shall be maintained to prevent the creation of dust, erosion and shall not become a health hazard or create a public nuisance.

t. The County will consider as part of its review, indirect sources of traffic, noise and pollution, such as service trucks and passenger vehicles visiting facilities.

u. The County will consider requiring permanent onsite landscape setback buffers from existing adjacent residences, to be maintained by the property owner, to the extent feasible, for new or expanded facilities.

DESCRIPTION OF PROPOSED PROJECT

The project consists of:

- 24 spaces for truck / trailer parking
- 26 automobile parking spaces
- 4,800 sf truck service shop building

The project proponent anticipates up to 5 on-site employees, including a security guard.

Project Travel Characteristics

Type of Trucking Operation. The operational characteristics of the project have been identified in terms of the amount of truck and automobile activity and the time periods of that travel. Typically, trucking operations fall into two categories: "Long haul" or "Local Distribution or Agricultural Harvesting / Processing Support." For long haul trucks the typical routine sends drivers away from the site for extended periods of time. On a typical weeklong haul, most trucks return to the site on Friday and leave early Sunday or Monday, and most drivers try to operate outside peak traffic hours. Trips to the east coast can take longer. During the week some trucks may come and go for inspection or maintenance or if the drivers have to come home during the week. Alternatively, local based trucking typically leaves the site each weekday and returns that afternoon /evening. In both cases, a driver would travel by automobile to and from the site before beginning or ending his trips. Some of the truck drivers would park their personal auto at the site and others would be dropped off.

Trip Generation. This project's trip generation was estimated based on available resources and our understanding of the characteristics of these uses. The project proponent has indicated that this site will be used by long haul truckers operating on the west coast.

Long haul truck trip generation rates were developed from 24-hr truck traffic counts at a large (440 spaces) truck parking area in Yuba City. That site generated 334 total truck trips (143 in and 191 out) on a Thursday, or 7.6 daily truck trips per 10 spaces. It was assumed that drivers would generate automobile trips at the same time that trucks entered and exited and that ½ of the drivers would be dropped off / picked up.

Assuming the trucks at each site are all long haul the project's trucking activities result in the daily and peak hour trip generation forecasts presented in the Table 3. In addition, employee traffic will occur, and this analysis assumes that ½ of these employees enter or depart during peak hours. As shown, all together, the project could generate 18 daily truck trips (i.e., ½ inbound and ½ outbound), and each day 37 automobile trips would also be expected, for a total of 55 daily trips by vehicles of all types.

TABLE 3
PROJECT TRIP GENERATION ESTIMATE

Unit	Unit	Quantity	Trucks			Automobiles			Total		
			In	Out	Total	In	Out	Total	In	Out	Total
AM Peak Hour											
Long Haul	10 spaces	1	8%	92%	0.55	64%	36%	0.82	42%	58%	1.36
Proposed	24 spaces	2.4	0	2	2	1	1	2	1	3	4
Employees	person	1	-	-	-	100%	0%	0.50	100%	0%	0.50
Proposed	5 persons	5	0	0	0	3	0	3	3	0	32
Total			***0***	***2***	***2***	***4***	***1***	***5***	***4***	***3***	***7***
PM Peak Hour											
Long Haul	10 spaces	1	71%	29%	0.55	43%	57%	0.82	54%	46%	1.36
Proposed	24 spaces	2.4	2	0	2	1	1	2	3	1	4
Employees	person	1	-	-	-	0%	100%	0.50	0%	100%	0.50
Proposed	5 persons	5	0	0	0	0	3	3	0	3	3
Total			***2***	***0***	***2***	***1***	***4***	***5***	***3***	***4***	***7***
Daily											
Long Haul	10 spaces	1	43%	57%	7.64	43%	57%	11.45	43%	57%	19.10
Proposed	24 spaces	2.4	8	10	18	12	15	27	20	25	45
Employees	1 person	1	-	-	-	50%	50%	2.00	50%	50%	2.00
Proposed	5 persons	5	0	0	0	5	5	10	5	5	10
Total			***8***	***10***	***18***	***17***	***20***	***37***	***25***	***30***	***55***

Trip Distribution. Long haul trucks in this area typically follow routes along I-5 or SR 99 to and from regional distribution centers or warehouses primarily in the Sacramento metropolitan area. This analysis assumes that truck traffic is oriented to the south (90%) and north (10%) on SR 99.

Automobile trips would generally be made between truck parking and the residences of drivers and employees. In this case, the distribution of these trips would be based on the distribution of residences in the Sutter County / Yuba County area. Based on the project location, we would expect that 80% will likely reside in Sutter County and 20% will reside in Yuba County. As a result, most automobile traffic (70%) will arrive likely from the south, with lesser amounts from the North (15%) and from Live Oak Blvd (15%). Under these assumptions the project would add no more than 3 vehicles to any ramp during peak hours.

PROJECT TRANSPORTATION IMPACTS UNDER CEQA

The purpose of this analysis is to identify potential transportation impacts under the requirements of the California Environmental Quality Act (CEQA) as well as traffic operational effects as they relate to the introduction of project automobile and truck traffic on state highways. CEQA impacts relating to Vehicle Miles Traveled (VMT) with regular operation of the project has been discussed within the context of screening criteria presented in Governors' Office of Planning and Research (OPR) CEQA guidance. A traffic operations analysis was also conducted to identify the project's effects on state highway safety and with regards to Sutter County General Plan policies.

Vehicle Miles Traveled (VMT) Impact

SB 743 requires the Governor's Office of Planning and Research (OPR) to identify new metrics for identifying and mitigating transportation impacts within CEQA. For land use projects, OPR identified Vehicle Miles Traveled (VMT) per capita, VMT per employee, and net VMT as new metrics for transportation analysis. The CEQA Guidelines state that lead agencies, such as Sutter County, may establish "thresholds of significance" to assist with the determination of significant impacts of a project. The CEQA Guidelines generally state that projects that decrease VMT can be assumed to have a less than significant transportation impact. The CEQA Guidelines do not provide any specific criteria on how to determine what level of project VMT would be considered a significant impact.

The extent to which VMT analysis is applicable to this project has been considered from several perspectives and is discussed in the materials which follow:

Vehicle Types. OPR guidance notes that CEQA VMT analysis is intended to focus on passenger vehicles.

Proposed Section 15064,3, subdivision (a), states, "For the purposes of this section, 'vehicle miles traveled' refers to the amount and distance of automobile travel attributable to a project." Here, the term "automobile" refers to on-road passenger vehicles, specifically cars and light trucks.

OPR guidance allows Heavy-duty truck VMT to be included for modeling convenience and ease of calculation (for example, where models or data provide combined auto and heavy truck VMT).

