

**Public Review Draft Initial Study/Mitigated Negative Declaration**

**OID Maintenance Facility and Office: Site Plan Review and  
Architecture Review No. 2021-17**

*prepared by*

**City of Oakdale**

Public Services Department

455 S. Fifth Avenue

Oakdale, CA 95361

*prepared with the assistance of*

**J.B. Anderson Land Use Planning**

139 S. Stockton Avenue

Ripon, California 95366



**August 2022**

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# NEGATIVE DECLARATION

## Lead Agency:

City of Oakdale  
455 S. Fifth Avenue  
Oakdale, CA 95361

## PROJECT NAME:

Oakdale Irrigation District (OID) Maintenance Facility and Office: Site Plan Review and Architecture Review  
No. 2021-17

## PROJECT PROPONENT AND LEAD AGENCY:

Project Proponent: Oakdale Irrigation District  
1205 East F Street  
Oakdale, CA 95361

Lead Agency: City of Oakdale  
455 S. Fifth Avenue  
Oakdale, CA 95361

## PROJECT LOCATION:

The Proposed Project is located at 1110 Kaufman Road, Oakdale, CA 95361 on the southwest corner of Greger Street and Kaufman Road. Specifically, the Assessor's Parcel Number for the Project site is 063-024-023, 063-024-024, and 063-024-025. Figure 2 provides an illustration of the Project site's Location.

## PROJECT DESCRIPTION:

The Applicant is proposing a Site Plan Review and Architecture Review to allow for the development of a new office and maintenance facility that will include five (5) buildings for a total of 51,630 square feet on an undeveloped site totaling 9.64 acres. Building "A" is a 22,560 square foot automotive shop and warehouse. Building "B" is a 4,410 square foot material storage building. Building "C" is an 8,140 square foot truck storage building. Building "D" is a 1,353 square foot pest control department building. Building "E" consists of two (2) office buildings and is 18,983 square feet. Buildings "A" through "D" are pre-manufactured metal buildings. The table below presents the proposed building type and square footage of the Proposed Project.

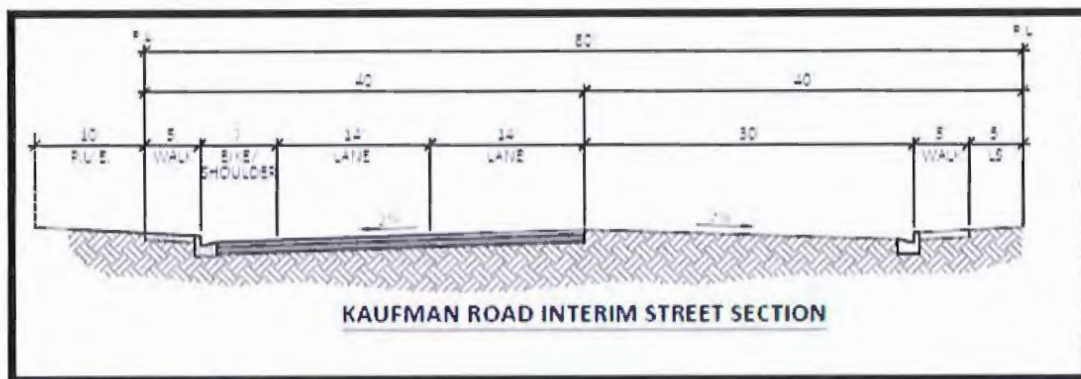
**Table 1 – Building Type and Square Footage**

Building	Proposed Use	Square Footage (sf)
A	Maintenance Facility (Auto Shop and Warehouse)	22,560
B	Maintenance Facility (Material Storage)	4,410
C	Maintenance Facility (Truck Storage)	8,140
D	Maintenance Facility (Pest Department)	1,353
E	OID Administration Building	18,983
<b>Total</b>		<b>51,630</b>

The Proposed Project site will also include the development of a vehicle storage area, stormwater retention basin, SCADA (Supervisory Control and Data Acquisition) tower 190-feet in height and fueling area. Details of the proposed SCADA are provided below.

Domestic water and sewer services will be provided via connecting to existing lines located in Greger Street. Storm drainage will be provided via the installation of a French drain system that connects to an on-site 66,711 cubic feet stormwater retention basin. Domestic water and sewer lines will also be installed in Kaufman Road in conjunction with Kaufman Road improvements along the Project site's frontage, which are illustrated below:

**Figure 1 – Kaufman Road Improvements**



Landscaping in the form of shrubs and trees will be provided along the sidewalk on Greger Street and Kaufman Road. Planters containing shrubs and trees will be provided around the office buildings. Planters containing shrubs and trees will be provided around the parking lot for the office building and around the stormwater retention basin. The stormwater retention basin will be sodded with bioswale turf. See Figure 7 for the Landscape Plan.

Perimeter wall improvements shall consist of a six (6) foot tall decorative metal fence with masonry pilasters at the corners along Greger Street and Kaufman Road and an eight (8) foot tall chain-link fence separating the southern edge of the site and the agriculture parcel to the south.

Access to the Proposed Project will be provided via two (2) driveways from Greger Street and two (2) driveways on Kaufman Road. The west driveway on Greger Street and both driveways on Kaufman Road will have decorative security gates that match the decorative metal fence. The Proposed Project will also include gated entry and exit at the access points noted above.

### SCADA Tower

As noted above, the Proposed Project includes the installation of a 190-foot tall SCADA (Supervisory Control and Data Acquisition) communications tower. The purpose of the SCADA tower is to allow OID staff to monitor the OID's nearly 300 automated canal gates and flow meters currently incorporated into their SCADA system. OID currently maintains an antenna at its current facility located at 1205 East F Street. The SCADA antenna and infrastructure will be relocated with the development of the Proposed Project. The SCADA tower is proposed to be located in the southern portion of the Project site, adjacent to the proposed storm drain basin. Figures 8 and 9 illustrate the proposed SCADA tower location and elevation.

### Project Phasing

The Applicant is proposing to develop the Proposed Project in three (3) phases. Phase 1 generally consists of the following:

- Buildings A, B, C, and D;
- Utility connections and temporary parking stalls located south of Building A;
- Installation of the SCADA tower;
- Frontage improvements to Greger Street and Kaufman Road; and
- Installation of the storm drain basin.

Phase 2 generally consists of the following:

- Building E;
- Installation of security gates between public and employee parking areas, including card reader equipment;
- Installation of decorative fencing and pilasters at the north and east end of Building A; and
- Monument signage.

Phase 3 generally consists of the following:

- Expansion of Buildings B and C, including a 4,340 square foot addition to Building B and a 6,240 square foot addition to Building C.

Although the Proposed Project will be developed in phases, this Initial Study evaluates the Proposed Project as it will be developed and built out in one (1) single phase.

#### **ENVIRONMENTAL DETERMINATION:**

The Lead Agency has prepared an Initial Study, following, which considers the potential environmental effects of the Proposed Project. The Initial Study shows that there is no substantial evidence, in light of the whole record before the Lead Agency, that the Proposed Project may have a potentially significant effect on the environment, provided that the following mitigation measures are included in the Proposed Project.

##### Mitigation Measure 10-1:

- The Proposed Project shall comply with the City's 2030 General Plan Policies, including PF-3.3, 3.4 and 3.5.
- The Proposed Project shall comply with the requirements of the Regional Water Board's Construction General Permit.
- The Proposed Project requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) to reduce the potential adverse impacts on surface water quality through the project construction period.
- Operation of the Proposed Project is subject to the Regional Water Board's Municipal Regional Permit.
- A Stormwater Control Plan (SCP) must be prepared and submitted for the Project site and must detail design elements and implementation measures to meet MRP requirements.
- The Proposed Project is required to include Low Impact Development (LID) design measures and a Stormwater Facility Operation and Maintenance Plan must be prepared to ensure that storm water control measures are inspected, maintained, and funded for the life of the project.

##### Mitigation Measure 13-1:

Construction equipment shall be well maintained to be as quiet as possible. The following measures, when applicable, shall be implemented to reduce noise from construction activities:

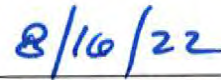
- All internal combustion engine-driven equipment shall be equipped with mufflers that are in good condition and appropriate for the equipment.
- "Quiet" models of air compressors and other stationary noise sources shall be used, where technology exists.
- Stationary noise-generating equipment shall be located as far as feasible from sensitive receptors (dwellings).
- Unnecessary idling of internal combustion engines shall be prohibited.
- Staging areas and construction material storage areas shall be located as far away as possible from adjacent sensitive land uses (dwellings).
- Construction-related traffic shall be routed along major roadways (Yosemite Avenue) and as far as feasible from sensitive receptors.

- Residences or noise-sensitive land uses adjacent to construction sites shall be notified of the construction schedule in writing. The construction contractor shall designate a "construction liaison" that would be responsible for responding to any local complaints (e.g., starting too early, bad muffler, etc.) and shall institute reasonable measures to correct the problem. The construction contractor shall conspicuously post a telephone number for the liaison at the construction site.
- The construction contractor shall hold a pre-construction meeting with the job inspectors and the general contractor/on-site manager to confirm that noise mitigation and practices (including construction hours, construction schedule, and construction liaison) are completed.

All of the above measures shall be included in the contract specifications that shall be reviewed and approved by the City of Oakdale Public Services Department prior to the start of construction. The above measures would reduce noise generated by the construction of the project to the extent feasible for the project's size and will ensure that the project does not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.



Mr. Mark Niskanen, City Planner



Date

# INITIAL STUDY

## 1. PROJECT TITLE

Oakdale Irrigation District (OID) Maintenance Facility and Office: Site Plan Review and Architecture Review  
No. 2021-17

## 2. LEAD AGENCY NAME AND ADDRESS

City Oakdale  
Public Services Department  
455 S. Fifth Ave.  
Oakdale, CA 95361

## 3. CONTACT PERSON AND PHONE NUMBER

Mr. Mark Niskanen, City Planner  
Email: [mark@jbandersonplanning.com](mailto:mark@jbandersonplanning.com)  
Phone: 209-599-8377

## 4. PROJECT LOCATION

The Proposed Project is located at 1110 Kaufman Road, Oakdale, CA 95361 on the southwest corner of Greger Street and Kaufman Road. Specifically, the Assessor's Parcel Number for the Project site is 063-024-023, 063-024-024, and 063-024-025. Figure 2 provides an illustration of the Project site's location.

## 5. PROJECT SPONSOR'S NAME AND ADDRESS

Oakdale Irrigation District  
Attn: Mr. Eric Thorburn  
Water Operations Manager/District Engineer  
1205 East F Street  
Oakdale, CA 95361

## 6. EXISTING SETTING

The Proposed Project site consists of raw fallow ground located between existing industrial sites to the north, west, and east and an agricultural orchard to the south. The topography of the Project site is relatively flat. Figure 3, Site Photos, provide photographic representation of the Project site.

## 7. EXISTING GENERAL PLAN DESIGNATION

The Proposed Project site is designated for Industrial (IND) land uses per the City's 2030 General Plan.

## 8. EXISTING ZONING

The existing zoning of the Project site is L-M, Limited Industrial.

## 9. SURROUNDING LAND USES AND SETTING

The table below depicts the Proposed Project's surrounding land uses and setting:

**Table 2 – Surrounding Land Uses and Setting**

	Existing Use	General Plan Land Use Designation	Zoning Classification
<b>North</b>	Greger Street, Single-Family Subdivision, and Vehicle Manufacturing and Servicing	Low Density Residential (LDR) and Industrial (IND)	R-1, Single-Family Residential; L-M, Limited Industrial
<b>South</b>	Agriculture	Industrial (IND)	L-M, Limited Industrial
<b>East</b>	Industrial uses	Industrial (IND)	L-M, Limited Industrial
<b>West</b>	Self-Storage Facility	High Density Residential (HDR)	L-M, Limited Industrial

## 10. DESCRIPTION OF THE PROJECT

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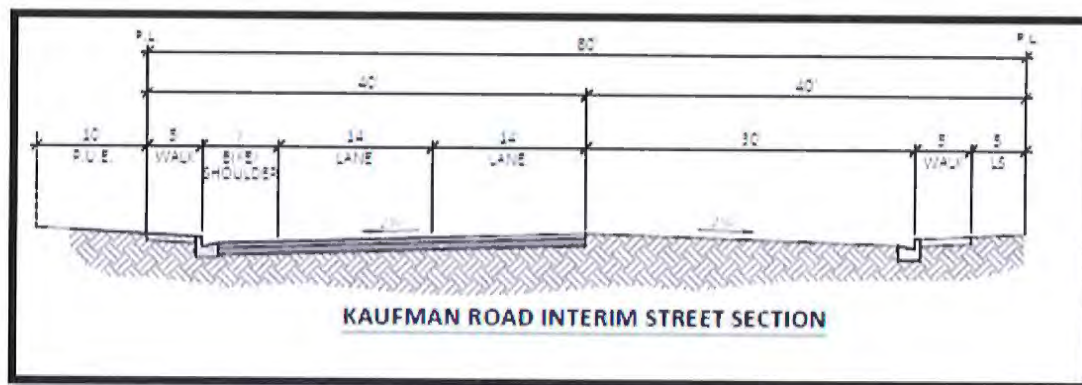
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Although the Proposed Project will be developed in phases, this Initial Study evaluates the Proposed Project as it will be developed and built out in one (1) single phase.

#### **11. OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED**

There are no other public agencies whose approval is required for the Proposed Project.

#### **12. HAVE CALIFORNIA NATIVE AMERICAN TRIBES TRADITIONALLY AND CULTURALLY AFFILIATED WITH THE PROJECT AREA REQUESTED CONSULTATION PURSUANT TO PUBLIC RESOURCES CODE SECTION 21080.3.1?**

None have requested consultation. However, in accordance with Public Resources Code Section 21080.3.1, consultation requests were submitted to the following Native American Tribes on February 14, 2022:

- Wuksache Indian Tribe/Eshom Valley Band;
- Wilton Rancheria;
- Tule River Indian Tribe;
- Southern Sierra Miwuk Nation;
- Northern Valley Yokuts Tribe; and,
- Calaveras Band of Mi-Wuk Indians.

The City did not receive any formal consultation requests as a result of the letters that were issued on February 14, 2022.