Methods and Significance Criteria. The OPR *Technical Advisory* provides general direction regarding the methods to be employed and significance criteria to evaluate VMT impacts, absent policies adopted by local agencies. The directive addresses several aspects of VMT impact analysis, and is organized as follows:

- ***Screening Criteria***: Screening criteria are intended to quickly identify when a project should be expected to cause a less-than-significant VMT impact without conducting a detailed study.
- ***Significance Thresholds***: Significance thresholds define what constitutes an acceptable level of VMT effect and what could be considered a significant level of VMT effect requiring mitigation.

- ***Analysis Methodology***: These are the potential procedures and tools for producing VMT forecasts to use in the VMT impact assessment.
- ***Mitigation***: Projects that are found to have a significant VMT impact based on the adopted significance thresholds are required to implement mitigation measures to reduce impacts to a less than significant level (or to the extent feasible).

Screening Criteria. Screening criteria can be used to quickly identify whether sufficient evidence exists to presume a project will have a less than significant VMT impact without conducting a detailed study. However, each project should be evaluated against the evidence supporting that screening criteria to determine if it applies. Under OPR guidance projects meeting at least one of the criteria below can be presumed to have a less than significant VMT impact, absent substantial evidence that the project will lead to a significant impact.

- ***Small Projects***: Defined as a project that generates 110 or fewer average daily vehicle trips.
- ***Affordable Housing***: Defined as a project consisting of deed-restricted affordable housing.
- ***Local Serving Retail***: Defined as retail uses of 50,000 square feet or less can be presumed to have a less than significant impact.
- ***Proximity to High Quality Transit***: The directive notes that employment and residential development located within ½ mile of a high-quality transit corridor offering 15 minute headways can be presumed to have a less than significant impact.

Screenline Evaluation. The extent to which the VMT impacts of the project can he presumed to be less than significant has been determined based on review of the OPR directive's screening criteria and general guidance.

The OPR ***Small Project*** criteria is applicable to this project. The regular operation of the 1166 Eager Road Truck parking facility with 24 spaces is projected to result in 37 daily automobile trips. As the 110 ADT threshold for automobiles is not exceeded, that project's VMT impacts can be presumed to be less than significant.

The project cannot be addressed by other screen line criteria identified by OPR. The project is not an ***Affordable Housing*** development or ***Locally Serving Retail*** use.

Impacts to Other Transportation Modes

Pedestrian Facilities. There are few developed areas around the project to create pedestrian travel to and from the site. Any pedestrians would use the roadway shoulder or edge of pavement, as would be the case for any current pedestrians. As the number of additional vehicle trips caused by the project is low and few if any pedestrians are likely, the project's impact to pedestrian facilities is not significant, and mitigation is not required.

Bicycle Facilities. The same issues affecting pedestrian travel also affect bicycles. The project's distance to potential employee residences is too far to make bicycling a feasible option, the project's limited trip generation would not result in any new vehicle / bicycle conflicts or exacerbate current deficiencies, and the project's impact to bicycle facilities and travel is not significant, and mitigation is not required.

Transit. Some employees could elect to use transit service if it was convenient to the site. Yuba Sutter Transit provides service to the City of Live Oak north of the project, but that route does not leave SR 99. The closest regular Yuba-Sutter Transit stop is to the south on Northgate Drive is about 2½ miles away. This distance is generally beyond normal expectations for regular transit use. Because few truckers riding transit are anticipated, the project's impact on transit use based on ridership is not significant, and mitigation is not required.

Safety Impacts to Caltrans Facilities

Considerations. While Level of Service analysis is no longer a consideration, a project's impacts to safety on Caltrans facilities remains a significance criterion under CEQA. Under current practice, safety impacts on state facilities are typically considered within the context of queuing on off-ramps and in turn lanes at intersections, truck turning requirements and the need for alternative traffic control devices. Queuing that spills over from a turn lane or extends down an off-ramp to the mainline freeway could represent significant safety issues. Intersections where truck paths leave the pavement or encroach into opposing lanes are a safety issue. Operation of an intersection with inappropriate traffic control devices would also represent a potential safety issue.

Evaluation. The project could add a small amount of automobile and truck traffic through the SR 99 / Eager Road interchange. However, because current traffic volumes are low that small increase would not result in any appreciable increase in queuing that might cause a safety issue as it relates to mainline SR 99. The ramp terminal intersections are currently stop controlled, the addition of project traffic would not result in the need for signalization at these low volume levels.

The project would add large trucks, including STAA turning at the intersections at the SR 99 / Eager Road interchange. STAA trucks are not permitted on Eager Road. While initial review suggests that STAA trucks can be accommodated at the ramp intersections, an STAA designation will need to be pursued by Sutter County with supporting information provided by the project proponent.

Overall, the project's impact to safety on state facilities is not significant, and mitigation is not required.

TRAFFIC OPERATIONAL ANALYSIS

This report section addresses the traffic operational effects of the project within the context of Sutter County General Plan policies and the adequacy of site access.

Effects based on Daily Traffic Volumes and Level of Service

Traffic Volumes. On a daily basis the project could add 6 automobile trips to Eager Road east of the site access and a total of 49 vehicles (i.e., 31 automobiles and 18 trucks) to Eager Road to the west. Based on the sum of current plus project traffic, Eager Road would continue to operate with Level of Service that met minimum requirements of the General Plan Circulation Element using the daily volume thresholds presented in the General Plan.

Plus Project intersection Levels of Service. As the volume of peak hour traffic associated with the project would be minimal, the project would not change the current Level of Service at the interchange nor cause traffic signal warrants to be met. LOS B, which satisfies the General Plan's minimum requirement, will continue with the addition of project trips.

Site Access

Anticipated traffic volumes and truck turning requirements were reviewed at the site access to determine whether proposed improvements are adequate or additional improvements are justified.

Sight Distance. The alignment of Eager Road in this area is level and straight. As a result, the view measured 15 feet from the edge of the travel way looking west to the SR 99 interchange would satisfy Caltrans Minimum Sight Distance (Table 201.1 500 feet at 55 mph) and Corner Sight Distance (Table 405.1a 925 feet at 55 mph) requirements. However, trees just west of the driveway will need to be trimmed or removed to provide a clear line of sight for vehicles.

The view looking east from the new driveway is affected by its proximity to the Live Oak Blvd intersection and due to trees that grow along the right of way of the adjoining parcel. The new driveway is about 150 feet outside of the Eager Road / Live Oak Blvd intersection. That distance satisfies Minimum Sight Distance at 15 mph 9150 feet), but not Corner Sight Distance (Table 405.1a 425 feet at 55 mph) requirements. The 25 mph speed is applicable because traffic turning left or right from Live Oak Blvd onto Eager Road will only be traveling at 20 to 25 mph. The two standards indicate that westbound traffic will have time to see a vehicle leave the project and come to a stop (i.e., minimum sight distance). However, when vehicles exit the site westbound traffic will very likely need to slow as the approach that vehicle (i.e., corner sight distance).