Figure 2 – Project Location Map



Figure 3 – Site Photos





Figure 3, Continued



Figure 4 – Existing General Plan Land Use Designation

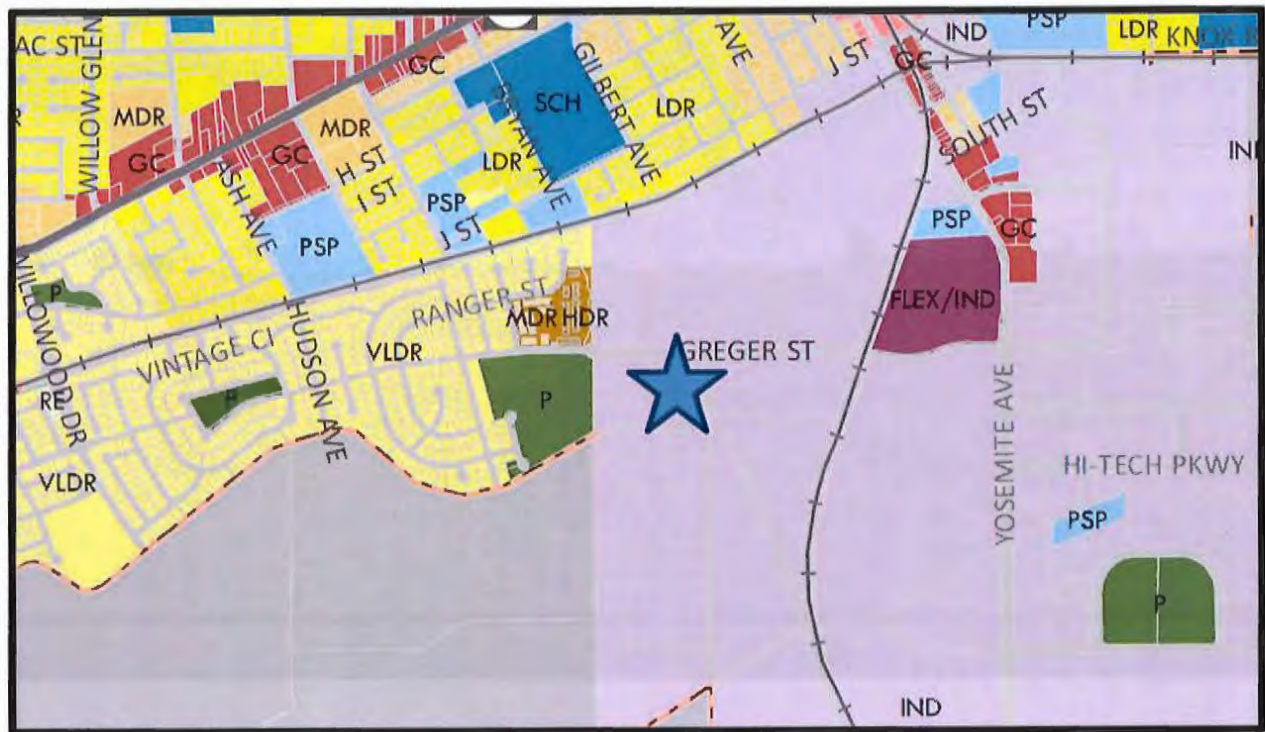




Figure 5 –Existing Zoning

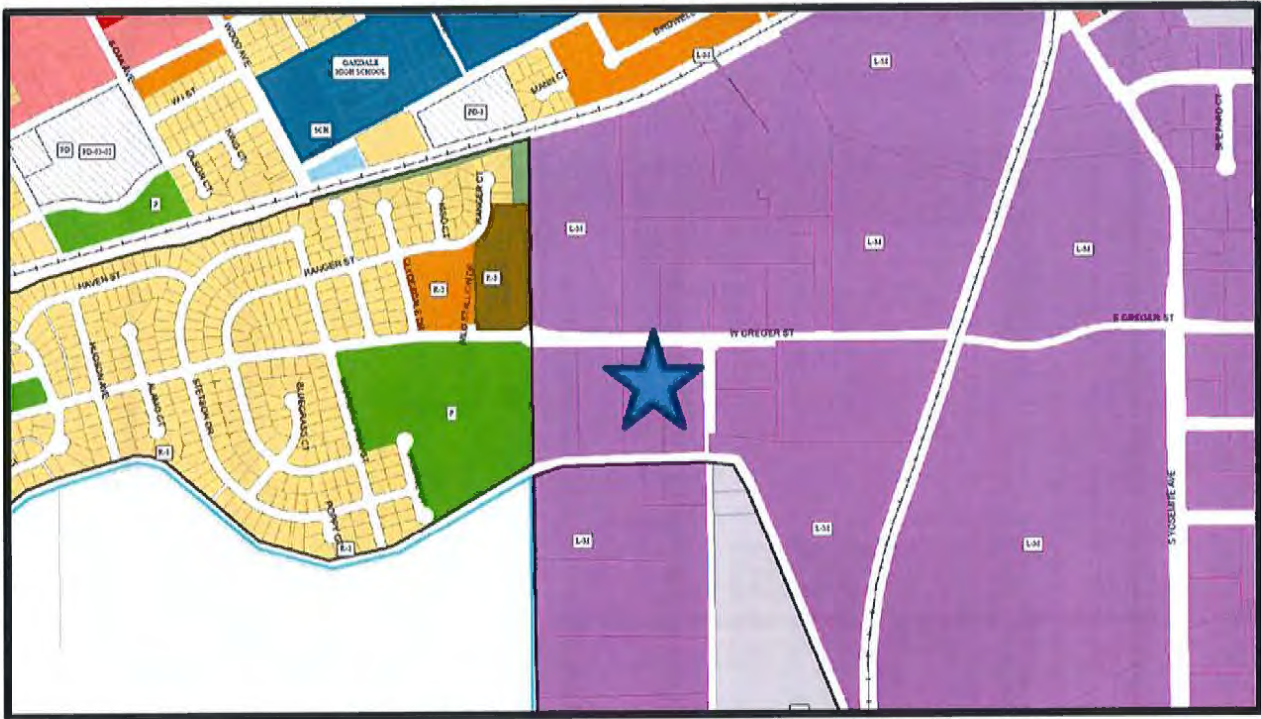
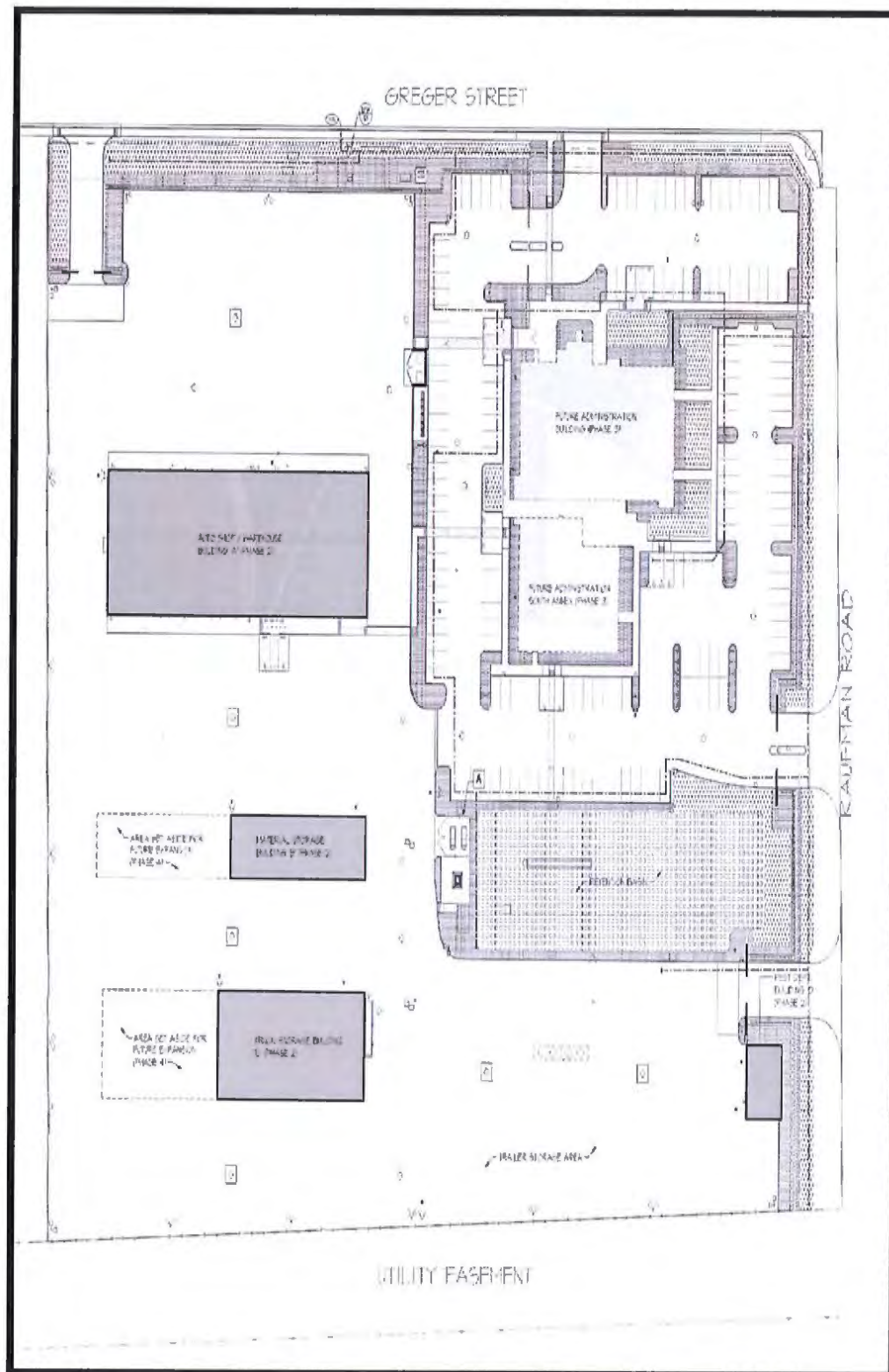


Figure 6 – Site Plan





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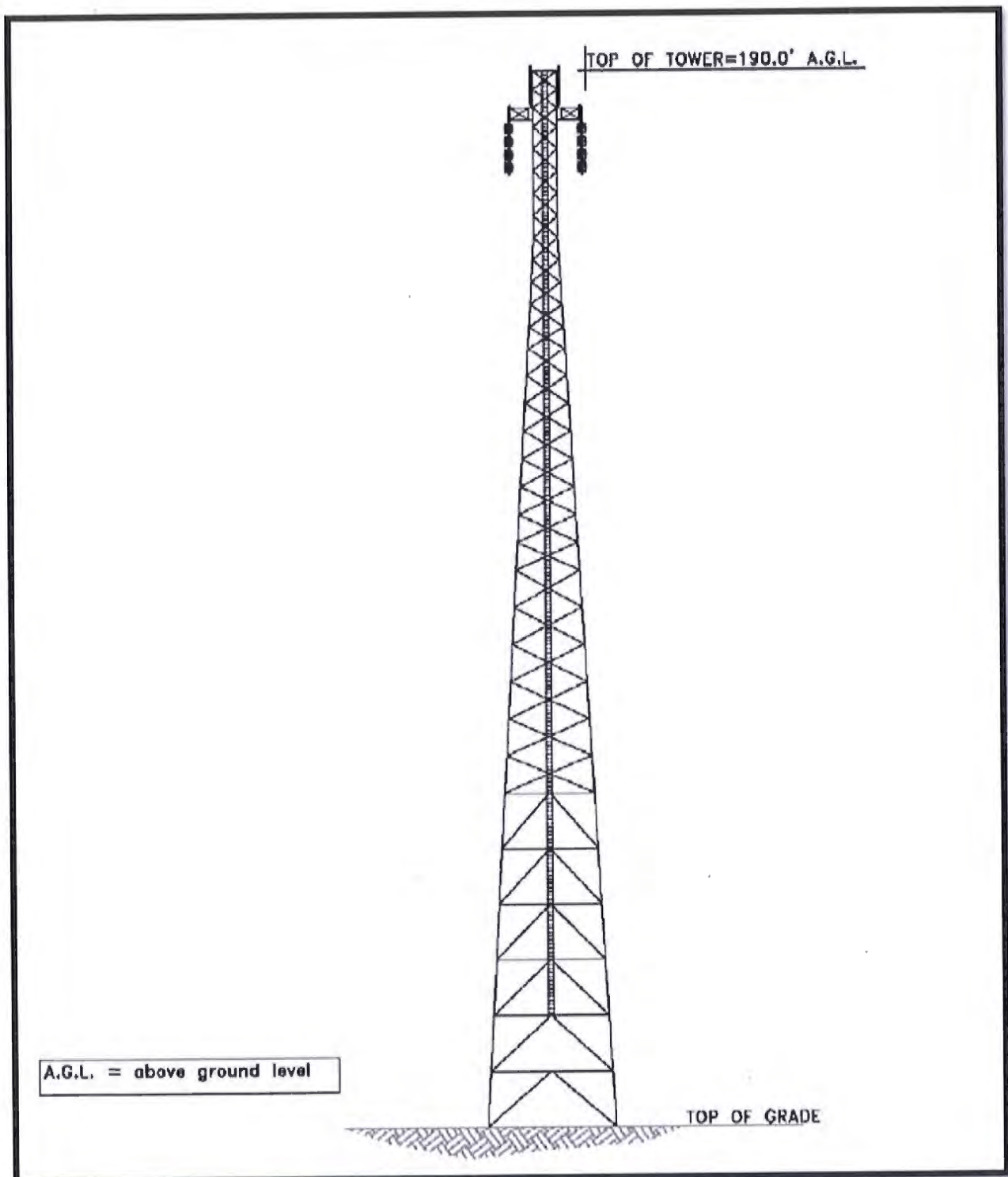


Figure 8 – SCADA Tower Location





Figure 9 – SCADA Tower Elevation




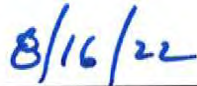
**13. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

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 Materials		Hazards and Hazardous
	Hydrology and Water Quality		Land Use and Planning		Mineral Resources
	Noise		Population and Housing		Public Services
	Recreation		Transportation/Traffic		Utilities and Service Systems
	Wildfire		Mandatory Findings of Significance		

#### 14. LEAD AGENCY 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.
X	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.
	
Mr. Mark Niskanen, City Planner	
	
Date	

## SECTION 2.0 EVALUATION INSTRUCTIONS:

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
  - a) Earlier Analysis Used. Identify and state where they are available for review.
  - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
  - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

For the purposes of this Initial Study, the environmental analysis contained herein is tiered from the City's 2030 General Plan and Environmental Impact Report (EIR). Copies of the General Plan and EIR can be reviewed at the City's Public Services Department, 455 S. Fifth Avenue, Oakdale, CA 95361, or via the City's website at [www.oakdale.gov](http://www.oakdale.gov).

- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
  - a) The significance criteria or threshold, if any, used to evaluate each question; and
  - b) The mitigation measure identified, if any, to reduce the impact to less than significance.



# INITIAL STUDY CHECKLIST

This section of the Initial Study incorporates the most current Appendix "G" Environmental Checklist Form, contained in the CEQA Guidelines.

## 1. AESTHETICS -- WOULD THE PROJECT:

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

## IMPACT ANALYSIS

### a. Would the project have a substantial adverse effect on a scenic vista?

According to the City's 2030 General Plan Environmental Impact Report (EIR), visual landscapes within the City of Oakdale consist of the historic downtown commercial core, the City's historic residential neighborhoods, the Stanislaus River Corridor, farmland and the City's western agricultural greenbelt, and scenic roadways. The Proposed Project is not located within an area the City's General Plan and EIR considers to be a scenic vista.

Therefore, the Proposed Project will have a **Less Than Significant Impact**.

### b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a state scenic highway?



According to the City's 2030 General Plan EIR, Interstate 5 in the western portion of Stanislaus County is the only officially designated state scenic highway. Therefore, the Proposed Project will have **No Impact**.

- c. *Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

The Proposed Project is located within an urbanized area of the City of Oakdale. As noted previously, the existing zoning of the Project site is L-M, Limited Industrial. All development standards, including those applicable to scenic quality, will be adhered to by the Proposed Project. However, it is important to note that the Proposed Project includes the installation of a SCADA tower, which is proposed at 190-feet in height. The purpose of the SCADA tower is to allow OGD staff to monitor the OGD's nearly 300 automated canal gates and flow meters. The tower will be located within the southern portion of the Project site, adjacent to the storm drain basin. Because of its height, the proposed tower will affect the visual landscape within the surrounding area, which includes a mix of industrial and residential uses. However, the Project site is zoned for industrial uses, and the City has historically permitted such towers within the industrial zone districts.

Therefore, the Proposed Project will have a **Less Than Significant Impact**.

- d. *Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

The Proposed Project will create a new source of light and glare that is typical of an office building and industrial facility, including building lights, parking area lights, and security lights. Policy NR-6.4 of the 2030 General Plan addresses new sources of light and glare. This Policy states, "Require that new lighting be designed and configured to minimize light pollution, glare, and spillage."

The City's *Industrial Residential Design Expectations* ("Expectations") require security and safety lighting for on-site areas such as parking, loading, shipping, receiving, pathways, and working areas. Page 11 of the Expectations requires lighting to be adequate, but not overly bright, and also requires light spread to be confined within the site boundaries. Prior to the approval of the Proposed Project's Improvement Plans, the Project Proponent/Developer will be required to submit a Lighting Plan to the City's Public Services Director for review and approval. Said Lighting Plan will ensure the Proposed Project complies with General Plan Policies and City development standards. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

#### **MITIGATION MEASURES:**

Mitigation is not required for this topic.

## 2. AGRICULTURE AND FORESTRY RESOURCES: WOULD THE PROJECT:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
<p>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, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the Project:</p>				
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?			X	
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?			X	
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))?			X	
d) Result in the loss of forest land or conversion of forest land to non-forest use?			X	
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?			X	

### IMPACT ANALYSIS

The following discussion is an analysis for criteria (a), (b), (c), (d), and (e):

- Would the project convert Prime Farmland, Unique Farmland, 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?
- Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

- c. *Would the project 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 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?*
- d. *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*
- e. *Would the project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?*

The Project site is surrounded by urban uses and specifically, Greger Street, residential, and industrial uses to the north, agriculture uses to the south, industrial uses to the west, and Kaufman Road and industrial uses to the west. The Project site is fallow ground and is not actively farmed. Based on a review of the City's 2030 General Plan, the Project site is not considered to be Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. According to Figure 4.1-1 of the 2030 General Plan EIR, the Proposed Project is located on land considered to be "Urban and Built-Up Land." The Project site also does not contain a current Williamson Act Contract.

The Project site is zoned for L-M, Limited Industrial land uses and the Proposed Project would not result in the conversion of forest land to a non-forest use. Finally, the Proposed Project will not result in the conversion of Farmland as the Project site is not considered to be farmland by the City's 2030 General Plan and EIR.

Therefore, the Proposed Project will have a **Less Than Significant Impact**.

**MITIGATION MEASURES:**

Mitigation is not required for this topic.

### 3. AIR QUALITY -- WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
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?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

### REGULATORY SETTING

The Proposed Project is located in Stanislaus County which is a portion of the San Joaquin Valley Air Basin (SJVAB). Air quality management under the Federal and State Clean Air Acts is the responsibility of the San Joaquin Valley Air Pollution Control District (SJVAPCD).

The Federal and State governments have adopted ambient air quality standards (AAQS) for the primary air pollutants of concern, known as "criteria" air pollutants. Air quality is managed by the SJVAPCD to attain these standards. Primary standards are established to protect public health; secondary standards are established to protect public welfare. The attainment statuses of the SJVAB for Stanislaus County with respect to the applicable AAQS are shown in the table below.

The SJVAB is considered non-attainment for ozone and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), because the AAQS for the pollutants are sometimes exceeded. The SJVAB is Attainment/Unclassified for carbon monoxide, but select areas, not including the City of Oakdale, are required to abide by adopted carbon monoxide maintenance plans.

The California Air Resources Board (CARB) through the Air Toxics Program is responsible for the identification and control of exposure to air toxics, and notification of people that are subject to significant air toxic exposure. A principal air toxic is diesel particulate matter, which is a component of diesel engine exhaust.



The SJVAPCD has adopted regulations establishing control over air pollutant emissions associated with land development and related activities. These regulations include:

Regulation VIII (Fugitive Dust Rules)

Rule 4101 (Visible Emissions)

#### SAN JOAQUIN VALLEY FEDERAL AND STATE AAQS ATTAINMENT STATUS

Pollutant	Designation / Classification	
	Federal Standards <sup>a</sup>	State Standards <sup>b</sup>
Ozone, 1-hour	No Federal standard <sup>f</sup>	Nonattainment / Severe
Ozone, 8-hour	Nonattainment / Extreme <sup>e</sup>	Nonattainment
PM10	Attainment <sup>c</sup>	Nonattainment
PM2.5	Nonattainment <sup>d</sup>	Nonattainment
Carbon Monoxide	Attainment / Unclassified	Attainment / Unclassified
Nitrogen Dioxide	Attainment / Unclassified	Attainment
Sulfur Dioxide	Attainment / Unclassified	Attainment
Lead (particulate)	No designation/Classification	Attainment
Hydrogen Sulfide	No Federal standard	Unclassified
Sulfates	No Federal standard	Attainment
Visibility-Reducing Particles	No Federal standard	Unclassified
Vinyl Chloride	No Federal standard	Attainment

<sup>a</sup>See 40 CFR Part 81

<sup>b</sup>See CCR Title 17 Sections 60200-60210

<sup>c</sup>On September 25, 2008, EPA redesignated the San Joaquin Valley to Attainment for the PM10 National AAQS and approved the PM10 Maintenance Plan

<sup>d</sup>The Valley is designated nonattainment for the 1997 PM2.5 NAAQS. EPA designated the Valley as nonattainment for the 2006 PM2.5 on November 13, 2009 (effective December 14, 2009).

<sup>e</sup>Though the Valley was initially classified as serious nonattainment for the 1997 8-hour ozone standard, EPA approved reclassification of the Valley to extreme nonattainment in the Federal Register on May 2010 (effective June 4, 2010).

<sup>f</sup>Effective June 15, 2005, the EPA revoked the Federal 1-hour ozone standard, including associated designations and classifications. EPA has previously classified the SJV as extreme nonattainment for this standard. EPA approved the 2004 Extreme Ozone Attainment Demonstration Plan on March 8, 2010 (effective April 7, 2010). Many applicable requirements for extreme 1-hour ozone nonattainment areas continue to apply to the SJVAB.

The SJVAPCD has adopted a CEQA impact analysis guideline titled *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI). The GAMAQI is utilized in the following air quality impact analysis where applicable. The GAMAQI establishes impact significance thresholds for the non-attainment pollutant PM10 and precursors to the non-attainment pollutant ozone: reactive organic gases (ROG) and oxides of nitrogen (NOx).

Pollutant/Precursor	Construction Emissions	Operational Emissions	
		Permitted Equipment and Activities	Non-Permitted Equipment and Activities
	<i>Emissions (tpy)</i>	<i>Emissions (tpy)</i>	<i>Emissions (tpy)</i>
CO	100	100	100
NO <sub>x</sub>	10	10	10
ROG	10	10	10
SO <sub>x</sub>	27	27	27
PM <sub>10</sub>	15	15	15
PM <sub>2.5</sub>	15	15	15

Projects that do not generate emissions in excess of these thresholds are considered to have less than significant air quality impacts. Furthermore, within the GAMAQI, the SJVAPCD has established and outlined a three-tiered approach to determining significance related to a project's quantified ozone precursor emissions. Each tier or level requires a different degree of complexity of emissions calculation and modeling to determine air quality significance. The three-tiers established to date (from least significant to most significant) are: *Small Project Analysis Level (SPAL)*, *Cursory Analysis Level (CAL)*, and *Full Analysis Level (FAL)*. In each of the tiers, the SJVAPCD has pre-calculated the emissions on a large number and types of projects to identify the level at which they have no possibility of exceeding the emissions thresholds. Table 2 of the GAMAQI, dated November 13, 2020 includes the threshold for government office building projects as resulting in less than 40,000 square, less than 1000 Average Daily One-Way Trips for all fleet types (except Heavy-Heavy Duty Trucks (HHDT), and less than 15 Average Daily One-Way Trips for HHDT only. Table 4b includes the threshold for unrefrigerated warehouse – no rail projects as resulting in less than 190,000 square feet, less than 140 Average Daily One-Way Trips for all fleet types (except HHDT), and less than 15 Average Daily One-Way Trips for HHDT only.

In accordance with Table 2 of the GAMAQI, the Proposed Project is considered to be a small project, as it would not cross the SJVAPCD adopted threshold of 40,000 square feet, not exceed 1,000 daily trips, as indicated in the Traffic Impact Assessment, dated May 23, 2022, prepared by KD Anderson & Associates, Inc (429 daily trips for government office building), and not exceed 15 HHDT trips. In accordance with Table 4b, the Proposed Project is considered to be a small project, as it would not cross the SJVAPCD adopted threshold of 190,000 square feet, not exceed 140 daily trips, as indicated in the Traffic Impact Assessment (62 daily trips for warehouse), and not exceed 15 HHDT trips. Because the Proposed Project qualifies as small project, GAMAQI notes it is reasonable to conclude that the Proposed Project would not exceed applicable thresholds of significant for criteria pollutants.

## IMPACT ANALYSIS

a. *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

The Proposed Project would result in air emissions during its construction phase and during its operational phase. Construction emissions would be generated by construction equipment used during the site preparation and infrastructure/building construction processes. Operational emissions would be generated primarily by vehicles and indirectly by use of electricity. As noted above, the City

of Oakdale is located within the San Joaquin Valley Air Basin (SJVAB) and air quality management under Federal and State clean air acts is the responsibility of the San Joaquin Valley Air Pollution Control District (SJVAPCD).

The SJVAPCD has published comprehensive guidance on evaluating, determining the significance of, and mitigating air quality impacts of projects and plans. As noted in the above discussion, the Air District's guidance is contained in its *Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI)* and within the California Environmental Quality Act (CEQA) Guidelines. Because the Proposed Project is considered to be relatively small (51,630 square feet), the analysis of air quality impacts focuses on whether the Proposed Project meets the air district screening criteria for projects having a less than significant impact.

In accordance with Table 2 of the GAMAQI, the Proposed Project is considered to be a small project, as it would not cross the SJVAPCD adopted threshold of 40,000 square feet, not exceed 1,000 daily trips, as indicated in the Traffic Impact Assessment, dated May 23, 2022, prepared by KD Anderson & Associates, Inc (429 daily trips for government office building), and not exceed 15 HHDT trips. In accordance with Table 4b, the Proposed Project is considered to be a small project, as it would not cross the SJVAPCD adopted threshold of 190,000 square feet, not exceed 140 daily trips, as indicated in the Traffic Impact Assessment (62 daily trips for warehouse), and not exceed 15 HHDT trips. Because the Proposed Project qualifies as small project, the impacts for criteria pollutants would not be potentially significant and detailed air quality assessment is not needed.

The Proposed Project does not exceed the threshold established by the Air District and therefore, will have a **Less Than Significant Impact**.

- b. *Would the project 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?*

The SJVAPCD has adopted a CEQA impact analysis guideline titled *Guide for Assessing and Mitigating Air Quality Impact (GAMAQI)*. The GAMAQI is utilized in the following air quality impact analysis where applicable. The GAMAQI establishes impact significant thresholds for the non-attainment pollutant PM10 and precursors to the non-attainment pollutant ozone: reactive organic gases (ROG) and oxides of nitrogen (NOx). As noted in the table above, the following are the SJVAPCD thresholds:

CO	100 tons/year
ROG	10 tons/year
NOx	10 tons/year
SOx	27 tons/year
PM10	15 tons/year
PM2.5	15 tons/year

Air quality impacts are evaluated using the California Emissions Estimator Model (CalEEMod) for the proposed construction and operational emissions. CalEEMod is a Statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects.

### Construction Emissions

Construction of the Proposed Project would generate temporary criteria pollutant emissions primarily due to the operation of construction equipment and truck trips. Site preparation and grading typically generate the greatest amount of emissions due to the use of grading equipment and soil hauling.

As shown in the table below, the construction emissions will not exceed the SJVAPCD thresholds of 100 tons/year of CO, 10 tons/year of ROG and NOx, 15 tons/year of PM10 and PM2.5 and 27 tons/year of SOx. Complete results from the CalEEMod and assumptions are included in Appendix A.

**Table 3-1 Construction Emissions (Unmitigated)**

Pollutant/Precursor	Construction Emissions (tpy)	SJVAPCD Significance Threshold (tpy)	Significant Impact?
CO	n/a	100	No
NOx	3.0809	10	No
ROG	n/a	10	No
SOx	n/a	27	No
PM10	0.1357	15	No
PM2.5	n/a	15	No
See Appendix A for CalEEMod worksheets. tpy – tons per year			

As shown above, the construction emissions associated with the Proposed Project are projected to be less than the applicable thresholds for all criteria pollutants. Even for projects that would not generate construction emissions exceeding these thresholds, SJVAPCD requires implementation of Mitigation Measures, such as Regulation VIII Control Measures (soil stabilization, watering, dust mitigation, etc.). Therefore, the Proposed Project will have a **Less Than Significant Impact**.

### Operational Emissions

As discussed above, the SJVAPCD screening level size regarding operational criteria pollutants for the land use category of “government office building” is 40,000 square feet units, less than 1,000 Average Daily One-Way Trips for all fleet types (except Heavy-Heavy Duty Trucks (HHDT)), and less than 15 HHDT trips. Additionally, the land use category of “unrefrigerated warehouse – no rail” is 190,000 square feet, less than 140 daily trips, and less than 15 HHDT trips. The Proposed Project is below the SJVAPCD screening size and will have a **Less Than Significant Impact**.



**Table 3-2 Operational Emissions (Unmitigated)**

Pollutant/Precursor	Operational Emissions (tpy)	SJVAPCD Significance Threshold (tpy)	Significant Impact?
CO	n/a	100	No
NOx	0.2709	10	No
ROG	n/a	10	No
SOx	n/a	27	No
PM10	0.3585	15	No
PM2.5	n/a	15	No
See Appendix A for CalEEMod worksheets. tpy – tons per year			

As shown above, the Proposed Project air quality impacts as it relates to operational impacts are below the Air District's Thresholds of Significance. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

Cumulative development projects in the project vicinity could have a cumulatively significant effect on air quality impacts associated with construction activity. However, construction related activities are temporary in nature. In addition, as shown above, the project operational impacts are below the threshold of significance for the Air District. As a result, the Proposed Project will have a **Less Than Significant Impact**.

In addition, the Applicant/Project Proponent, in accordance with SJVAPCD Rule 9510, has completed the Indirect Source Review process with the SJVAPCD. On June 24, 2021, the SJVAPCD issued an Air Impact Assessment (AIA) Application Approval and an approved Monitoring and Reporting Schedule. The Proposed Project will be required to comply with the District Enforced Reduction Measures provided in this approval. It is important to note that the AIA approval concluded that the emissions generated by the Proposed Project were/are less than the thresholds required by the SJVAPCD. Therefore, the Proposed Project will have a **Less Than Significant Impact**. The AIA approval is included in this Initial Study in Appendix A.

*c. Would the project expose sensitive receptors to substantial pollutant concentrations?*

The Proposed Project will result in short-term air quality impacts resulting from construction activities and would not involve long-term operation of any stationary diesel engine or other major on-site stationary source of Toxic Air Contaminants (TACs). Construction activities have the potential to generate emissions related to the number and types of equipment typically associated with construction. Off-road heavy-duty diesel equipment used for site grading, paving, and other construction activities result in the generation of TACs. However, construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the Proposed Project. Because health risks associated with exposure to any TACs are correlated with high concentrations over a long period of exposure (e.g., over a 70-year lifetime), the temporary, intermittent construction-related TAC emissions would not be expected to cause any health risks to

nearby sensitive receptors. Overall, the Proposed Project would not generate emissions of, or expose any nearby existing sensitive receptors to, TACs. Furthermore, compliance with SJVAPCD Regulation VIII would reduce future development and construction emissions to a **Less Than Significant Level**.

- d. *Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

Odors are typically associated with industrial projects involving the use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing processes, as well as sewage treatment facilities and landfills. The Proposed Project involves a Site Plan Review and Architecture Review to allow for the development of a new office and maintenance facility that will include five (5) buildings for a total of 51,630 square feet. Construction may result in emissions that would lead to odors, such as idling diesel trucks and construction equipment. However, construction of the Proposed Project is temporary and as noted previously, the Proposed Project is primarily surrounded by existing commercial and industrial development. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

**MITIGATION MEASURES:**

Mitigation is not required for this topic.

#### 4. BIOLOGICAL RESOURCES -- WOULD THE PROJECT:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X	
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 Game or U.S. Fish and Wildlife Service?			X	
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			X	
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?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
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?				X

#### IMPACT ANALYSIS

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

Figure NR-1 of the 2030 General Plan defines the habitat type for the Proposed Project as “Urban.” Based on a review of the 2030 General Plan EIR, urban areas are not typical habitats for species identified as candidate, sensitive, or special status. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

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

Figure NR-1 of the 2030 General Plan defines the habitat type for the Proposed Project as “Urban.” Based on a review of the 2030 General Plan EIR, urban areas are not typical habitat for species identified as candidate, sensitive, or special status. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

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

Based on a review of Section 4.11 of the 2030 General Plan EIR, federally protected wetlands within the City of Oakdale primarily occur along the Stanislaus River corridor, which is located north of the Project site. The Project site itself does not contain any identified or known wetlands that would be considered to be federally protected. As noted previously, the Project site consists of raw fallow ground surrounded by urban development and uses. Therefore, consistent with the 2030 General Plan EIR, the Proposed Project will have a **Less Than Significant Impact**.

- d. *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native residents or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Section 4.11 of the 2030 General Plan EIR determined that primary migratory corridors available to wildlife are limited to the Stanislaus River and its associated riparian zone. The Proposed Project is not located near the Stanislaus River or within its associated riparian zone. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

- e. *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

The City of Oakdale has developed and adopted a Tree Preservation Ordinance. Prior to removal of any tree meeting the criteria below, a Tree Removal Permit must be obtained from the City. A Tree Removal Permit is required for the following:

- For any non-oak tree with a trunk diameter of 24 inches or greater measured at three (3) feet above the ground.

- For any oak tree with a trunk diameter of 3 inches or greater measured at three (3) feet above the ground.

The Proposed Project does not include the removal of any trees within the Project site. The Project site consists of raw, fallow, and undeveloped land. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

- f. *Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

There are no Habitat Conservation Plans, Natural Community Conservation Plans, or other local, regional, or State Habitat Conservation Plan within the City of Oakdale. Therefore, the Proposed Project will have **No Impact**.

**MITIGATION MEASURES:**

Mitigation is not required for this topic.



## 5. CULTURAL RESOURCES -- Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?			X	
c) Disturb any human remains, including those interred outside of formal cemeteries?			X	

### IMPACT ANALYSIS

- Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?
- Would the project cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?

According to the 2030 General Plan Environmental Impact Report (EIR), the Central California Information Center (CCIC) conducted a detailed search for prehistoric and historic resources within the Oakdale city limits, Sphere of Influence (SOI) and immediate vicinity in 2009. In addition to the CCIC survey, in 1986 the City of Oakdale, with some funding provided by the California Office of Historic Preservation, commissioned a survey to identify historic resources in the City. A total of 257 buildings dated from 1870 to 1940 were recorded. Of the 257 resources surveyed, 200 were determined to be eligible for the National Register of Historic Places (NRHP) and 49 were determined as potentially eligible under various conditions. The City's historic commercial core is focused on F Street/Yosemite Avenue intersection with the First National Bank Building, built in 1909 and the only NRHP-listed building in town.

According to the 2030 General Plan EIR, there is no presence of Native American resources in the Oakdale planning area, including the Proposed Project site. However, per 2030 General Plan Implementation Measure NR-IP10, if during construction any subsurface cultural resources, paleontological resources, or human remains are encountered, all work within 100 feet of the discovery be stopped and the area protected from further disturbance until the discovery is evaluated by a qualified professional. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

- c. *Would the project disturb any human remains, including those interred outside of dedicated cemeteries?*

It is not anticipated that the Proposed Project will disturb any human remains. However, through development and construction of the Proposed Project, human remains may be identified, particularly during activities requiring ground disturbance (i.e. grading, trench digging, etc.). As such, the Proposed Project shall comply with Section 15064.5(e) of the CEQA Guidelines and Implementation Program NR-IP10 of the City's 2030 General Plan. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

**MITIGATION MEASURES:**

Mitigation is not required for this topic.

**6. ENERGY -- Would the project:**

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?			X	

**IMPACT ANALYSIS**

The following discussion is an analysis for criteria (a) and (b):

- Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*
- Would the project conflict with or obstruct a State or local plan for renewable energy or energy efficiency?*

The Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in Title 24, Part 6, of the California Code of Regulations (Title 24), was established in 1978 in response to a legislative mandate to reduce California's energy consumption. Title 24 is updated approximately every three (3) years, and the 2019 Title 24 went into effect on January 1, 2020.

The California Green Buildings Standards Code (CALGreen) establishes mandatory green building standards for buildings in California. CALGreen was developed to reduce Greenhouse Gas (GHG) emission from buildings, promote environmentally responsible and healthier places to live and work, reduce energy and water consumption, and respond to environmental directives. The most recent update to CALGreen went into effect January 1, 2020, and covers five (5) categories: planning and design, energy efficiency, water efficiency and conservation, material and resource efficiency, and indoor environmental quality.

The Proposed Project will be required to comply with all California Green Building Code Standards, including Energy Efficient standards for nonresidential buildings.

The anticipated construction schedule assumes that the Proposed Project will be built over a twenty (20) year period. The Proposed Project will require site preparation, grading, paving, architectural coating, and trenching. The site is vacant and will not require the demolition of any existing structures, except for a fenced storage yard. Implementation of applicable 2030 General Plan Goals, Policies and Implementation Measures as it relates to Air Quality, Energy, Utilities, etc. would reduce energy waste from construction. In addition, as noted in Section 8 of this Initial Study, the Proposed Project is in compliance with the City's adopted Climate Action Plan. Therefore, the Proposed Project



would not consume energy in a manner that is wasteful, inefficient, or unnecessary. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

***MITIGATION MEASURES:***

Mitigation is not required for this topic.