As noted, the view looking east from the driveway is affected by existing trees that are just outside of the right of way along the adjoining parcel. These trees will likely need to be trimmed to provide a clear line of sight to Live Oak Blvd from the cab of a truck.

Proposed Access Evaluation. The site plan indicates that the project driveway will be 50 feet wide and will be accompanied by 25 feet radius returns. No paved shoulders exist in this area of Eager Road and no shoulder improvements beyond the driveway described above are proposed.

A rolling gate is proposed 65 feet beyond the right of way and about 85 feet from the edge of Eager Road.

Functionally, the current layout provides the pavement width needed to allow trucks to enter or exit the site without encroaching into the opposing travel lanes on Eager Road or leaving the pavement. However, exiting trucks headed easterly would occupy the entire width of the driveway when making that turn. This layout does not provide formal acceleration and deceleration lanes nor is a paved shoulder available in advance of the driveway. While the current plan would require trucks to slow in the through travel lane when entering the site, such features are not judged to be necessary because the potential for conflicts with following vehicles is very low due to the very low number of trucks at the site. In addition, few if any trucks are likely to leave the site by turning right.

CUMULATIVE TRAFFIC OPERATIONS

Background

This report section considers the effects of the project within the context of future background traffic conditions. Three perspectives were considered:

- Year 2040 conditions based on SACOG SacSim regional travel demand forecasting model results;
- Year 2040 traffic volume forecasts from the Sutter County General Plan EIR Transportation and Circulation section; and
- Effects of approved or pending development projects identified by Sutter County staff.

SACOG SacSim Traffic Model Forecasts. The SacSim model forecasts reflect land use assumptions made by its member agencies for development over the six county areas to the Year 2040. These assumptions rarely result in full buildout of individual areas but represent allocations of regional expectations for population and employment growth. While not all roadway segments have forecasts, Year 2040 p.m. peak hour traffic volumes based on that source are presented in Table 4 along with the growth factors implied by those forecasts.

Sutter County General Plan Projections. The General Plan EIR addresses "Adjusted Buildout" conditions and identifies daily traffic volume forecasts resulting from assumed growth. However, no information is provided for Eager Road. Daily traffic volumes presented in the EIR for Live Oak Blvd are also shown Table 4, as well as the equivalent growth rates derived from those volumes.

Approved Pending Projects. From discussion with Sutter County staff and our own work we are aware of three approved / pending projects that could affect traffic volumes in the area of the proposed Moon Truck Parking / Service Facility.

The ***Church of Glad Tidings*** north of the project recently received approval of a use permit amendment for 5 portable classrooms and a warehouse building for the church's food supply redistribution operations. This use is limited to 2 truck deliveries per week. Institute of Transportation Engineers (ITE) trip generation rates suggests that five private school classrooms with 24 students each could generate 453 daily trips with 121 trips in the a.m. peak hour and 31 trips in the p.m. peak hour.

ET Eager Road Trucking has proposed a 200 space truck parking facility with service and truck wash on the west side of SR 99 on Eager Road. That project has not been approved by Sutter County. At the trip generation rates identified herein a facility of that size would generate 153 daily truck trips (66 inbound and 87 outbound) with 11 truck trips during peak hours. Another 250+ daily automobile trips would be expected.

Conclusion. Based on the information available from these three sources, the traffic volume forecast generated from the SACSIM model is the most reasonable expectation for future traffic volumes. The trips associated with the two identified approved / pending projects would fall within

the traffic volume increase that would occur on Eager Road based on the growth factor derived from the model.

Table 4 indicates that background traffic on Eager Road could increase to 5,675 vehicles per day in 2040. That volume with or without the incremental traffic added by the project, will continue to provide Level of Service that satisfies minimum Sutter County standards.

TABLE 4
YEAR 2040 BACKGROUND TRAFFIC VOLUMES FORECASTS

Road	Location	Existing	SACSIM Model		General Plan[1]	
		Volume	Growth Rate	Volume	Volume	Growth Factor
Background Volumes based on Original Data						
Eager Road	SR 99 to Live Oak Blvd	109	1.22	133	Not available-	
Live Oak Blvd	North of Yuba City limits	6,620[1] 150[3]	1.35[2]	202[3]	7,560[1]	1.14[2]
Estimated Background Volumes Interpolated from Each Source						
Eager Road	SR 99 to Live Oak Blvd	4,650	1.22	5,675		

[1] Daily Volume from General Plan EIR Table 6.14-11 Roadway Segment Levels of Service – 2030 Adjusted Buildout
[2] Growth rate derived from compassion of GP EIR's "existing" volume of 6,620 and forecast of 7,650.
[3] PM peak hour volumes