## 7. GEOLOGY AND SOILS -- WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
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.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	

## IMPACT ANALYSIS

- a.1. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake, 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?*
- a.2. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?*
- a.3. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?*
- a.4. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?*

According to the 2030 General Plan Environmental Impact Report (EIR), the Ortigalita fault in the southernmost corner of Stanislaus County is approximately 45 miles southwest of Oakdale and is the only fault formed in the Central Valley that is sufficiently active to have been mapped and zoned by the California Geological Survey (CGS). Sporadic earthquake activity in the Central Valley near Stanislaus County may be associated with the Tracy-Stockton, Vernalis, or San Joaquin faults, approximately 25 miles northwest, west and southwest of Oakdale, respectively. According to the 2030 General Plan EIR, there is no evidence to suggest that either of these faults is likely to cause surface displacement in the City.

In addition, the Geological Engineering Study, prepared by Condor, also concluded that the landslide hazard risk for the project is low and that no additional evaluation or mitigation is required. The Geological Engineering Study is included in this Initial Study as Appendix B.

Based on the analysis contained above and in Appendix B, the Proposed Project will have a **Less Than Significant Impact**.

- b. Would the project result in substantial soil erosion or the loss of topsoil?*

According to the Geological Engineering Study, the surface soil should be stripped of vegetation and organic topsoil with more than 2 percent organic material by dry weight. However, the survey states that the site is relatively free of vegetation and that stripped organic soil and vegetative material may be stockpiled for later use in landscape areas if approved by the Architect of Owner. Additionally, the site will be paved during installation of improvements.

Based on the analysis contained above, Proposed Project will have a **Less Than Significant Impact**.

- c. Would the project be located on a geologic unit or soil that is unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?*

According to the Geological Engineering Study, borings and test pits at the site did not encounter any loose cohesionless soil and that the published historic high groundwater near the site is at least 100 feet deep. Condor concluded that the potential for liquefaction and seismically induced settlement is low, and that no additional mitigation for these hazards is required.

Based on the analysis contained above, the Proposed Project will have a **Less Than Significant Impact**.

- d. *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?*

Based on a review of the Proposed Project's Geological Engineering Survey, the Proposed Project is not located in an area known to contain expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994). Therefore, the Proposed Project will have **No Impact**.

- e. *Would the project 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?*

The Proposed Project will connect to the City's wastewater system via connections in Greger Street and perhaps Kaufman Road and the use of septic tanks or alternative wastewater disposal systems is not required. Therefore, the Proposed Project will have **No Impact**.

- f. *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Based on a review of the 2030 General Plan EIR, the Project site is not known to contain any unique paleontological or geologic features. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

#### **MITIGATION MEASURES:**

Mitigation is not required for this topic.

## 8. GREENHOUSE GAS EMISSIONS -- WOULD THE PROJECT:

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

### REGULATORY SETTING:

California Air Resources Board (CARB) is responsible for the coordination and oversight of state and local air pollution control programs in California. California has numerous regulations aimed at reducing the State's GHG emissions. These initiatives are summarized below:

#### *Assembly Bill 1943*

Assembly Bill (AB) 1943 (2002), California's Advanced Clean Cars program (referred to as "Pavley"), requires CARB to develop and adopt regulations to achieve "the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles." On June 30, 2009, U.S. EPA granted the waiver of Clean Air Act preemption to California for its greenhouse gas emission standards for motor vehicles beginning with the 2009 model year. Pavley I took effect for model years starting in 2009 to 2016 and Pavley II, which is now referred to as "LEV (Low Emission Vehicle) III GHG" will cover 2017 to 2025. Fleet average emission standards would reach 22 percent reduction from 2009 levels by 2012 and 30 percent by 2016. The Advanced Clean Cars program coordinates the goals of the Low Emission Vehicles (LEV), Zero Emissions Vehicles (ZEV), and Clean Fuels Outlet programs and would provide major reductions in GHG emissions. By 2025, when rules will be fully implemented, new automobiles will emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions from their model year 2016 levels.

#### *Executive Order S-3-05*

In 2005, the governor issued Executive Order (EO) S-3-05, establishing statewide GHG emissions reduction targets. EO S-3-05 provides that by 2010, emissions shall be reduced to 2000 levels; by 2020, emissions shall be reduced to 1990 levels; and by 2050, emissions shall be reduced to 80 percent below 1990 levels (California Environmental Protection Agency [CalEPA]). In response to EO S-3-05, CalEPA created the Climate Action Team (CAT), which in March 2006 published the Climate Action Team Report (the "2006 CAT Report") (CalEPA 2006). The 2006 CAT Report identified a recommended list of strategies that the state could pursue to reduce GHG emissions. These are strategies that could be implemented by various state agencies to ensure that the emission reduction targets in EO S-3-05 are met and can be met with existing authority of the state agencies. The strategies include the reduction of passenger and light duty



truck emissions, the reduction of idling times for diesel trucks, an overhaul of shipping technology/infrastructure, increased use of alternative fuels, increased recycling, and landfill methane capture, etc. In April 2015 the governor issued EO B-30-15, calling for a new target of 40 percent below 1990 levels by 2030.

#### *Assembly Bill 32*

California's major initiative for reducing GHG emissions is outlined in Assembly Bill 32 (AB 32), the "California Global Warming Solutions Act of 2006," signed into law in 2006. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 (essentially a 15 percent reduction below 2005 emission levels; the same requirement as under S-3-05), and requires CARB to prepare a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. California is on track to meet or exceed the current target of reducing GHG emission to 1990 levels by 2020, as established by AB 32.

#### *Senate Bill 97*

Senate Bill (SB) 97, signed in August 2007, acknowledges that climate change is an environmental issue that requires analysis in California Environmental Quality Act (CEQA) documents. In March 2010, the California Resources Agency (Resources Agency) adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts.

#### *CARB Resolution 07-54*

CARB Resolution 07-54 establishes 25,000 MT of GHG emissions as the threshold for identifying the largest stationary emission sources in California for purposes of requiring the annual reporting of emissions. This threshold is just over 0.005 percent of California's total inventory of GHG emissions for 2004.

#### *Senate Bill 375*

Senate Bill (SB) 375, signed into law in September 2008, builds on AB 32 by requiring CARB to develop regional GHG reduction targets to be achieved from the automobile and light truck sectors for 2020 and 2035; these regional targets will help achieve the goals of AB 32 and the Scoping Plan through changed land use patterns and improved transportation systems. The Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG) adopted a Sustainable Community Strategies in July 2013 that meets greenhouse gas reduction targets. The *Plan Bay Area* is the SCS document for the Bay Area, which is an integrated long-range plan that discusses climate protection, housing, healthy and safe communities, open space and agricultural preservation, equitable access, economic vitality, and transportation system effectiveness within the San Francisco Bay Area. The document is updated every four years and most recently, the update, *Plan Bay Area 2040* was adopted on July 26, 2017.

### *Executive Order S-13-08*

Executive Order S-13-08 indicates that “climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California’s economy, to the health and welfare of its population and to its natural resources.” Pursuant to the requirements in the order, the 2009 California Climate Adaptation Strategy (California Natural Resources Agency 2009) was adopted, which is the “...first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States.” Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

### *Senate Bill 2X*

In April 2011, the governor signed SB2X requiring California to generate 33 percent of its electricity from renewable energy by 2020.

### *Senate Bill 32*

On September 8, 2016, the governor signed Senate Bill 32 (SB 32) into law, which requires the State to further reduce GHGs to 40 percent below 1990 levels by 2030. SB 32 is an extension of AB 32. The other provisions of AB 32 remain unchanged. CARB adopted the 2017 Climate Change Scoping Plan Update on December 14, 2017 for achieving California’s 2030 greenhouse gas target.

### *City of Oakdale Climate Action Plan*

In 2013, per Resolution No. 2013-83, the Oakdale City Council adopted a Climate Action Plan. The City’s Climate Action Plan (CAP) serves to outline the strategies, goals, and actions for reducing municipal and community-wide greenhouse gas (GHG) emissions. According to the 2005 Community-Wide Greenhouse Gas Inventory, the City emitted 210,949 metric tons (MT) of carbon dioxide equivalents (CO<sub>2</sub>e), including residential, commercial, industrial, and municipal operations emissions. Chapter 5 of the CAP provides the GHG reduction goals and strategies. The City’s CAP is available for review at the City’s Public Services Department located at 455 S. Fifth Avenue, Oakdale, CA 95361 or on the City’s website: [www.oakdalegov.com](http://www.oakdalegov.com)

## **IMPACT ANALYSIS**

The following discussion is an analysis for criteria (a) and (b):

- a. *Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?*
- b. *Would the project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

California Code of Regulations (CCR) Title 24, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. Since then, Title 24 standards were adopted in response to the requirements of AB 32. Specifically, new development projects within California after January 1, 2011, are subject to mandatory planning and design, energy efficiency, water efficiency and conservation, material conservation and resources efficiency, and environmental quality measures of the California Green Building Standards (CAL Green) Code (California Code of Regulations, Title 24, Part 11. As such, it is anticipated that the Proposed Project will not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment or conflict with any plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gasses. As discussed above, the City of Oakdale has an adopted Climate Action Plan (CAP) in which includes Reduction Goals and Strategies to be implemented to reduce GHG emissions and work toward the reduction target.

The Proposed Project is consistent with the applicable goals and strategies of the CAP and these strategies can be quantified in terms of the GHG reduction as defined in the CAP.

**Table 8-1 – Summary of Proposed Project GHG Reduction Impacts**

Strategy No.	Supporting Strategy	Annual GHG Reduction Potential (MT CO <sub>2</sub> e)
E.2.2	Promote small scale On-site Renewable Energy for Commercial and Industrial Uses	5,036
E.1.7	Establish and Monitor Shade Tree Program	868
TLU.3.2	Plan and Build out Bicycle Network and Provide Bicycle Facilities	126
TLU.3.3	Provide Pedestrian Network Improvements	519
<b>Total Annual Reduction</b>		<b>12,472</b>

As depicted above in Table 8-1, the Proposed Project implements select strategies in the City's adopted CAP, which results in an annual reduction in GHG emissions by 5,923 MT CO<sub>2</sub>e. This is achieved by requiring the Project Proponent to comply with state mandated Building Energy Efficiency requirements, requiring each home to be equipped by solar power, requiring one (1) tree planted per lot, and installing improvements necessary to connect the Proposed Project to the existing Bridle Ridge Bicycle/Pedestrian Trail.

Therefore, the Proposed Project is consistent with the City's CAP and as a result, further GHG emissions analysis and mitigation under CEQA Guidelines Section 15064(h) and 15013.5(b)(2) is not required. As such, the Proposed Project will have a **Less Than Significant Impact**.

#### **MITIGATION MEASURES:**

Mitigation is not required for this topic.

## 9. HAZARDS AND HAZARDOUS MATERIALS -- WOULD THE PROJECT:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
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?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?			X	
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?			X	

### IMPACT ANALYSIS

- Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- Would the project 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?

Should the release of hazardous materials occur, or if hazardous materials need to be used, transported, or disposed, the Project Proponent shall comply with all applicable Federal, State, and local policies and regulations related to hazardous materials. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

- c. *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?*

The nearest school to the Project site is Oakdale High School, which is located approximately 1,600-feet north of the Project site, which is further than 0.25 miles. In addition, any handling of hazardous or acutely hazardous materials, substances or waste would be required to comply with Federal, State, and local policies and regulations related to hazardous materials, including General Plan Policies. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

- d. *Would the project be located on a site included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

Table 4.8-1 of the City's 2030 General Plan EIR provides a list of sites within the City of Oakdale that is considered to be a hazardous materials site in accordance with Section 65962.5 of the Government Code. The Project site is not identified as a site known as a "hazardous materials site." Therefore, the Proposed Project will have a **Less Than Significant Impact**.

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

The nearest airport to the Proposed Project site is the Oakdale Municipal Airport, located south of Sierra Road, southeast of the Oakdale city limits.

Based on a review of Map OAK-1 Stanislaus County Airport Land Use Compatibility Plan, dated October 2016, the Project site is not located within the Oakdale Municipal Airport's Airport Influence Area. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

- f. *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

Based on a review of Section 4.8 of the City's 2030 General Plan EIR, and according to the Stanislaus County Multi-Jurisdictional Hazard Mitigation Plan, State Route 120/108 is identified as an emergency evacuation route in the City and County. The Proposed Project is not located on or near State Route 120/108 and thereby will not physically interfere with the implementation of the County's emergency



response or evacuation plan. In the case that an emergency evacuation is required, the Proposed Project can access State Route 120/108 via Yosemite Avenue, Willowood Avenue, or Crane Road.

Therefore, the Proposed Project will have a **Less Than Significant Impact**.

- g. *Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?*

The Proposed Project is not located within an area considered to be wildland. As noted previously, the Proposed Project is located within an urban area of the City of Oakdale and is surrounded by urban uses. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

**MITIGATION MEASURES:**

Mitigation is not required for this topic.

# 10. HYDROLOGY AND WATER QUALITY -- Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?		X		
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
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:			X	
i) Result in substantial on- or offsite erosion or siltation;			X	
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;			X	
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			X	
iv) Impede or redirect flood flows?			X	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

## IMPACT ANALYSIS

- Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Construction activities associated with the Proposed Project would cause disturbance of soil during excavation work, which could adversely affect water quality. Contaminants from construction vehicles and equipment and sediment from soil erosion could increase the pollutant load in runoff being transported to receiving waters during development. Any construction activities, including grading, that would result in the disturbance of one (1) acre or more would require compliance with the Regional Water Quality Control Board (Regional Water Board) General Permit for Storm Water Discharge Associated with Construction and Land Disturbance Activity (Construction General Permit). The Project site is 9.64 acres and would be subject to the provision of the Construction General Permit, which requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) designed to reduce potential adverse impacts on surface water quality through the project construction period.

Operation of the Proposed Project could be a source of various storm water pollutants. Pollutants associated with the proposed industrial and office development may include those associated with vehicle parking and landscaping, including oil and grease; organic compounds such as pesticides; and trash and debris. Such pollutants may also be present in non-storm water discharges, such as runoff from landscape irrigation. Operation of the project would be subject to the Regional Water Board's Municipal Regional Permit (MRP), implemented in October 2009 by Order R2-2009-0074. Provision C3 of the MRP addresses new development and redevelopment projects. The entire Project site, consisting of all new impervious surfaces, must be included in the treatment system design (i.e., storm water treatment systems must be designed and sized to treat storm water from the entire project). A Stormwater Control Plan (SCP) must be prepared and submitted for the Project site and must detail design elements and implementation measures to meet MRP requirements. The Proposed Project will be required to include Low Impact Development (LID) design measures and a Stormwater Facility Operation and Maintenance Plan must be prepared to ensure that storm water control measures are inspected, maintained, and funded for the life of the project.

The Proposed Project shall comply with the City's 2030 General Plan Policies, including PF-3.3, 3.4 and 3.5. Any potential impacts as a result of this project are required to be mitigated through the General Plan Policies and Regional Water Board requirements. In order to ensure that the project does not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality, Mitigation Measure 10-1 will be incorporated. Therefore, the Proposed Project will have a **Less Than Significant Impact with Mitigation Incorporation**.

- b. *Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

The Proposed Project will connect to the City of Oakdale domestic water system via connecting to an existing water line located in Greger Street. The City of Oakdale provides domestic (potable) water service to all residents and businesses within the City through a system of groundwater wells, storage facilities, and a non-potable system that is intended to reduce demands on the City's potable

groundwater sources. The City of Oakdale adopted an Urban Water Management Plan (UWMP) in January 2009. Per the UWMP, the City of Oakdale currently owns and operates eight (8) wells with a total production capacity of 15,200 gpm<sup>1</sup> and approximately 500,000 gallons of active storage in one (1) steel storage tank. The active wells each produce between 600 and 1,800 gallons per minute (gpm) for a total of 10,100 gpm per day.

Should groundwater be encountered in excavations during installation of underground utilities or other construction facilities, groundwater would be managed in accordance with the SWPPP for the project and permits would be required prior to discharge of the dewatered groundwater to the storm or sanitary sewer. Therefore, no impact on groundwater supplies or recharge would be expected and the Proposed Project will have a **Less Than Significant Impact**.

- c. *Would the project 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 on- or offsite erosion or siltation;*
  - ii. *Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;*
  - 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?*

The Proposed Project will not alter the course of a stream or river, as it is not located near a stream or river. The Project site is located south of the Stanislaus River Corridor and is located on a site that is fallow and undeveloped. Compliance with construction- and operation-phase storm water requirements would ensure that development of the Proposed Project would not result in substantial erosion or siltation on- or off-site. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

- d. *Would the project be located in flood hazard, tsunami, or seiche zones, or risk release of pollutants due to project inundation?*

According to the City's 2030 General Plan Environmental Impact Report (EIR), the Planning Area, including the Project site, is located within the dam failure of both the New Melones and Tulloch dams. In the event of dam failure, the entire City would be inundated if the New Melones Dam failed. A large corridor along Stanislaus River (including the Project site) would be inundated if the Tulloch Dam failed. To minimize the risk of dam failure, the United States Bureau of Reclamation (USBR) ensures safety through required annual inspections for safety deficiencies, and if needed, provides corrective actions based on current engineering practices. The Tulloch Reservoir Dam is under the

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<sup>1</sup> City of Oakdale Urban Water Management Plan, 2009. Assessed December 2016



jurisdiction of the State of California of Safety of Dams (DOSD). As part of DOSD normal routine maintenance program, the DOSD generally inspects all jurisdictional dams at least once per year.

No enclosed surface water bodies, which might be subject to potential impacts from seiches, are located in the Proposed Project vicinity. Based on its location, inland from coastal areas, the Project site would not be subject to tsunami effects. The Project site is not located in an area susceptible to mudflows. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

- e. *Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

The Project site is provided domestic water from the City of Oakdale. The City of Oakdale is located within the Modesto Sub-Basin of the San Joaquin River Hydrologic Region, which is managed by the Stanislaus and Tuolumne Rivers Groundwater Basin Association Groundwater Sustainability Association (STRGPA GSA). The Modesto Sub-Basin is considered a high-priority basin and therefore the STRGPA GSA is required to adopt and begin implementation of a Groundwater Sustainability Plan (GSP) by January 31, 2022. The City of Oakdale will be required to comply with the GSP once adopted.

The City of Oakdale also has an adopted Urban Water Management Plan, with which the Proposed Project will be required to comply.

Therefore, the Proposed Project will have a **Less Than Significant Impact**.

## **MITIGATION MEASURES:**

### Mitigation Measure 10-1:

- The Proposed Project shall comply with the City's 2030 General Plan Policies, including PF-3.3, 3.4 and 3.5.
- The Proposed Project shall comply with the requirements of the Regional Water Board's Construction General Permit.
- The Proposed Project requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) to reduce the potential adverse impacts on surface water quality through the project construction period.
- Operation of the Proposed Project is subject to the Regional Water Board's Municipal Regional Permit.
- A Stormwater Control Plan (SCP) must be prepared and submitted for the Project site and must detail design elements and implementation measures to meet MRP requirements.
- The Proposed Project is required to include Low Impact Development (LID) design measures and a Stormwater Facility Operation and Maintenance Plan must be prepared to ensure that storm water control measures are inspected, maintained, and funded for the life of the project.

## 11. LAND USE AND PLANNING - Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Physically divide an established community?			X	
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?			X	

### IMPACT ANALYSIS

a. *Would the project physically divide an established community?*

The Project site is located within the City of Oakdale and is surrounded by urban uses. The Proposed Project will not physically divide the established City of Oakdale as it is not located between any residential communities. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

b. *Would the project 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?*

As noted previously, the 2030 General Plan designates the Project site for Industrial (IND) land uses, and it is located within the L-M, Limited Industrial zone district. The Proposed Project is currently in conformance with the 2030 General Plan, Zoning Ordinance, and the City's adopted policies and regulations for avoiding or mitigating environmental effects. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

### MITIGATION MEASURES:

Mitigation is not required for this topic.

## 12. MINERAL RESOURCES -- WOULD THE PROJECT RESULT IN:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
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?			X	
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?			X	

### IMPACT ANALYSIS

The following discussion is an analysis for criteria (a) and (b):

- Would the project 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?*
- Would the project 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?*

According to the City's 2030 General Plan EIR, the California Geological survey has defined areas along the Stanislaus River within the City and surrounding area as Mineral Resource Zone 2 (MRZ-2). This designation indicates a high likelihood for occurrence of significant mineral deposits. The Project site is not located within or near the Stanislaus River corridor. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

### MITIGATION MEASURES:

Mitigation is not required for this topic.



### 13. NOISE -- WOULD THE PROJECT RESULT IN:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
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?		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

### IMPACT ANALYSIS

- a. *Would the project result in the 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?*

The Proposed Project will result in additional buildout of the industrial area along Greger Street and increase the average daily trips as employees travel to the office and between the maintenance facility and worksites. The increase in average daily trips will increase the traffic noise exposure levels along Greger Street. The 2030 General Plan considers this increase in traffic noise exposure levels in conjunction with the development allowed under the plan. To mitigate noise-impacted street segments, such as Greger, the 2030 General Plan identifies Noise Implementation Program 2: Require the use of noise-reducing pavements to the extent feasible on noise-impacted street segments, including Greger Street from Crane Road to Yosemite Avenue. With this implementation program, increases in ambient noise levels from traffic will be mitigated and result in a **Less Than Significant Impact**.

Additionally, the administration building and maintenance facility will be required to stay within the Noise Level Standards From Stationary Sources maximum level of 70 dB established in the 2030 General Plan. Considering the nature of the Proposed Project's uses, the Proposed Project is not expected to exceed the maximum level and result in a **Less Than Significant Impact**.



Various types of equipment would be used for construction of the Proposed Project. Noise impacts resulting from construction activities would depend on the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive receptors. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of day (early morning, evening, or nighttime hours), when the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time. The loudest expected phase of construction is grading and earthwork, which would likely include the use of dozers, backhoes, and graders. The Proposed Project is bounded by existing residential uses to the north and west. According to the City's 2030 General Plan Environmental Impact Report (EIR), these areas are considered sensitive receptors. However, the City's 2030 General Plan Policy N-1.11 states: "minimize construction-related noise and vibration by limiting construction activities within 500 feet of noise-sensitive uses to 7:00 a.m. to 6:00 p.m. on weekdays, 8:00 a.m. to 5:00 p.m. on Saturdays, and no construction on Sundays and holidays unless permission for the latter has been granted by the City". Use of construction equipment could be a short-term source of impact on these noise-sensitive uses. In order to ensure that project construction noise levels remain at a level as to not become a nuisance, Mitigation Measure 13-1 will be incorporated. Given the relatively short construction period and limited scope of the project, construction activities, with mitigation incorporated, will result in a **Less Than Significant Impact with Mitigation Incorporation**.

Mitigation Measure 13-1, described below, shall be applied to the Proposed Project.

- b. *Would the project result in generation of excessive groundborne vibration or groundborne noise levels?*

The Proposed Project will result in groundborne vibration and noise levels during project construction, which will be temporary in nature until build-out. Based on a review of the General Plan EIR, groundborne vibration and noise levels are typically caused by heavy equipment used during construction. Notable 2030 General Plan Policies include Policy N-1.11, which limits construction activities during specific hours, and Policy N-1.12, which requires construction activities to be in compliance with Federal Transit Administration criteria, which is provided below:

**Table 13-1 Groundborne Vibration Impact Criteria for General Assessment**

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

During Proposed Project construction, which can be considered an “Occasional Event,” vibration levels must comply with levels defined as Category 2. This is due to the immediate proximity of existing residential uses to the north and west of the Project site. The Project Proponent shall be required to utilize construction equipment that do not exceed the category vibration level of 75.

In addition, the City’s Noise Ordinance (Article XVI of the Municipal Code) mandates that construction activities shall occur between 7:00AM and 6:00PM on weekdays, and 8:00AM and 5:00PM on Saturday. The Proposed Project shall comply with the City’s Noise Ordinance.

The Proposed Project will have a **Less Than Significant Impact**.

- 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?*

The nearest airport to the Proposed Project is the Oakdale Municipal Airport, which is located approximately 2.6 miles from the Proposed Project. Therefore, this topic is not applicable as the Oakdale Municipal Airport is located more than two (2) miles from the Proposed Project.

#### **MITIGATION MEASURES:**

The following mitigation measures shall be incorporated into the Proposed Project:

##### Mitigation Measure 13-1:

Construction equipment shall be well maintained to be as quiet as possible. The following measures, when applicable, shall be implemented to reduce noise from construction activities:

- All internal combustion engine-driven equipment shall be equipped with mufflers that are in good condition and appropriate for the equipment.
- “Quiet” models of air compressors and other stationary noise sources shall be used, where technology exists.
- Stationary noise-generating equipment shall be located as far as feasible from sensitive receptors (dwellings).
- Unnecessary idling of internal combustion engines shall be prohibited.
- Staging areas and construction material storage areas shall be located as far away as possible from adjacent sensitive land uses (dwellings).
- Construction-related traffic shall be routed along major roadways (Yosemite Avenue) and as far as feasible from sensitive receptors.
- Residences or noise-sensitive land uses adjacent to construction sites shall be notified of the construction schedule in writing. The construction contractor shall designate a “construction liaison” that would be responsible for responding to any local complaints (e.g., starting too early, bad muffler,

etc.) and shall institute reasonable measures to correct the problem. The construction contractor shall conspicuously post a telephone number for the liaison at the construction site.

- The construction contractor shall hold a pre-construction meeting with the job inspectors and the general contractor/on-site manager to confirm that noise mitigation and practices (including construction hours, construction schedule, and construction liaison) are completed.

All of the above measures shall be included in the contract specifications that shall be reviewed and approved by the City of Oakdale Public Services Department prior to the start of construction. The above measures would reduce noise generated by the construction of the project to the extent feasible for the project's size.

**14. POPULATION AND HOUSING -- Would the project:**

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

**IMPACT ANALYSIS**

- a. *Would the project induce substantial population in one area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

The Proposed Project consists of developing land with industrial type land uses to create a maintenance yard and professional office building. New homes or businesses are not proposed as part of the Proposed Project since the new facility is being relocated from an existing location in the City. Therefore, there the Proposed Project will not induce substantial population growth and will have a **No Impact**.

- b. *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

The Proposed Project is located on a raw undeveloped parcel that does not contain any existing residential structures. Therefore, the Proposed Project does not displace existing people or housing. As such, the Proposed Project will have **No Impact**.

**MITIGATION MEASURES:**

Mitigation is not required for this topic.



## 15. PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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:				
a) Fire protection?			X	
b) Police protection?			X	
c) Schools?			X	
d) Parks?			X	
e) Other public facilities?			X	

### IMPACT ANALYSIS

- Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 fire protection?*
- Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 police protection?*
- Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 schools?*
- Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 parks?*
- Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 other public facilities?*

The City of Oakdale is provided fire protection services by the City of Modesto. The City of Modesto provides personnel to existing fire stations in the City. The City of Oakdale is served by two (2) stations; Station 4 at 450 South Willowood Drive and Station 5 at 325 East G Street. The Proposed Project will likely be served by Station 4, which is located just west of the Project site. The Proposed Project shall adhere to General Plan Policies CS-2.1 through CS-2.13, including the requirement to pay the City's Fire Capital Facilities Fees to fund the construction of fire protection facilities required to service new growth areas. The Oakdale Police Department (OPD) provides protection services within the City of Oakdale. The City is served by one (1) police station located at 245 North Second Avenue. According to the City's 2030 General Plan Environmental Impact Report (EIR), the department is staffed by twenty-one (21) sworn officers, thirteen (13) professional support staff, seven (7) reserve officers and thirty (30) CAPS volunteers. General Plan Policy CS-1.3 states that the City will "maintain adequate levels of sworn officers, support staff, volunteers, equipment, technology, and training to provide effective and highly visible police protection services within the City." Currently, the calculated ratio of police officers per 1,000 population is 0.94 officers, using the Department of Finance population estimate for the City of 22,348. The Proposed Project will add demand to the OPD operations. However, to offset any impacts to Policy capital infrastructure, the Proposed Project will be required to pay the applicable Capital Facilities Fees. In addition, the Proposed Project will be required to annex into the City's existing Public Safety Community Facilities District (CFD), which participates in alternative financing mechanisms for police and fire services.

The Proposed Project, which consists of developing a new location for OI's maintenance yard and professional office building and office, will not affect school or parks in the City. **Less Than Significant Impact.**

#### **MITIGATION MEASURES:**

Mitigation is not required for this topic.

## 16. RECREATION

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
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?			X	
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?			X	

### IMPACT ANALYSIS

The following discussion is an analysis for criteria (a) and (b):

- 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 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?*

The Proposed Project is an industrial and office type project which will not increase the use of existing recreational facilities. The Proposed Project will not be required to include recreation facilities or require the construction or expansion of recreation facilities.

Therefore, the Proposed Project will have a **Less Than Significant Impact**.

### MITIGATION MEASURES:

Mitigation is not required for this topic.



**17. TRANSPORTATION/TRAFFIC -- WOULD THE PROJECT:**

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

**IMPACT ANALYSIS**

- a. *Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?*
- b. *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

The Project Proponent has provided a Traffic Impact Assessment, dated May 23, 2022, prepared by KD Anderson & Associates, Inc. This Traffic Impact Assessment is included in this Initial Study as Appendix C, and the results of this assessment are summarized herein.

When evaluating traffic impacts associated with the Proposed Project, a comparison was done between the projected traffic volumes anticipated under the City's 2030 General Plan and EIR and the Proposed Project. As noted previously, the existing General Plan land use designation for the Project site is Industrial (IND). The traffic volumes anticipated for each land use are depicted below in Table 17-1.



**Table 17-1 – Site Trip Generation Comparison**

Land Use	ITE Code	Unit/ Quantity	Trip Generation Rates / Forecasts						
			Daily	AM Peak Hour			PM Peak Hour		
				IN	Out	Total	In	Out	Total
Industrial Development									
General Light Industrial	110	1 ksf	4.87	88%	12%	0.74	14%	86%	0.56
Forecast @ max FAR		205.7	1.002	134	18	152	19	115	134
Forecast @ GPEIR FAR		122.8	598	80	11	91	11	69	80
Proposed OID Project									
Government Office Bldg	730	1 ksf	22.59	75%	25%	3.34	25%	75%	1.71
		19.0	429	47	16	63	8	24	32
Warehouse	150	1 ksf	1.71	77%	23%	0.17	28%	72%	0.18
		36.5	62	5	1	6	2	5	7
Project Total			491	52	17	70	10	29	39

As noted above in Table 17-1, the amount of daily traffic generated by the Proposed Project is less than what is currently permissible under the City's 2030 General Plan and EIR.

The Traffic Impact Assessment further concluded that the Proposed Project would add a relatively small amount of traffic to Greger Street and Yosemite Avenue. Greger Street is anticipated to see approximately 491 more average daily trips and this increase would not result in the Level of Service (LOS) for Greger Street to be inconsistent with the General Plan LOS Standard of D. The Traffic Impact Assessment also concluded that the peak hour volume added at the intersections of Yosemite Avenue/Greger Street, Greger Street/Kaufman Road, and Greger Street/S. Willowood Drive would be too small to cause an appreciable effect on the LOS at those locations.

### *Vehicle Miles Traveled (VMT)*

Under current CEQA Statutes and Guidelines, the transportation impacts of a “Project” must be evaluated within the context of alternative transportation modes, safety, and daily Vehicle Miles Traveled, or VMT. VMT is generally the product of the Project’s estimated daily trips and the distance of those trips. Based on the Traffic Impact Assessment, the Proposed Project is anticipated to generate fewer daily trips than would development under the current 2030 General Plan IND land use designation. This is confirmed in Table 17-1. In addition, the Proposed Project is located near Oakdale’s southern residential areas and in proximity to bike lanes and trails that will allow residents to choose that travel mode or to walk/ride a bicycle. The Traffic Impact Assessment concluded that the Proposed Project would help the City meet long term goals for reducing VMT.

Based on the above analysis, the Proposed Project will have a **Less Than Significant Impact**.

- c. *Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

The Proposed Project will consist of roadway improvements (primarily to Kaufman Road) designed and installed per the City’s Standards and Specifications. As such, the Proposed Project will not install improvements that will result in substantially increased hazards. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

- d. *Would the project result in inadequate emergency access?*

The Proposed Project consists of two (2) points of access to Greger Street and two (2) points of access to Kaufman Road. The Proposed Project’s office area is accessed via two driveways and the maintenance facility area is accessed via two driveways. Based on discussions with the City’s Building Official, the Proposed Project provides two (2) points of access to each of the project areas and is adequate for emergency access. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

### **MITIGATION MEASURES:**

Mitigation is not required for this topic.

**18. TRIBAL CULTURAL RESOURCES -- WOULD THE PROJECT:**

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

Effective July 1, 2015, Assembly Bill 52 (AB 52) amended CEQA to mandate consultation with California Native American tribes during the CEQA process to determine whether or not the Proposed Project may have a significant impact on a Tribal Cultural Resource. Section 21073 of the Public Resources Code defines California Native American tribes as "a Native American tribe located in California that is on the contact list maintained by the Native American Heritage Commission for the purposes of Chapter 905 of the Statutes of 2004." This includes both federally and non-federally recognized tribes. Section 21074(a) of the Public Resource Code defines Tribal Cultural Resources for the purpose of CEQA as:

1) Sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

- a. included or determined to be eligible for inclusion in the California Register of Historical Resources; and/or
- b. included in a local register of historical resources as defined in subdivision (k) of Section 5020.1; and/or

- c. 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Because criteria A and B also meet the definition of a Historical Resource under CEQA (see Section 5 of this document), a Tribal Cultural Resource may also require additional (and separate) consideration as a Historical Resource. Tribal Cultural Resources may or may not exhibit archaeological, cultural, or physical indicators.

Recognizing that California tribes are experts in their Tribal Cultural Resources and heritage, AB 52 requires that CEQA lead agencies carry out consultation with tribes at the commencement of the CEQA process to identify Tribal Cultural Resources. Furthermore, because a significant effect on a Tribal Cultural Resource is considered a significant impact on the environment under CEQA, consultation is required to develop appropriate avoidance, impact minimization, and mitigation measures. Consultation is concluded when either the lead agency and tribes agree to appropriate mitigation measures to mitigate or avoid a significant effect, if a significant effect exists, or when a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached, whereby the lead agency uses its best judgement in requiring mitigation measures that avoid or minimize impact to the greatest extent feasible.

## **IMPACT ANALYSIS**

- a. *Would the project cause a significant adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*
  - 1. *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)?*
  - 2. *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?*

According to the City's 2030 General Plan Environmental Impact Report (EIR), the historic commercial core is focused on the F Street/Yosemite Avenue intersection and sites surveyed as part of the General Plan EIR do not include the Project site. In addition, the Project site is not listed or eligible for listing in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).