APPENDIX

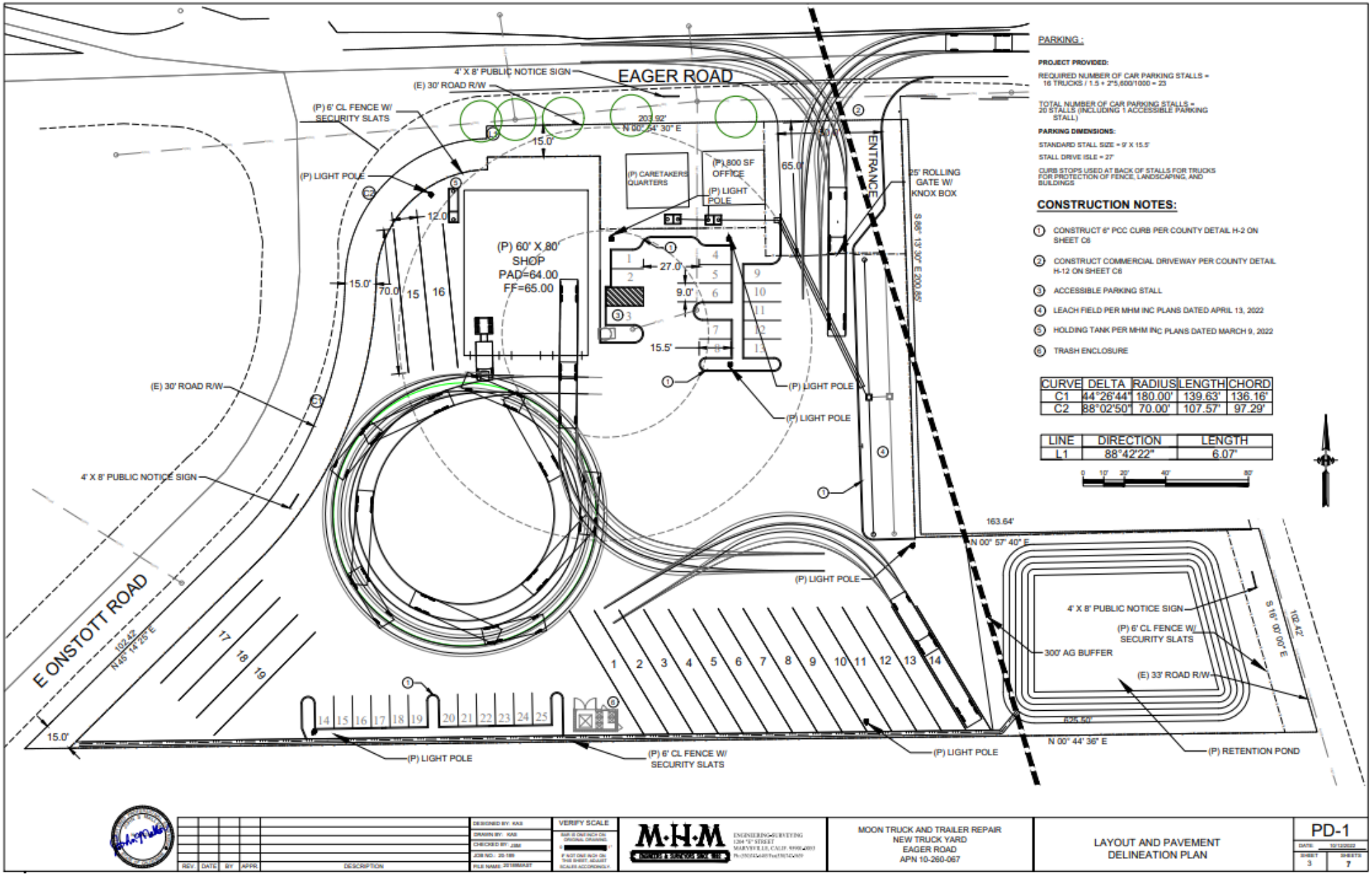
Figures 1-3
Traffic Counts
Level of Service Calcs

VICINITY MAP

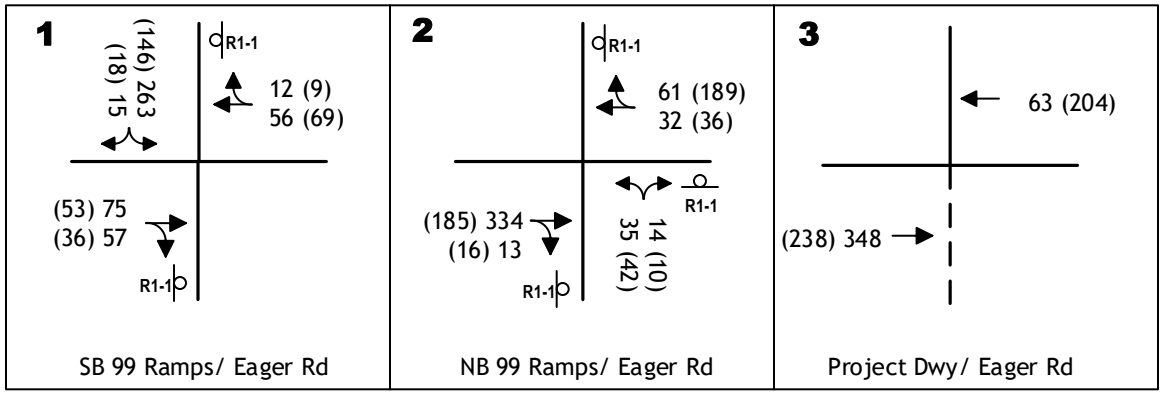
KD Anderson & Associates, Inc.
Transportation Engineers

3885-01 RA 10/18/2022

figure 1


EAGER ROAD
4' X 8' PUBLIC NOTICE SIGN
(E) 30' ROAD R/W
(P) 6' CL FENCE W/ SECURITY SLATS
(P) LIGHT POLE
203.92'
N 00° 54' 30" E
15.0'
(P) CARETAKERS QUARTERS
(P) 800 SF OFFICE
(P) LIGHT POLE
65.0'
ENTRANCE
25' ROLLING GATE W/ KNOX BOX
S 89° 13' 30" E 200.65'
(P) 60' X 80' SHOP PAD=64.00 FF=65.00
12.0'
15.0'
70.0'
15
16
27.0'
9.0'
15.5'
(P) LIGHT POLE
(P) LIGHT POLE
(E) 30' ROAD R/W
4' X 8' PUBLIC NOTICE SIGN
E ONSTOTT ROAD
102.42'
N 45° 14' 25" E
15.0'
17
18
19
1 2 3 4 5 6 7 8 9 10 11 12 13 14
14 15 16 17 18 19 20 21 22 23 24 25
(P) LIGHT POLE
(P) 6' CL FENCE W/ SECURITY SLATS
(P) LIGHT POLE
163.64'
N 00° 57' 40" E
(P) LIGHT POLE
4' X 8' PUBLIC NOTICE SIGN
(P) 6' CL FENCE W/ SECURITY SLATS
300' AG BUFFER
(E) 33' ROAD R/W
S 16° 00' 00" E
134.42'
625.50'
N 00° 44' 36" E
(P) RETENTION POND
PARKING :
PROJECT PROVIDED:
REQUIRED NUMBER OF CAR PARKING STALLS = 16 TRUCKS / 1.5 + 2*5,600/1000 = 23
TOTAL NUMBER OF CAR PARKING STALLS = 20 STALLS (INCLUDING 1 ACCESSIBLE PARKING STALL)
PARKING DIMENSIONS:
STANDARD STALL SIZE = 9' X 15.5'
STALL DRIVE ISLE = 27'
CURB STOPS USED AT BACK OF STALLS FOR TRUCKS FOR PROTECTION OF FENCE, LANDSCAPING, AND BUILDINGS
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 LEACH FIELD PER MHM INC PLANS DATED APRIL 13, 2022
5 HOLDING TANK PER MHM INC PLANS DATED MARCH 9, 2022
6 TRASH ENCLOSURE
CURVE DELTA RADIUS LENGTH CHORD
C1 44°26'44" 180.00' 139.63' 136.16'
C2 88°02'50" 70.00' 107.57' 97.29'
LINE DIRECTION LENGTH
L1 88°42'22" 6.07'
0 10' 20' 40' 80'
VERIFY SCALE
M·H·M
MOON TRUCK AND TRAILER REPAIR
NEW TRUCK YARD
EAGER ROAD
APN 10-260-067
LAYOUT AND PAVEMENT DELINEATION PLAN
PD-1
SHEET 3
SHEETS 7

SITE PLAN



Legend

XX AM Peak Hour Volume
(XX) PM Peak Hour Volume
R1-1 Stop Sign

NORTH

N.T.S.

EXISTING TRAFFIC VOLUMES AND LANE CONFIGURATIONS

KD Anderson & Associates, Inc.
Transportation Engineers

NB 99 Ramps & Eager Rd

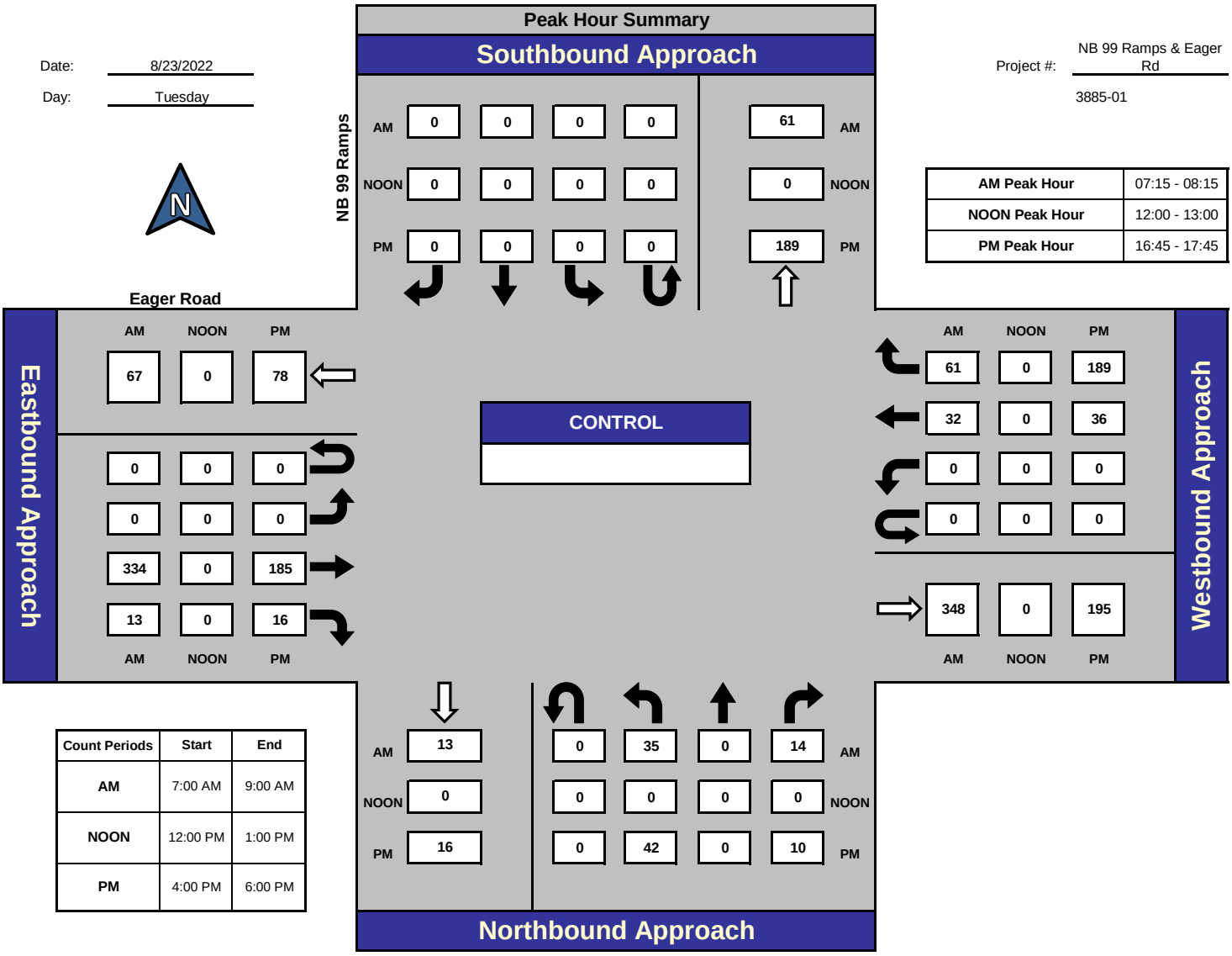
Date: 8/23/2022

Day: Tuesday

Project #: NB 99 Ramps & Eager Rd

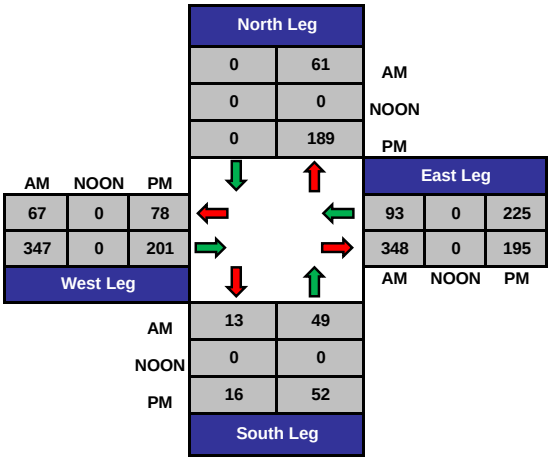
3885-01

AM Peak Hour	07:15 - 08:15
NOON Peak Hour	12:00 - 13:00
PM Peak Hour	16:45 - 17:45

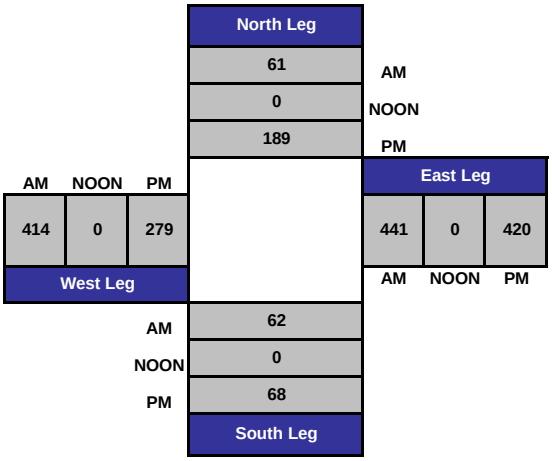


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	12:00 PM	1:00 PM
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ALL TRAFFIC DATA

3885-01

Yuba City
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : NB 99 Ramps & Eager Rd
Date : 8/23/2022