According to the City's 2030 General Plan EIR, a request to the Native American Heritage Commission (NAHC) during the General Plan update (2009) to conduct a search of their sacred lands database to determine if any Native American cultural resources are present in or in the vicinity of the Planning Area. The NAHC response letter stated that the sacred lands database did not indicate the presence of Native American resources in the Planning Area. The planning area includes the Proposed Project site. In addition, letters requesting consultation regarding the Proposed Project were sent to six (6) Native American tribes on February 14, 2022. No response requesting a consultation was received within the 30-day consultation request timeframe. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

**MITIGATION MEASURES:**

Mitigation is not required for this topic.



# 19. UTILITIES AND SERVICE SYSTEMS -- WOULD THE PROJECT:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?			X	
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?			X	
e) Comply with Federal, State, and local management and reduction statutes and regulations related to solid waste?			X	

## IMPACT ANALYSIS

- a. *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?*

The City Wastewater Treatment Plant (WWTP) is located north of the Stanislaus River and serves the businesses and residents within the City. The WWTP is regulated by the Regional Water Quality

Control Board (Regional Board) Order R5-2012-0063, Waste Discharge Requirements (WDRs).<sup>2</sup> The WDRs establish discharge prohibitions, flow limitations, effluent limitations, solids disposal requirements, groundwater limitations, discharge specifications, ultraviolet disinfection system operation specifications, solids disposal specifications, and provisions for the WWTP. The City wastewater collection system consists of approximately 70 miles of gravity sewers ranging from 4-inch to 27-inch diameter, with eleven (11) pump stations and eleven (11) low pressure force mains.

The City supplies water to its residents and businesses through a system of water infrastructure that has been constructed over several years. Distribution pipelines are of various size, age, and materials. Due to the elevation changes, the distribution system is divided into two (2) pressure zones, with some sections of the service area requiring pressure reducing valves. The City has two (2) booster pump stations that allow water to be conveyed from the lower zone to the upper zone. The City has one (1) 1.0 MG pre-stressed concrete water storage facility, constructed and placed into service in 2014. Source water is from local groundwater aquifers. The City owns and operates eight (8) water production wells, with a total production capacity of approximately 15 MGD. Total well production, according to the Water System Master Plan is 10,100 gpm. The Total Net Well Production is 7,500 gpm (assumes the largest producing well is out of service).

The Proposed Project will include underground sewer line connections to the City of Oakdale's existing sanitary sewer line in Greger Street. Based on existing wastewater generation rates per acre (gpd/ac), the Proposed Project is expected to generate 1,492 gallons of wastewater per day. According to the City's Wastewater Master Plan, the existing WWTP and system will be sufficient to accommodate the build-out of land within the city limits, including population projections to the year 2040. As a result, the Proposed Project is not expected to exceed the wastewater treatment requirements and is **Less Than Significant**.

- b. *Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*

According to the City's Water Master Plan, the City will have a total average day demand of 4.7 MD in 2040, based on population projections and conservation goals. To meet this demand, the City will need to have a total production capacity of 6,500 gpm without its largest well/booster in service (considered the Net Well Production). As discussed above, the City's existing system is sufficient to manage this demand. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

- c. *Would the project result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?*

Refer to the discussion above, under Item 19(a).

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<sup>2</sup> City of Oakdale, Wastewater Master Plan, Volume 1, Adopted October 5, 2015

The Proposed Project will connect to the City's domestic wastewater system by connecting to an existing wastewater line in Greger Street. Wastewater in the City of Oakdale ultimately ends up at the City's Wastewater Treatment Plan located north of the Stanislaus River. Based on discussions with the City Engineer, there is sufficient capacity at the City's Wastewater Treatment Plan to accommodate wastewater generated by the Proposed Project. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

The following discussion is an analysis for criteria (d) and (e):

- d. Would the project 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. Would the project comply with Federal, State, and local management and reduction statutes and regulations related to solid waste?*

Based on a review of Section 4.4 of the 2030 General Plan EIR, the City continues to divert solid waste from local landfills through various conservation, recycling, and composting measures. All of this is done in compliance with AB39. The Proposed Project will participate in the City's AB39 compliance efforts.

The Proposed Project will be provided solid waste services by Gilton Solid Waste. The Proposed Project was referred to Gilton Solid Waste for review and comment. The City did not receive comment or concern from Gilton Solid Waste regarding the Proposed Project.

The Proposed Project would comply with Federal, State, and local statutes and regulations related to solid waste and would not cause solid waste providers to be out of compliance with applicable statutes and regulations related to solid waste. Therefore, the Proposed Project will have a **Less Than Significant**.

#### **MITIGATION MEASURES:**

Mitigation is not required for this topic.

## 20. WILDFIRE -- Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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?			X	
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?			X	
c) Require the installation 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?			X	
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?			X	

### IMPACT ANALYSIS

The following discussion is an analysis for criteria (a), (b), (c), and (d):

- Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*
- Would the project 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?*
- Would the project require the installation 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?*
- Would the project 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?*

Based on a review of Section 4.8 of the 2030 General Plan, and according to the Stanislaus County Multi-Jurisdictional Hazard Mitigation Plan, State Route 120/108 is identified as an emergency evacuation route in the City and County. The Proposed Project is not located on or near State Route

120/108 and thereby will not physically interfere with implementation of the County's emergency response or evacuation plan. In the case that an emergency evacuation is required, the Proposed Project can access State Route 120/108 via Yosemite Avenue, Willowood Avenue, or Crane Road.

In addition, the Proposed Project is not located in or near lands that are classified as very high fire hazard severity zones. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

***MITIGATION MEASURES:***

Mitigation is not required for this topic.



## 21. MANDATORY FINDINGS OF SIGNIFICANCE --

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			X	
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)?		X		
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		

### IMPACT ANALYSIS

- a. *Does the project have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, 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?*

Finding (a) is checked as "Less Than Significant Impact" on the basis of the Proposed Project's potential impacts on biological resources, as described in Section 3.0 of this Initial Study. Potential impacts were identified in this area, but they were identified to be **Less Than Significant**.

- 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 the connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

As described in this Initial Study, the potential environmental effects of the Proposed Project will either be less than significant or will have no impact at all. Where the Proposed Project involves

potentially significant impacts, these impacts would have a **Less Than Significant Impact with Mitigation Incorporated**.

The potential environmental impacts identified in this Initial Study have been considered in conjunction with each other as to their potential to generate other potentially significant impacts. The various potential environmental impacts of the Proposed Project will not combine to generate any potentially significant cumulative impacts.

The City of Oakdale 2030 General Plan and EIR comprehensively account for ongoing and foreseeable urban development within the City's "Planning Area" and the cumulative environmental impacts of planned development. Future urban development in Oakdale includes the provision of roads, utilities, schools, and recreational facilities needed to serve City residents and visitors as their demands for urban services increase over time.

The Proposed Project will contribute to planned urban development in the City of Oakdale. The potential environmental impacts associated with the Proposed Project represent a portion of the environmental consequences of the planned growth and development permitted by the 2030 General Plan. The Proposed Project will involve a minor addition to the potential environmental impacts identified in the 2030 General Plan EIR, but the Proposed Project will not result in any substantial contribution to any of the significant cumulative impacts identified in the 2030 General Plan EIR.

- c. *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

This Initial Study has considered the potential environmental impacts of the Proposed Project in the discrete issue areas outlined in the CEQA Environmental Checklist. During the environmental analysis, the potential for the Proposed Project to result in substantial impacts on human beings in these issue areas, as well as the potential for substantial impacts on human beings to occur outside of these issue areas, was considered, and were identified but they were identified to be **Less Than Significant with Mitigation Incorporated**.

## REFERENCES

In accordance with Section 15063(a)(3) of the CEQA Guidelines, the following expert opinion, technical studies, and substantial evidence has been referenced and/or cited in the discussion included in the Initial Study Checklist:

1. City of Oakdale 2030 General Plan, dated August 8, 2013.
2. City of Oakdale 2015-2023 Housing Element, dated February, 2016.
3. City of Oakdale 2030 General Plan Environmental Impact Report (EIR), dated August 8, 2013.
4. City of Oakdale Zoning Ordinance.
5. City of Oakdale Water System Master Plan, dated October 5, 2015.
6. City of Oakdale Urban Water Management Plan, dated January 2009.
7. City of Oakdale Wastewater Master Plan, dated October 5, 2015.
8. City of Oakdale Climate Action Plan, dated August 8, 2013.
9. Stanislaus County Airport Land Use Compatibility Plan, dated October 6, 2016.
10. California Department of Transportation Online Database of State Scenic Highways ([www.dot.ca.gov/hq/LandArch/scenic/cahisys.htm](http://www.dot.ca.gov/hq/LandArch/scenic/cahisys.htm)).
11. San Joaquin Valley Air Pollution Control District (SJVAPCD), Air Quality Thresholds of Significance – Criteria Pollutants, dated March 19, 2015 (<http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf>).
12. San Joaquin Valley Air Pollution Control District (SJVAPCD), Small Project Analysis Levels (SPAL), dated November 13, 2020 (<http://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI-SPAL.PDF>).
13. San Joaquin Valley Air Pollution Control District (SJVAPCD), *Guidance for Assessing and Mitigating Air Quality Impacts*, dated March 19, 2015 (<https://www.valleyair.org/transportation/GAMAQI.pdf>).
14. Geotechnical Engineering Study, dated December 24, 2019, prepared by Condor Earth.
15. Traffic Impact Assessment, dated May 23, 2022, prepared by K.D. Anderson & Associates, Inc.

**Appendix A**  
**Air Impact Assessment Approval, dated June 24, 2022**



June 24, 2022

Eric Thornburn  
Oakdale Irrigation District  
1205 E 'F' St  
Oakdale, CA 95361

**Re: Air Impact Assessment (AIA) Application Approval**  
**ISR Project Number: C-20220161**  
**Land Use Agency: City of Oakdale**  
**Land Use Agency ID Number: Unknown**

Dear Mr. Thornburn:

The San Joaquin Valley Air Pollution Control District (District) has approved your Air Impact Assessment (AIA) for the Oakdale Irrigation District - New Maintenance Facility and Headquarter project, located at 1110 Kaufman Road in Oakdale, California. The project consists of a new maintenance facility and headquarters office building. The District has determined that the mitigated baseline emissions for construction and operation will be less than two tons NO<sub>x</sub> per year and two tons PM<sub>10</sub> per year. Pursuant to District Rule 9510 Section 4.3, this project is exempt from the requirements of Section 6.0 (General Mitigation Requirements) and Section 7.0 (Off-site Emission Reduction Fee Calculations and Fee Schedules) of the rule. As such, the District has determined that this project complies with the emission reduction requirements of District Rule 9510 and is not subject to payment of off-site fees. The determination is based on the project construction details provided with the application. Changes in the construction details may result in increased project related emissions and loss of this exemption.

Pursuant to District Rule 9510, Section 8.4, the District is providing you with the following information:

- A notification of AIA approval (this letter)
- A statement of tentative rule compliance (this letter)
- An approved Monitoring and Reporting Schedule

In addition, to maintain this exemption you must comply with all mitigation measures identified in the enclosed Monitoring and Reporting Schedule. Please notify the District of any changes to the project as identified in the approved Air Impact Assessment for this project.

**Samir Sheikh**  
Executive Director/Air Pollution Control Officer

---

**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95358-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

**Central Region (Main Office)**  
1900 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061  
[www.valleyair.org](http://www.valleyair.org)

**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: (661) 392-5500 FAX: (661) 392-5585  
[www.healthyairliving.com](http://www.healthyairliving.com)



### **Change in Developer Form**

If all or a portion of the project changes ownership, a completed Change in Developer form must be submitted to the District within thirty (30) days following the date of transfer.

### **Additional Requirements**

- Dust Control Plan. Please be aware that you may be required to submit a Construction Notification Form or submit and receive approval of a Dust Control Plan prior to commencing any earthmoving activities as described in District Rule 8021 – *Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities*.
- Asbestos Requirements for Demolitions. If demolition is involved, a Certified Asbestos Consultant will need to perform an asbestos survey prior to the demolition of a regulated facility. Following the completion of an asbestos survey; the asbestos survey, Asbestos Notification, Demolition Permit Release, and the proper fees are to be submitted to the District 10 working days prior to the removal of the Regulated Asbestos Containing Material and/or the demolition when no asbestos is present.
- Permits. Per District Rule 2010 (Permits Required), you may be required to obtain a District Authority to Construct prior to installation of equipment that controls or may emit air contaminants, including but not limited to emergency internal combustion engines, boilers, and baghouses.

To identify other District rules or regulations that apply to this project or to obtain information about District rules and permit requirements, the applicant is strongly encouraged to visit [www.valleyair.org](http://www.valleyair.org) or contact the District's Small Business Assistance office nearest you

Fresno office: (559) 230-5888  
Modesto office: (209) 557-6446  
Bakersfield office: (661) 392-5665

Mr. Thornburn  
Page 3

Thank you for your cooperation in this matter. Please note the District also issued a letter to the land-use agency notifying the agency of this AIA approval. If you have any questions, please contact Mr. Patrick C Chimienti by telephone at (559) 230-6139 or by email at [patrick.chimienti@valleyair.org](mailto:patrick.chimienti@valleyair.org).

Sincerely,

Brian Clements  
Director of Permit Services

A handwritten signature in blue ink, appearing to read 'Brian Clements', with a stylized flourish at the end.

For: Mark Montelongo  
Program Manager

Enclosures

cc: Mark Niskanen  
Oakdale Irrigation District  
1110 Kaufman Road  
Oakdale, Ca 95361



**Appendix B**  
**Geotechnical Engineering Study, prepared by**  
**Condor Earth, dated December 24, 2019**

**Appendix C**  
**Traffic Assessment prepared by**  
**KD Anderson & Associates, Inc., dated May 23, 2022**



**Appendix B**  
**Geotechnical Engineering Study, prepared by**  
**Condor Earth, dated December 24, 2019**



**GEOTECHNICAL ENGINEERING STUDY  
GREGER FACILITY – OAKDALE IRRIGATION DISTRICT  
GREGER STREET/KAUFMAN ROAD INTERSECTION  
OAKDALE, CALIFORNIA**

*Prepared for*  
**Jason Jones  
Oakdale Irrigation District  
1205 East F St  
Oakdale, CA 95361**

*Prepared by*  
**Condor Earth  
21663 Brian Lane  
Sonora, CA 95370  
209.532.0361**

**December 24, 2019  
Condor Project No. 8098**

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## ATTACHMENTS

### FIGURES

Figure 1	Vicinity Map
Figure 2	Site Plan
Figure 3	Regional Fault Map
Figure 4	Radon Hazard Map

### APPENDIX A

Borings Logs

### APPENDIX B

Laboratory Test Reports

### APPENDIX C

Test Pit Logs and Percolation Test Data/Calculations





**GEOTECHNICAL ENGINEERING STUDY  
GREGER FACILITY – OAKDALE IRRIGATION DISTRICT  
GREGER STREET/KAUFMAN ROAD INTERSECTION  
OAKDALE, CALIFORNIA**

## **1.0 INTRODUCTION**

This report presents the Geotechnical Engineering Study performed by Condor Earth (Condor) for the Oakdale Irrigation District (OID) Greger Facilities project. The project site is at the southwest quadrant of the Greger Street/Kaufman Road intersection in Oakdale, California. Figure 1 shows the approximate site location.

The purpose of Condor's work is to:

- Provide geotechnical site and subsurface data
- Evaluate the effect potential geologic hazards have on the proposed improvements
- Develop geotechnical engineering recommendations for earthwork, footings, and pavement – for improvements described in Section 2.0
- Present percolation test data
- Prepare this report for building permits

Other design professionals and contractors will use data and recommendations in this report for design and construction of earthwork, footings, pavement and stormwater detention facilities.

Condor performed our work according to our September 9, 2019 Proposal and under OID's October 28, 2019 Work Release No. 023 (for OID Project No. 2019-026).

## **2.0 PROJECT DESCRIPTION**

Figure 2 shows the site topography. The site is bound by streets to the north and east, a self-storage facility to the west, and the OID Crane Lateral facility to the south. The site encompasses three adjacent parcels and has approximate plan dimensions of 600 by 750 feet. The site's ground surface is relatively level. Section 6.0 presents more information about site conditions.

Only a preliminary project plan is available at this time. Condor based our project description on our review of that plan, review of project information, discussions with the team and our experience working on similar projects.

Condor understands that the project will consist of developing the entire site with buildings, a fueling station/canopy with above-ground tanks, outdoor storage, pavement, a stormwater detention facility and underground utilities. We understand that buildings will include about 16,500 square feet of office space and 66,000 square feet of indoor storage. The buildings will be one- and/or two-story wood or light metal-framed structures with concrete slab-on-grade lower floors situated slightly above the final exterior ground surfaces. Pavements will include concrete sidewalks, vehicular concrete pavement and vehicular asphalt-concrete pavement.

Condor expects that grading for surface improvements will consist of cuts and fills of less than 1-foot to develop level building pads and to provide surface drainage. We expect that grading for the stormwater



detention facility will consist of cuts up to about 5 to 10 feet and that trenches for underground utilities will extend to depths of up to 6 feet.

If the geotechnical engineering aspects of the project to be constructed vary significantly from Condor's description, then we should re-evaluate the conclusions and recommendations contained in this report.