Unshifted Count = All Vehicles & Uturns

	NB 99 Ramps Southbound					Eager Road Westbound					NB 99 Ramps Northbound					Eager Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
7:00	0	0	0	0	0	0	7	13	0	20	2	0	5	0	7	0	43	3	0	46	73	0
7:15	0	0	0	0	0	0	8	16	0	24	7	0	1	0	8	0	84	3	0	87	119	0
7:30	0	0	0	0	0	0	7	10	0	17	13	0	1	0	14	0	103	5	0	108	139	0
7:45	0	0	0	0	0	0	10	21	0	31	11	0	3	0	14	0	88	4	0	92	137	0
Total	0	0	0	0	0	0	32	60	0	92	33	0	10	0	43	0	318	15	0	333	468	0
8:00	0	0	0	0	0	0	7	14	0	21	4	0	9	0	13	0	59	1	0	60	94	0
8:15	0	0	0	0	0	0	11	21	0	32	6	0	9	0	15	0	59	1	0	60	107	0
8:30	0	0	0	0	0	0	9	10	0	19	6	0	6	0	12	0	38	2	0	40	71	0
8:45	0	0	0	0	0	0	11	12	0	23	6	0	10	0	16	0	51	3	0	54	93	0
Total	0	0	0	0	0	0	38	57	0	95	22	0	34	0	56	0	207	7	0	214	365	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	13	38	0	51	9	0	2	0	11	0	46	5	0	51	113	0
16:15	0	0	0	0	0	0	12	28	0	40	15	0	4	0	19	0	50	7	0	57	116	0
16:30	0	0	0	0	0	0	5	44	0	49	6	0	1	0	7	0	38	2	0	40	96	0
16:45	0	0	0	0	0	0	10	36	0	46	7	0	1	0	8	0	48	3	0	51	105	0
Total	0	0	0	0	0	0	40	146	0	186	37	0	8	0	45	0	182	17	0	199	430	0
17:00	0	0	0	0	0	0	10	67	0	77	9	0	2	0	11	0	43	6	0	49	137	0
17:15	0	0	0	0	0	0	9	59	0	68	9	0	3	0	12	0	51	4	0	55	135	0
17:30	0	0	0	0	0	0	7	27	0	34	17	0	4	0	21	0	43	3	0	46	101	0
17:45	0	0	0	0	0	0	6	30	0	36	7	0	4	0	11	0	43	3	0	46	93	0
Total	0	0	0	0	0	0	32	183	0	215	42	0	13	0	55	0	180	16	0	196	466	0
Grand Total	0	0	0	0	0	0	142	446	0	588	134	0	65	0	199	0	887	55	0	942	1729	0
Apprch %	0.0%	0.0%	0.0%	0.0%		0.0%	24.1%	75.9%	0.0%		67.3%	0.0%	32.7%	0.0%		0.0%	94.2%	5.8%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.2%	25.8%	0.0%	34.0%	7.8%	0.0%	3.8%	0.0%	11.5%	0.0%	51.3%	3.2%	0.0%	54.5%	100.0%	

AM PEAK HOUR	NB 99 Ramps Southbound					Eager Road Westbound					NB 99 Ramps Northbound					Eager Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:15 to 08:15																					
Peak Hour For Entire Intersection Begins at 07:15																					
7:15	0	0	0	0	0	0	8	16	0	24	7	0	1	0	8	0	84	3	0	87	119
7:30	0	0	0	0	0	0	7	10	0	17	13	0	1	0	14	0	103	5	0	108	139
7:45	0	0	0	0	0	0	10	21	0	31	11	0	3	0	14	0	88	4	0	92	137
8:00	0	0	0	0	0	0	7	14	0	21	4	0	9	0	13	0	59	1	0	60	94
Total Volume	0	0	0	0	0	0	32	61	0	93	35	0	14	0	49	0	334	13	0	347	489
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	34.4%	65.6%	0.0%		71.4%	0.0%	28.6%	0.0%		0.0%	96.3%	3.7%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.800	.726	.000	.750	.673	.000	.389	.000	.875	.000	.811	.650	.000	.803	.879

NOON PEAK	NB 99 Ramps Southbound					Eager Road Westbound					NB 99 Ramps Northbound					Eager Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 12:00 to 13:00																					
Peak Hour For Entire Intersection Begins at 12:00																					
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

PM PEAK HOUR	NB 99 Ramps Southbound					Eager Road Westbound					NB 99 Ramps Northbound					Eager Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	0	0	0	0	0	0	10	36	0	46	7	0	1	0	8	0	48	3	0	51	105
17:00	0	0	0	0	0	0	10	67	0	77	9	0	2	0	11	0	43	6	0	49	137
17:15	0	0	0	0	0	0	9	59	0	68	9	0	3	0	12	0	51	4	0	55	135
17:30	0	0	0	0	0	0	7	27	0	34	17	0	4	0	21	0	43	3	0	46	101
Total Volume	0	0	0	0	0	0	36	189	0	225	42	0	10	0	52	0	185	16	0	201	478
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	16.0%	84.0%	0.0%		80.8%	0.0%	19.2%	0.0%		0.0%	92.0%	8.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.900	.705	.000	.731	.618	.000	.625	.000	.619	.000	.907	.667	.000	.914	.872