### **3.0 SCOPE OF SERVICES**

Condor's scope of services consisted of performing a site and subsurface investigation as described in Section 4.0, performing percolation tests as described in Section 5.0, performing engineering evaluations, and preparing this report that presents the following:

- Vicinity map
- Site plan showing the approximate boring/test pit locations and pertinent surface features
- Boring and test pit logs
- Laboratory test reports
- Project description
- Description of work scope and investigation
- Description of site conditions
- Description of site geology
- Discussion of general surface and subsurface conditions, including groundwater
- Geotechnical engineering discussion, conclusions and recommendations for the following:
  - Expected subsurface conditions beneath proposed buildings and improvements
  - Most appropriate option for earthwork to provide adequate support for footings
  - Potential for geologic hazards
  - Seismic design using the 2019 California Building Code method
  - Earthwork
  - Footings
  - Slab-on-grade floors
  - Vehicular and pedestrian pavement
  - Surface drainage
  - Construction considerations
  - Impact of soil corrosivity on buried metal and concrete
  - Percolation test data

### **4.0 SITE AND SUBSURFACE INVESTIGATION**

Condor's site investigation consisted of observing, documenting and evaluating the geotechnical engineering aspects of the ground surface and two stockpiles of earth material at the site. In addition, we reviewed historic aerial photographs of the site that date back to 1998. Section 6.0 presents our description of site conditions.

Condor investigated subsurface conditions by drilling seven vertical borings (B-1 through B-7), excavating three test pits (TP-1 through TP-3) for the percolation tests, and performing laboratory tests on representative soil samples that we retrieved from the borings and the ground surface. Figure 2 shows the approximate boring and test pit locations. Appendix A includes the boring logs, Appendix B includes



laboratory test results, and Appendix C includes the test pit logs. Section 8.0 presents a description of subsurface conditions.

Condor's subcontractor drilled/advanced the borings using a truck-mounted drill rig with continuous flight augers to approximate depths of 15 to 18 feet. They sampled using split-spoon samplers driven by a 140-pound hammer falling 30 inches. The sampler with an approximate outside diameter of 3 inches contained liners with approximate diameters of 2.5 inches. The boring logs show, at the sampling depths, the number of blows required to drive the split spoon samplers over the final two 6-inch increments over drives up to 18 inches. Where practical refusal to driving the entire 18 inches occurred, the boring logs show the number of blows to drive the sample over the last 6-inch increment and the approximate length driven over that last increment.

A Condor geologist observed the drilling, selected depths for split-spoon sampling, capped/labeled liner samples, contained/labeled Standard Penetration Test (SPT) samples and disturbed samples, and logged/recorded conditions encountered and other pertinent data. Condor classified soil using the Unified Soil Classification System and the visual-manual procedure. We transported the samples to our office for further observation/evaluation and for selection of laboratory test specimens.

Condor checked the borings for groundwater. Soon after they completed drilling, our subcontractor backfilled each boring with neat cement grout.

Condor checked the general consistency of ground exposed in test pits excavated for the percolation tests. Section 5.0 presents additional information regarding conditions exposed in the pits.

Condor delivered the selected samples to our laboratory and subcontracted laboratories. The laboratories performed the tests that follow:

- Particle size distribution
- Moisture content and dry density
- Undrained triaxial shear strength
- Resistance value (R-value)
- Corrosivity

Condor's sample for the R-value test was a composite sample from various site locations from approximate depths of 6 to 18 inches. Appendix B contains the laboratory test reports and the logs in Appendix A summarize some of the test results.

## **5.0 PERCOLATION TESTS**

Condor's subcontractor excavated the test pits using a backhoe/excavator with a bucket to depths of about 8 feet. A Condor geologist logged conditions encountered according to the United States Department of Agriculture classification system. Constant head percolation tests were performed in ground at the bottoms of each pits at approximately 10 feet below the ground surface (2 feet of additional digging by hand occurred).

The percolation holes were excavated at the bottom of each of the three test pits to form a cylinder with an average width of 6 inches and a depth of 12 inches. We place a vertically aligned 4-inch diameter perforated pipe in the hole and backfilled the outer annulus with clean pea gravel extending to about 8 inches above the



hole bottom (to where we set the constant head water level). We soaked each hole for 24 hours before making percolation measurements.

On top the perforated pipe sat a reservoir container with a pipe extending down the hole. At the end of the pipe was a float valve that allowed water into the hole while maintaining an 8-inch head. The reservoirs were fixed with a graduated cylinder to measure the volume of water needed to maintain the water level in the hole (with more precision). The results from the tests were converted to minutes per inch drop.

Percolation results are included in Appendix C and summarized in Section 10.9.

After we completed logging and testing, our subcontractor backfilled the pits using excavated ground and lightly tamped the backfill using the backhoe bucket.

## 6.0 SITE CONDITIONS

Figure 2 shows the pertinent aspects of site conditions. The site is mostly undeveloped. There are two stockpiles of earthen material at the south side of the site. There is a fenced area near the northeast corner than contains a stockpile of pipe.

The ground surface at the site is relatively level and free of vegetation. The highest ground is at the northeast corner and the lowest is at the southeast corner. The elevation difference between those two corners is about 5 feet.

There is silty sand with boulders, rocks and debris exposed on the surface of the western stockpile. At the surface of the eastern stockpile, there are hard rock blocks exposed. The block sizes mostly range from about 5 inches to 4 feet.

There are animal burrows on the ground surface at the east side of the site. There are depressions in the ground surface near the northwest corner of the site.

There is an existing artificial fill at the northeast corner of the site, where the site's ground surface is about 4 feet higher than the adjacent road surface (and where the ground surface slopes down from the site to Greger Street). The ground surface of the fill exposes dense silty sand.

Historic aerial photographs dating back to 1998 reveal the following previous activity/development at the site:

- Buildings/facilities at the northeast corner of the site (dating back to 1998 or earlier)
- Agricultural/vegetation abatement adjacent to the buildings/facilities

## 7.0 SITE GEOLOGY

The site is mapped as containing Pleistocene nonmarine alluvium. Our borings and test pits encountered alluvium that is mostly silty sand and clayey sand. Section 9.0 contains information regarding conditions encountered in the borings and pits.

## 8.0 EARTHQUAKE FAULTS

Figure 3 shows the approximate site location on a map showing earthquake faults within at least 80 kilometers (km) of the site. The faults are grouped as "Historic" (evidence of movement over the last 150 years), "Holocene" (evidence of movement over the last approximately 150 to 15,000 years), "Late Pleistocene" (evidence of movement over the last approximately 15,000 to 130,000 years), and "Early



Quaternary” (evidence of movement over the last approximately 130,000 to 1.6 million years). The fault locations are from published data from the United States Geological Survey (USGS, 2008). No known faults traverse the site.

## **9.0 SUBSURFACE CONDITIONS**

The borings encountered mostly medium dense to dense silty sand and clayey sand except at depths generally below 13.5 feet where these soil types are very dense. In particular, the silty sand and clayey sand is very dense in B-1, B-5 and B-7 from below 13.5 to 15.5 feet to maximum depths explored of 15 to 18 feet at those locations.

Some medium dense to very dense poorly graded sand layers with various proportions of clay and gravel were encountered, as follows (boring and approximate depths below the ground surface in feet indicated):

- B-3 – 6 to 9.5: medium dense poorly graded sand with clay and gravel
- B-3 – 15 to 17.5: very dense poorly graded sand with clay
- B-4 – 15 to 17: very dense poorly graded sand with clay
- B-6 – 10.5 to 15.5: dense poorly graded sand with clay and gravel
- B-6 – 16.5 to 18: dense poorly graded sand

The ground surface exposed in the test pits for the percolation tests was generally medium dense to dense sand with varying proportions of silt, clay and gravel.

The borings and test pits encountered no groundwater during drilling/excavation in October and November 2019. Published data shows that historic high groundwater in nearby wells is at least 100 feet below the ground surface.

## **10.0 CONCLUSIONS AND RECOMMENDATIONS**

The subsection that follows summarizes Condor’s general and overall conclusions. This is followed by sections that contain specific conclusions and recommendations. “Geotechnical Engineer” refers to Condor, our representative, or another qualified engineer to oversee the geotechnical engineering aspects of construction.

### **10.1 GENERAL**

Condor concludes that construction of the proposed improvements described in Section 2.0 is feasible from a geotechnical engineering standpoint. We conclude that conventional footings should be used to support buildings and other structures.

Based on our review/evaluation of the site and subsurface data and our understanding of the proposed site grading, Condor expects that surficial buildings and improvements will be underlain by a few feet of compacted engineered fill underlying alluvium consisting of medium dense to dense silty sand and clayey sand. The exception to this will be areas requiring overexcavation below footings, floors and pavements where the thickness of compacted engineered fill may be thicker than 2 feet. We expect that underground facilities, such as the stormwater detention facility, will be underlain by alluvium. We expect that groundwater occurs at a depth of at least 100 feet beneath the ground surface.

Condor concludes that the primary geotechnical engineering issue to address for the project is the need to overexcavate/recompact existing fill and ground that is loosened/disturbed from previous activity, including





the test pit backfill. This work should be performed to provide adequate ground support for footings, floors and pavement. Although our borings and test pits encountered no loose/disturbed ground, previous activity at the site (as Section 6.0 describes) may have resulted in loosed ground at other areas. In addition, some areas with surface depressions and animal burrows may require overexcavation (depending on the depth of ground disturbance). The existing fill at the northeast corner of the site appears to be well compacted; and therefore, Condor expects no significant overexcavation of that fill. Section 10.3.3 presents our recommendations for overexcavations.

## **10.2 GEOLOGIC HAZARDS**

The ground surface at the site and adjacent areas is relatively level. Condor therefore concludes that the landslide hazard risk for the project is low and that no additional evaluation or mitigation for landslide hazards is required.

The site is not located within an Earthquake Fault Hazard Zone (California Geological Survey Special Publication 42, 2018), and there are no known active or potentially active faults at the site (see Section 8.0). Condor therefore concludes that the potential for ground surface rupture from faulting is low, and that no additional evaluation or mitigation for fault hazards is required.

Our borings and test pits encountered no loose cohesionless soil and the published historic high groundwater near the site is at least 100 feet deep. Condor therefore concludes that the potential for liquefaction and seismically induced settlement is low, and that no additional evaluation or mitigation for these hazards is required. In addition, we conclude that the potential for ground displacement at the site from seismicity is low because the ground surface at the site and the site vicinity is relatively level.

Figure 4 shows the approximate site location on a radon hazard map for the state of California. Stanislaus County is mapped in Zone 3, defined as an area having a low potential for indoor radon levels at the EPA-recommended action level (4 picocuries per liter). Condor therefore concludes that the potential for radon hazard is low, and that no additional evaluation or mitigation for this hazard is required.

## **10.3 EARTHWORK**

The subsections that follow present Condor's recommendations for earthwork.

### **10.3.1 Site Preparation**

The existing ground surface should be prepared as described in this section in areas to receive fill and improvements. Site preparation includes stripping of vegetation, demolition/removal of existing surface and subsurface improvements, and removal of debris, organic topsoil and other unsuitable material. Site preparation operations should extend at least 5 feet beyond the limits of new fill or improvements, where possible. The Geotechnical Engineer should approve the limits of site preparation where they are less than 5 feet beyond the limits of new fill or improvements.

The surface soil should be stripped of vegetation and organic topsoil with more than 2 percent organic material by dry weight. Root balls and roots greater than 2 inches in diameter should be removed. Debris, foundations, pavements, abandoned utilities and other underground facilities should be removed. The exposed ends of removed pipes should be capped. Stripped organic soil and vegetative material may be stockpiled for later use in landscape areas if approved by the Architect or Owner. The Geotechnical Engineer should approve prepared surfaces before excavation and/or covering them with fill or improvements.



### **10.3.2 Excavations**

The Contractor shall be responsible for the stability of temporary excavations and should comply with applicable Cal/OSHA regulations (California Construction Safety Orders). A competent person shall determine the soil type and requirements for temporary cutslope inclinations during excavation. The Contractor's competent person should regularly monitor open cuts for evidence of incipient stability failures.

Based on the subsurface data and our evaluation, Condor expects that temporary vertical cutslopes up to about 4 feet high should have adequate temporary stability during relatively dry weather conditions. We recommend planning for "Type B" soil conditions for excavations extending to depths of 10 feet or less and to incline sides of such excavations at 1 horizontal to 1 vertical (1:1) or flatter. Flatter side-slopes may be required if significant surcharge loads are imposed on ground surfaces above excavations and/or relatively wet weather occurs.

Condor recommends designing permanent cutslopes up to 20 feet high inclined 1.5:1 or flatter. For ponds, we recommend designing for cutslope inclinations of 2:1 or flatter unless we perform detailed slope stability analyses.

### **10.3.3 Overexcavation**

Overexcavations will be required to remove loose/soft soil where it exists beneath proposed improvements and fill. As discussed in Section 10.1, Condor expects that some overexcavation will be required.

The contractor should plan to overexcavate the test pit-backfill to depths of about 5 feet where it exists beneath new exterior pavement. Overexcavations in areas we did not investigate may be required to remove loose sand disturbed/loosened from previous activity.

Overexcavations should be made before subgrade preparation. The Geotechnical Engineer should identify areas requiring overexcavation, observe overexcavation work and approve bottoms of overexcavations before subgrade preparation.

### **10.3.4 Subgrade Preparation**

After approval by the Geotechnical Engineer, the stripped or excavated ground surface consisting of soil and beneath fill or improvements, except for subgrades beneath vehicular pavement, should be scarified to a depth of 8 inches, moisture conditioned to facilitate compaction, and then compacted to at least 90 percent (based on ASTM Test Method D-1557). Subgrades beneath vehicular pavements should be compacted to at least 95 percent.

Subgrades that become disturbed should be scarified, moisture conditioned and recompacted. The Geotechnical Engineer should approve subgrades soon before they are covered.

Subgrade preparation is generally not required for bottoms of utility trenches and footing excavations unless there is unsuitable or unstable material exposed. We do not anticipate that utility trenches or footing excavations will expose unsuitable or unstable material.



### 10.3.6 Engineered Fill

Engineered fill should have less than 2 percent by dry weight of organic and deleterious material and should meet the particle-size distribution requirements presented on the table that follows:

Sieve Designation	Minimum Percent Passing by Dry Weight
8-inch square	100
4-inch square	90
¾-inch square	70
U.S. No. 4	60

Soil fill placed within 12 inches of building slab-on-grade floors, fill placed within 12 inches of exterior pavement, and fill placed on slopes should be select fill with a plasticity index of 15 or less. Otherwise, fill should be general fill with a liquid limit of 50 or less and a plasticity index of 20 or less. Aggregate layers beneath floor slabs may be included in the total thickness of select fill.

Our observations and laboratory test data indicate that ground excavated from the existing ground surface that has low organics and that is relatively free of debris will meet requirements for select and general engineered fill. The ground exposed at the western stockpile should meet the requirements for select and general engineered fill provided the contractor removes debris and boulder-sized rocks with particle sizes that are about 8 inch or larger. The material properties of ground deeper in the stockpile will need to be evaluated during construction. The rock exposed at the eastern stockpile will not meet the requirements for engineered fill because of the large particle sizes.

The Geotechnical Engineer should evaluate the use of on-site or imported material for use as fill on a case-by-case basis, depending on where it will be placed.

Engineered fill should be moisture conditioned to facilitate compaction, and then it should be compacted to at least 90 percent (based on ASTM Test Method D-1557). Fill placed deeper than 5 feet below soil subgrade should be compacted to at least 95 percent. Trench backfill placed more than 5 feet beyond the edges of structures, pavements, slabs-on-grade or other improvements may be compacted to 85 percent. Engineered fill should be placed in horizontal lifts that are less than 8 inches in uncompacted thickness, and each lift should be compacted to the requirements prior to placing subsequent lifts.

Condor recommends designing permanent fill slopes using a ground surface inclination of 2:1 or flatter. We should perform detailed slope stability analyses for pond embankments.

### 10.3.7 Utility Trenches

Below-grade utilities should be bedded and backfilled according to the requirements of the service provider (utility company) and local agencies with jurisdiction. Where there are no specific requirements, Condor recommends placing free-draining bedding sand or crushed rock with a maximum particle size of ¾-inch from 3 inches below to 1 foot above the conduit or pipe. Bedding sand should have a sand equivalent of at least 30. Bedding sand and backfill should not be jetted or ponded into place but should be mechanically compacted in accordance with the recommendations in Section 10.3.5.



### 10.3.8 Surface Drainage and Erosion Control

Surface drainage should be provided to prevent ponding and to drain surface water away from the edges of pavements, edges of foundations and slope crests. Gradients of at least 2 percent should direct surface runoff to suitable collection or discharge facilities. Pavements should be designed with gradients of about 2 percent in their principal direction of drainage, unless drainage reaches are less than about 10 feet.

Condor recommends that the Contractor implement approved temporary and permanent erosion control measures to reduce erosion. Erosion control should comply with applicable county and municipal regulations. Soil on graded slopes should be fertilized, mulched and planted as soon as possible after grading with erosion-resistant vegetation. These plants should be watered lightly at appropriate intervals until growth is established. Drainage ditches, catch basins and storm drains should be cleaned out periodically as part of the site's maintenance program.