SB 99 Ramps & Eager Rd

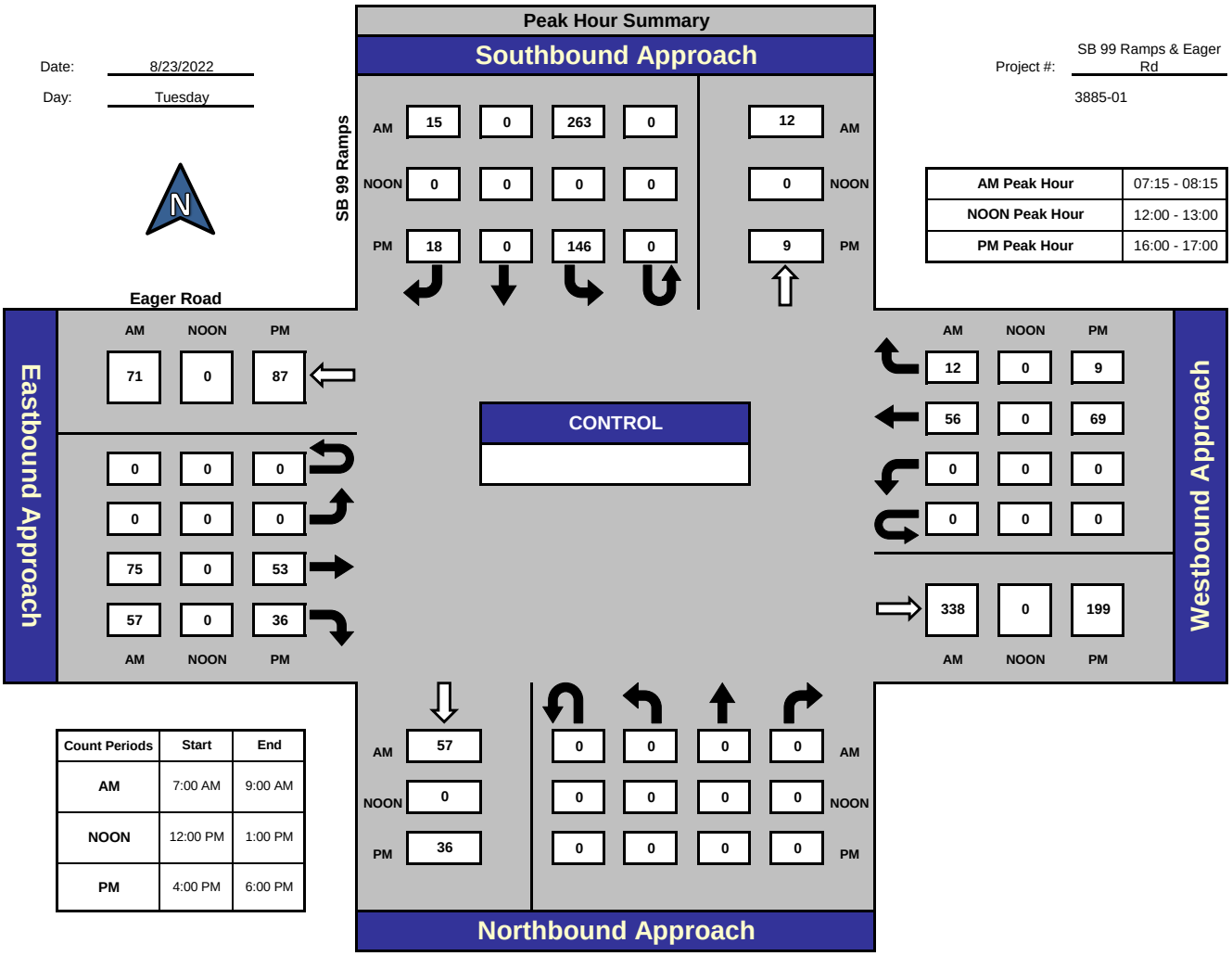
Date: 8/23/2022

Day: Tuesday

Project #: SB 99 Ramps & Eager Rd

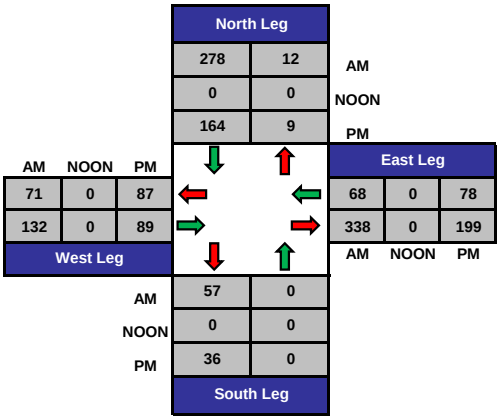
3885-01

AM Peak Hour	07:15 - 08:15
NOON Peak Hour	12:00 - 13:00
PM Peak Hour	16:00 - 17:00

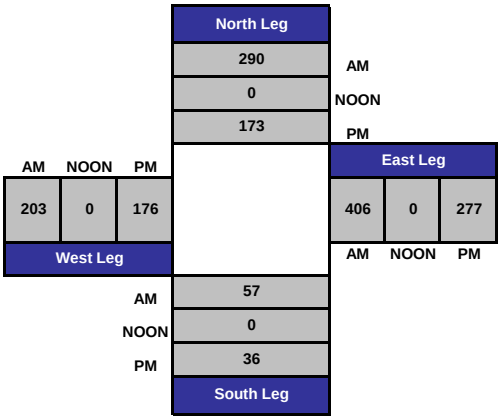


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	12:00 PM	1:00 PM
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ALL TRAFFIC DATA

3885-01

Yuba City
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : SB 99 Ramps & Eager Rd
Date : 8/23/2022

Unshifted Count = All Vehicles & Uturns

	SB 99 Ramps Southbound					Eager Road Westbound					SB 99 Ramps Northbound					Eager Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
7:00	31	0	3	0	34	0	5	0	0	5	0	0	0	0	0	0	15	3	0	18	57	0
7:15	66	0	5	0	71	0	11	5	0	16	0	0	0	0	0	0	13	8	0	21	108	0
7:30	83	0	5	0	88	0	16	2	0	18	0	0	0	0	0	0	21	19	0	40	146	0
7:45	71	0	2	0	73	0	21	2	0	23	0	0	0	0	0	0	22	21	0	43	139	0
Total	251	0	15	0	266	0	53	9	0	62	0	0	0	0	0	0	71	51	0	122	450	0
8:00	43	0	3	0	46	0	8	3	0	11	0	0	0	0	0	0	19	9	0	28	85	0
8:15	48	0	4	0	52	0	9	7	0	16	0	0	0	0	0	0	16	7	0	23	91	0
8:30	28	0	5	0	33	0	13	2	0	15	0	0	0	0	0	0	11	3	0	14	62	0
8:45	33	0	2	0	35	0	11	7	0	18	0	0	0	0	0	0	17	9	0	26	79	0
Total	152	0	14	0	166	0	41	19	0	60	0	0	0	0	0	0	63	28	0	91	317	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	36	0	4	0	40	0	19	3	0	22	0	0	0	0	0	0	16	11	0	27	89	0
16:15	42	0	4	0	46	0	22	3	0	25	0	0	0	0	0	0	15	10	0	25	96	0
16:30	33	0	6	0	39	0	12	1	0	13	0	0	0	0	0	0	7	10	0	17	69	0
16:45	35	0	4	0	39	0	16	2	0	18	0	0	0	0	0	0	15	5	0	20	77	0
Total	146	0	18	0	164	0	69	9	0	78	0	0	0	0	0	0	53	36	0	89	331	0
17:00	29	0	2	0	31	0	16	3	0	19	0	0	0	0	0	0	18	11	0	29	79	0
17:15	44	0	6	0	50	0	18	1	0	19	0	0	0	0	0	0	15	14	0	29	98	0
17:30	35	0	4	0	39	0	19	5	0	24	0	0	0	0	0	0	8	2	0	10	73	0
17:45	35	0	1	0	36	0	10	1	0	11	0	0	0	0	0	0	9	6	0	15	62	0
Total	143	0	13	0	156	0	63	10	0	73	0	0	0	0	0	0	50	33	0	83	312	0
Grand Total	692	0	60	0	752	0	226	47	0	273	0	0	0	0	0	0	237	148	0	385	1410	0
Apprch %	92.0%	0.0%	8.0%	0.0%		0.0%	82.8%	17.2%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	61.6%	38.4%	0.0%			
Total %	49.1%	0.0%	4.3%	0.0%	53.3%	0.0%	16.0%	3.3%	0.0%	19.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.8%	10.5%	0.0%	27.3%	100.0%	

AM PEAK HOUR	SB 99 Ramps Southbound					Eager Road Westbound					SB 99 Ramps Northbound					Eager Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:15 to 08:15																					
Peak Hour For Entire Intersection Begins at 07:15																					
7:15	66	0	5	0	71	0	11	5	0	16	0	0	0	0	0	0	13	8	0	21	108
7:30	83	0	5	0	88	0	16	2	0	18	0	0	0	0	0	0	21	19	0	40	146
7:45	71	0	2	0	73	0	21	2	0	23	0	0	0	0	0	0	22	21	0	43	139
8:00	43	0	3	0	46	0	8	3	0	11	0	0	0	0	0	0	19	9	0	28	85
Total Volume	263	0	15	0	278	0	56	12	0	68	0	0	0	0	0	0	75	57	0	132	478
% App Total	94.6%	0.0%	5.4%	0.0%		0.0%	82.4%	17.6%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	56.8%	43.2%	0.0%		
PHF	.792	.000	.750	.000	.790	.000	.667	.600	.000	.739	.000	.000	.000	.000	.000	.000	.852	.679	.000	.767	.818

NOON PEAK	SB 99 Ramps Southbound					Eager Road Westbound					SB 99 Ramps Northbound					Eager Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 12:00 to 13:00																					
Peak Hour For Entire Intersection Begins at 12:00																					
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

PM PEAK HOUR	SB 99 Ramps Southbound					Eager Road Westbound					SB 99 Ramps Northbound					Eager Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:00 to 17:00																					
Peak Hour For Entire Intersection Begins at 16:00																					
16:00	36	0	4	0	40	0	19	3	0	22	0	0	0	0	0	0	16	11	0	27	89
16:15	42	0	4	0	46	0	22	3	0	25	0	0	0	0	0	0	15	10	0	25	96
16:30	33	0	6	0	39	0	12	1	0	13	0	0	0	0	0	0	7	10	0	17	69
16:45	35	0	4	0	39	0	16	2	0	18	0	0	0	0	0	0	15	5	0	20	77
Total Volume	146	0	18	0	164	0	69	9	0	78	0	0	0	0	0	0	53	36	0	89	331
% App Total	89.0%	0.0%	11.0%	0.0%		0.0%	88.5%	11.5%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	59.6%	40.4%	0.0%		
PHF	.869	.000	.750	.000	.891	.000	.784	.750	.000	.780	.000	.000	.000	.000	.000	.000	.828	.818	.000	.824	.862

Intersection	
Int Delay, s/veh	8.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↱	
Traffic Vol, veh/h	0	75	56	0	263	15
Future Vol, veh/h	0	75	56	0	263	15
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	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	91	68	0	321	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	159	68
Stage 1	-	-	-	-	68	-
Stage 2	-	-	-	-	91	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	0	-	-	0	832	995
Stage 1	0	-	-	0	955	-
Stage 2	0	-	-	0	933	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	832	995
Mov Cap-2 Maneuver	-	-	-	-	832	-
Stage 1	-	-	-	-	955	-
Stage 2	-	-	-	-	933	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	839
HCM Lane V/C Ratio	-	-	0.404
HCM Control Delay (s)	-	-	12.2
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	2

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SEL	SER
Lane Configurations		↑			↱		⇱			
Traffic Vol, veh/h	0	347	0	0	32	61	0	14	0	0
Future Vol, veh/h	0	347	0	0	32	61	0	14	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	-	None	-	-	None	-	None	-	-
Storage Length	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	0	-	0	-
Grade, %	-	0	-	-	0	-	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	394	0	0	36	69	0	16	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	-	0	-	-	-	0	465	394	
Stage 1	-	-	-	-	-	-	394	-	
Stage 2	-	-	-	-	-	-	71	-	
Critical Hdwy	-	-	-	-	-	-	6.42	6.22	
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	-	
Follow-up Hdwy	-	-	-	-	-	-	3.518	3.318	
Pot Cap-1 Maneuver	0	-	0	0	-	-	556	655	
Stage 1	0	-	0	0	-	-	681	-	
Stage 2	0	-	0	0	-	-	952	-	
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	-	556	655	
Mov Cap-2 Maneuver	-	-	-	-	-	-	556	-	
Stage 1	-	-	-	-	-	-	681	-	
Stage 2	-	-	-	-	-	-	952	-	

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT	WBR
Capacity (veh/h)	581	-	-	-
HCM Lane V/C Ratio	0.096	-	-	-
HCM Control Delay (s)	11.9	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↱	
Traffic Vol, veh/h	0	53	69	0	146	18
Future Vol, veh/h	0	53	69	0	146	18
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	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	62	80	0	170	21

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	142	80
Stage 1	-	-	-	-	80	-
Stage 2	-	-	-	-	62	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	0	-	-	0	851	980
Stage 1	0	-	-	0	943	-
Stage 2	0	-	-	0	961	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	851	980
Mov Cap-2 Maneuver	-	-	-	-	851	-
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	961	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	863
HCM Lane V/C Ratio	-	-	0.221
HCM Control Delay (s)	-	-	10.4
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.8

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SEL	SER
Lane Configurations										
Traffic Vol, veh/h	0	185	0	0	36	189	0	10	0	0
Future Vol, veh/h	0	185	0	0	36	189	0	10	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	-	None	-	-	None	-	None	-	-
Storage Length	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	0	-	0	-
Grade, %	-	0	-	-	0	-	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	213	0	0	41	217	0	11	0	0

Major/Minor	Major1			Major2			Minor1	
Conflicting Flow All	-	0	-	-	-	0	363	213
Stage 1	-	-	-	-	-	-	213	-
Stage 2	-	-	-	-	-	-	150	-
Critical Hdwy	-	-	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	0	-	0	0	-	-	636	827
Stage 1	0	-	0	0	-	-	823	-
Stage 2	0	-	0	0	-	-	878	-
Platoon blocked, %		-			-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	-	636	827
Mov Cap-2 Maneuver	-	-	-	-	-	-	636	-
Stage 1	-	-	-	-	-	-	823	-
Stage 2	-	-	-	-	-	-	878	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT	WBR
Capacity (veh/h)	666	-	-	-
HCM Lane V/C Ratio	0.09	-	-	-
HCM Control Delay (s)	10.9	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-