### 10.4 SEISMIC DESIGN

Condor recommends using the following values for seismic design according to the 2019 California Building Code (CBC):

- Site Class: D
- $S_S$ : 0.537 g (where g is acceleration from gravity)
- $S_1$ : 0.232 g
- $S_{MS}$ : 0.735 g
- $S_{M1}$ : see below
- $S_{DS}$ : 0.49 g
- $S_{D1}$ : see below

The 2019 CBC incorporates procedures outlined in ASCE 7-16. Section 11.4.8 of ASCE 7-16 and other referenced sections provides options for either developing a ground motion hazard analysis or taking exceptions. The applicable exception for this project is exception number 2 because the design Site Class is D and because  $S_1$  is 0.2 or greater. The exception requires using a 1.5-value to factor-up  $C_s$  values for periods (T) greater than  $1.5 \cdot T_s$  (from equations 12.8-3 and 12.8-4). The intent of the code is to increase the design seismic base shear for longer periods unless a detailed ground motion hazard analysis is performed allowing for lower design base shears for the longer periods.

Condor suggests that taking the exception will be appropriate for this project because:

- The proposed buildings are relatively low-rise (with a relatively short design period)
- Detailed ground motion hazard analyses require a significant effort and time to complete

Condor can, however, facilitate the ground motion hazard analysis if the structural engineer/owner determine that developing one will significantly reduce construction and design costs.

### 10.5 FOOTINGS

Loose or soft material encountered beneath footings may be replaced with concrete or lean concrete with a 28-day unconfined compressive strength of at least 100 psi. We expect that earthwork performed according to Section 10.3 will remove loose or soft material. The Geotechnical Engineer should approve footing excavations before reinforcing steel and concrete is placed.





Footings should be embedded at least 18 inches below the lowest adjacent soil. We define soil subgrade as the prepared soil surface beneath floor slabs, aggregate layers and landscape soil. Where footings and mats are located on or adjacent to slopes such as at the stormwater detention facility, they should be deepened, as necessary, to provide a minimum horizontal distance between the bottom of the footing and the descending slope face of at least three times the footing width or 5 feet, whichever results in a deeper footing. If providing this horizontal distance is not practical, then designing for allowable bearing pressures and passive resistance lower than recommended later in this section will be necessary. In that case, Condor should re-evaluate the geotechnical engineering aspects of footing design.

Isolated and continuous footings should be at least 18 inches and 12 inches wide, respectively. Footings should have the minimum widths and thicknesses specified by the CBC.

Footings should be designed using a net allowable bearing pressure of 3,000 pounds per square foot (psf) for dead plus normal duration live loads. This allowable bearing pressure includes a safety factors of two and may be increased by one-third for total load conditions, including wind and seismic.

For resistance to lateral loads, base friction resistance may be calculated using an ultimate friction coefficient of 0.35. Passive resistance may be calculated using an equivalent fluid unit-weight of 300 pounds per cubic foot (pcf; triangular distribution) for transient and sustained loads. We reduced the allowable passive resistance by a factor of 1.5 from the ultimate value to limit the footing movement required to mobilize passive pressure. Both passive pressure and base friction may be combined in calculating total lateral resistance without reduction. Passive resistance contributed by the top 12 inches of soil should be neglected unless a pavement covers the ground. Where the ground surface slopes away from footings, passive resistance should start where a 1.5:1 plane extending up from the footing bottom intersects the ground surface. Gaps between the footing or keyway and the adjacent ground should be completely backfilled using engineered fill, concrete or lean cement slurry with a 28-day unconfined compressive strength of at least 100 psi.

## **10.6 SLAB-ON-GRADE FLOORS**

The contractor should maintain soil subgrades beneath floors according to recommendations in Section 10.3 until they cover them. The Geotechnical Engineer should approve subgrades before the contractor covers them.

For exterior flatwork and other slabs-on-grade where water vapor transmission through slabs is not a concern, the vapor barrier and capillary break material described in this section may be omitted.

To reduce water vapor transmission upward through concrete slabs-on-grade, they should be on a minimum 4-inch thick layer of capillary break material covered with a vapor retarder. The capillary break material should be free-draining, clean gravel or rock, such as No. 4 by ¾-inch pea gravel or permeable aggregate complying with Caltrans Standard Specification, Section 68, Class 1, Type B Permeable Material. The vapor retarder should be at least 10-mil in thickness and meet the material requirements for Class C vapor retarders presented in ASTM E1745, and should be installed according to ASTM E1643. These installation requirements include overlapping seams by 6 inches, taping seams and sealing penetrations in the vapor retarder.

Condor does not practice in the field of moisture vapor transmission and we suggest that qualified experts be contacted to assist in the design and construction of measures related to moisture transmission through slabs-on-grade. The American Concrete Institute (ACI) Committee document “Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials” (ACI 302.2R-06) does provide guidelines for reducing





moisture migration through slabs-on-grade. This document advises that concrete slabs be cast directly on the vapor retarder (ACI 302.2R-06, Section 9.3) and provides guidelines for selecting vapor permeance, tensile strength, and puncture resistance. When casting the slab directly on the vapor retarder, a reduced joint spacing, low shrinkage mix design, or other appropriate measures should be used to control slab curl. The ACI guide also notes that a maximum water-cement ratio of 0.5 has yielded satisfactory performance on many slab-on-grade projects. Water-reducing admixtures may be useful in achieving workability at low water-cement ratios. Control joints should be provided at appropriate intervals to control the location of shrinkage cracks. After proper curing, the slab should be allowed to dry and then should be tested to check that the moisture transmission rate is appropriate for the intended floor covering.

## **10.7 PAVEMENTS**

The contractor should maintain soil subgrades beneath pavement according to recommendations in Section 10.3 until they cover them. The Geotechnical Engineer should approve subgrades before the contractor covers them.

Condor recommends using a preliminary R-value of 10 for design of vehicular pavements based on our site and subsurface data. Condor should re-evaluate the design R-value and the pavement design during construction. Our re-evaluation should include performing R-value and particle size distribution test(s) on samples of soil exposed at pavement subgrades. The R-value of imported fill used for soil subgrades should be at least as high as the design value. Pavement designs should conform to county and municipal standards.

Class 2 aggregate base (AB) beneath pavements should comply with the minimum requirements specified in Caltrans Standard Specifications, Section 39 for 19 mm ( $\frac{3}{4}$  inch) Type B aggregate and should be compacted to 95 percent (based on ASTM Test Method D-1557). AB that becomes disturbed after compaction should be re-compacted and re-tested before paving. The Geotechnical Engineer should approve the AB surface before paving.

Paved areas should be sloped and adequately drained to prevent surface water or subsurface seepage from saturating the pavement subgrade soil. Where adjacent landscape or vacant areas slope down to pavement, provisions should be made to reduce seepage of subsurface water beneath pavements. Curbs that extend at least 6 inches below the soil subgrade could be used to reduce seepage. For better performance, we recommend that adequate surface drainage be provided and that subdrains (edge drains) be considered. Where AB is exposed along pavement shoulders, placing a subdrain or a horizontal seepage cutoff should be considered to reduce seepage of water beneath pavement from saturation of the exposed AB.

The subsections that follow present our recommendations for design of pavements.

### **10.7.1 Vehicular Asphalt Concrete (AC) Pavement**

We based our AC pavement design on the Caltrans Flexible Pavement Design Method as presented in Chapter 600 of the California Department of Transportation Highway Manual. The designs include a 0.2 factor added to the required gravel equivalent (GE) of the AC layer. The table that follows presents the resulting recommended pavement design sections for various traffic indices (TI), and design R-value of 10. AC should comply with the Caltrans material property requirements.



**Design AC Pavement Sections – R-Value = 10**

<b>Traffic Index</b>	<b>Recommended AC Thickness (feet)</b>	<b>Recommended AB Thickness (feet)</b>
4	0.20	0.60
5	0.20	0.85
6	0.25	1.05
7	0.30	1.25

AC = Asphalt Concrete

AB = Class 2 Aggregate Base (minimum R-Value = 78)

### 10.7.2 Vehicular Concrete Pavement

A modulus of subgrade reaction,  $k_v$  (30-inch circular plate) of 500 pounds per cubic inch may be used for design of vehicular concrete pavements. We recommend that exterior concrete pavements consist of at least 6 inches of concrete over 6 inches of AB.

Expansion/contraction joints should be designed and constructed. Where the outer edge of a concrete pavement meets asphalt pavement, the concrete slab should be thickened by 50 percent at a taper slope of 1 in 10 or flatter.

### 10.7.3 Pedestrian Pavements

Pedestrian pavement may be placed directly on the soil subgrade. Condor recommends consideration of placing 4 inches of AB beneath pedestrian pavement to protect the soil subgrades from disturbance caused by construction traffic, foot traffic and exposure.

## 10.8 GROUND CORROSIVITY

Appendix B presents the results of soil corrosivity tests on a sample from B-3 at a depth of 6 feet from the ground surface. Buried metal and reinforced concrete should be designed to resist corrosion based on the test results, and cement types should be specified based on the test results. Corrosion testing should be performed on imported fill that will be in contact with buried metal and concrete.

## 10.9 PERCOLATION TEST DATA

The results from the percolation tests are presented below. The percolation rates were variable, and the geologist suspects that TP-3 would have been slower over time. The test in TP-2 was performed in a loose sand at the bottom of the hole (~10 feet beneath the existing ground surface). The sand was so loose it could be dug by hand and it only took a second for the water to fully percolate in the hole.

<b>Test Pit</b>	<b>Rate (min/inch)</b>
TP-1	22
TP-2	0.1
TP-3	36

The soils at the bottom of TP-1 and TP-3 were dense to very dense which reduces percolation. If the loose sand found in TP-2 is encountered in the placement of the stormwater system, percolations rates faster than 1 minute per inch can occur. Based on the data and our experience, we conclude that rates slower than 60 minutes per inch are also quite possible at this site.



Condor recommends that additional infiltration tests be performed at the actual location and depth of the stormwater infiltration system considering the wide variability of the currently measured and expected rates. The method of infiltration test should be chosen based on the type of system that is proposed for the site.

#### **10.10 CONSTRUCTION CONSIDERATIONS**

As discussed in Section 10.1, Condor anticipates that overexcavation/recompaction will be required to provide adequate support for proposed improvements at some areas.

If earthwork during the wet season is performed, the subgrade stabilization measures may be required and drying of fill may be required to facilitate compaction.

#### **11.0 ADDITIONAL SERVICES**

Because subsurface conditions at this site vary, it is not possible to include all construction details related to geotechnical engineering aspects of the project in designs. Geotechnical engineering recommendations depend on the possible need for adjustment in the field during construction. The adjustments depend on conditions revealed during construction that Condor could previously only assume based on limited data from the site investigation described in Section 4.0. Therefore, Condor or another qualified firm should perform geotechnical engineering observations and tests during earthwork, construction of foundations, and construction of pavement. The purpose of the work during construction will be to check for subsurface conditions that vary from the conditions encountered during site investigation and to develop supplemental geotechnical engineering recommendations, as necessary. In addition, the purpose is to verify that the Contractor follows the general intent of our recommendations during construction and that they perform the geotechnical engineering aspects of the work according to the approved designs.

Because Condor understands the intent of the geotechnical engineering recommendations best, we recommend that Condor perform or oversee future phases of geotechnical engineering work, including field engineering, inspection and testing.

#### **12.0 LIMITATIONS**

The geotechnical engineering conclusions and recommendations presented in this report are intended for planning and design of the proposed improvements described in Section 2.0. These conclusions and recommendations may not apply if:

- The report is used for a different site or project
- The recommendations presented in this report are not followed
- Any other change is made that materially alters the proposed project

Condor based the conclusions and recommendations presented in this report on data obtained from the site investigation described in Section 4.0. Subsurface conditions may vary between and around the investigated locations. Should varied conditions be discovered during construction, then additional investigation, testing evaluations and development of supplemental recommendations may be required. Any person associated with the project who observes conditions or features of the site or its surrounding areas that are different from those described in the report should report them immediately to Condor for evaluation.

Implementation of our recommendations requires an adequate testing and observation program during construction as described in Section 11.0. If Condor does not perform this testing and observation, then the Geotechnical Engineer that is responsible for observation and testing should thoroughly review this report



and agree with its conclusions and recommendations or, otherwise, they should provide alternative recommendations.

Condor prepared this report according to the generally accepted current standards of geotechnical engineering practice in Stanislaus County. No other warranty, express or implied, is made. It is the Owner's responsibility to see that all parties to the project, including the designers, Contractors and Subcontractors, are made aware of this report in its entirety.

Changes in the standards of practice in the field of geotechnical engineering, changes in site conditions such as new excavations or fills, new agency regulations, or modifications to the proposed project warrant professional review of this report. Because of this, there is a practical limit to the usefulness of this report without critical professional review. We suggest that 2 years be considered a reasonable time for the validity of this report.

### 13.0 CLOSURE

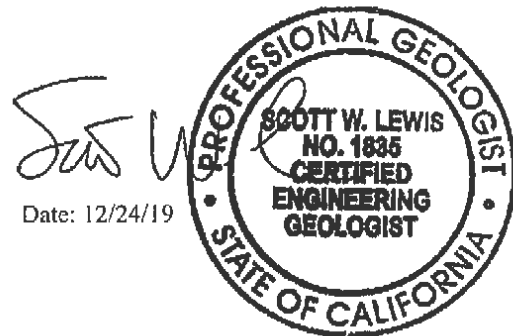
Please contact Condor if you have any questions.

Respectfully submitted,

CONDOR EARTH



Andrew S. Kositsky, GE No. 2532  
Senior Geotechnical Engineer



Scott W. Lewis, CEG No. 1835  
Principal Engineering Geologist

Cc: Donald Phillips – Teter  
Nick Prichard – Guliani & Kull, Inc.



## REFERENCES

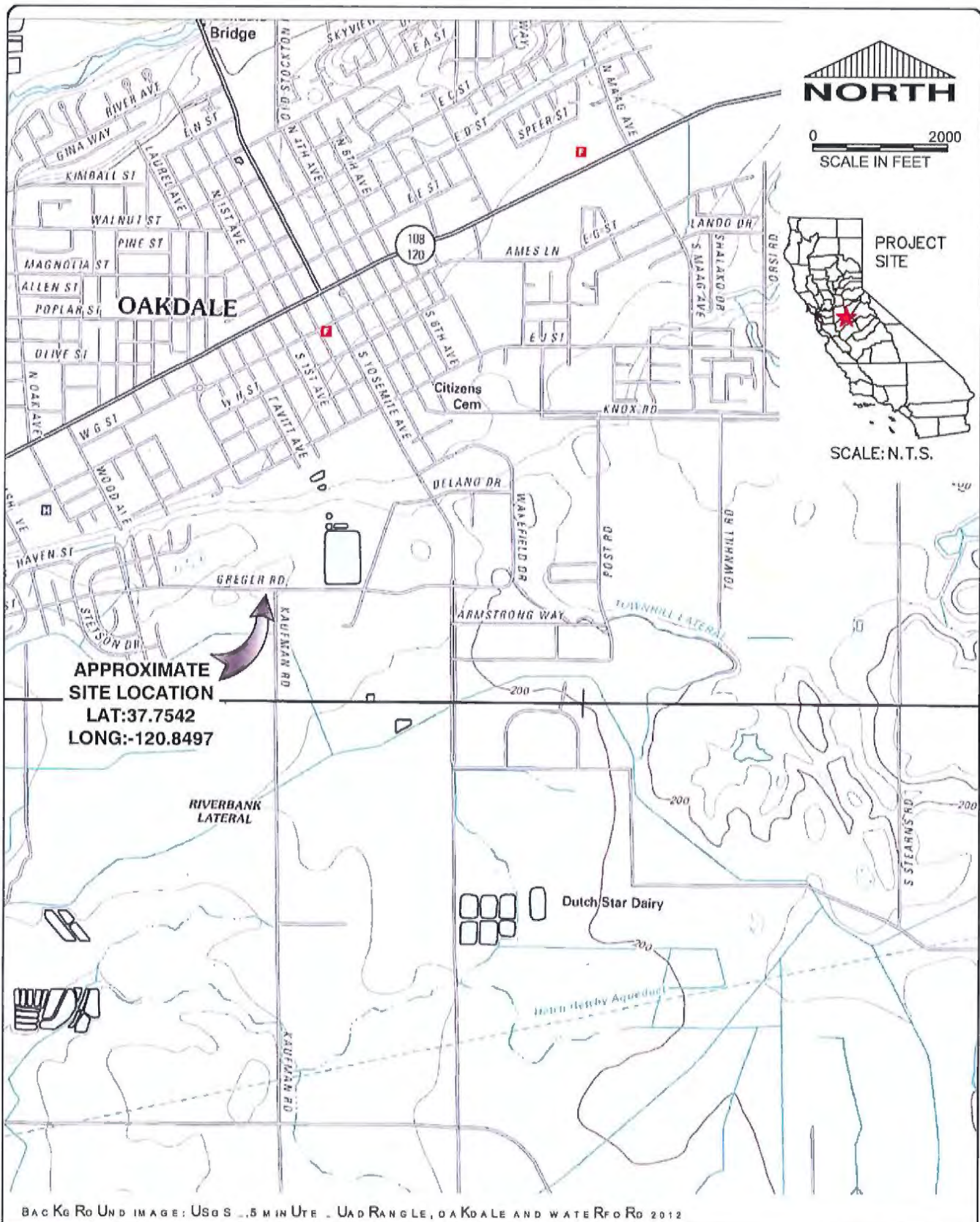
- American Concrete Institute (2006), Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials, ACI 302.2R-06
- American Society of Civil Engineers (2017), Minimum Design Loads and Associated Criteria for Buildings and Other Structures, ASCE Standard 7-16
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- California Department of Transportation (2019), Highway Design Manual
- California Geological Survey (2018), Earthquake Fault Zones, Special Publication 42
- Environmental Protection Agency, California EPA Map of Radon Zones
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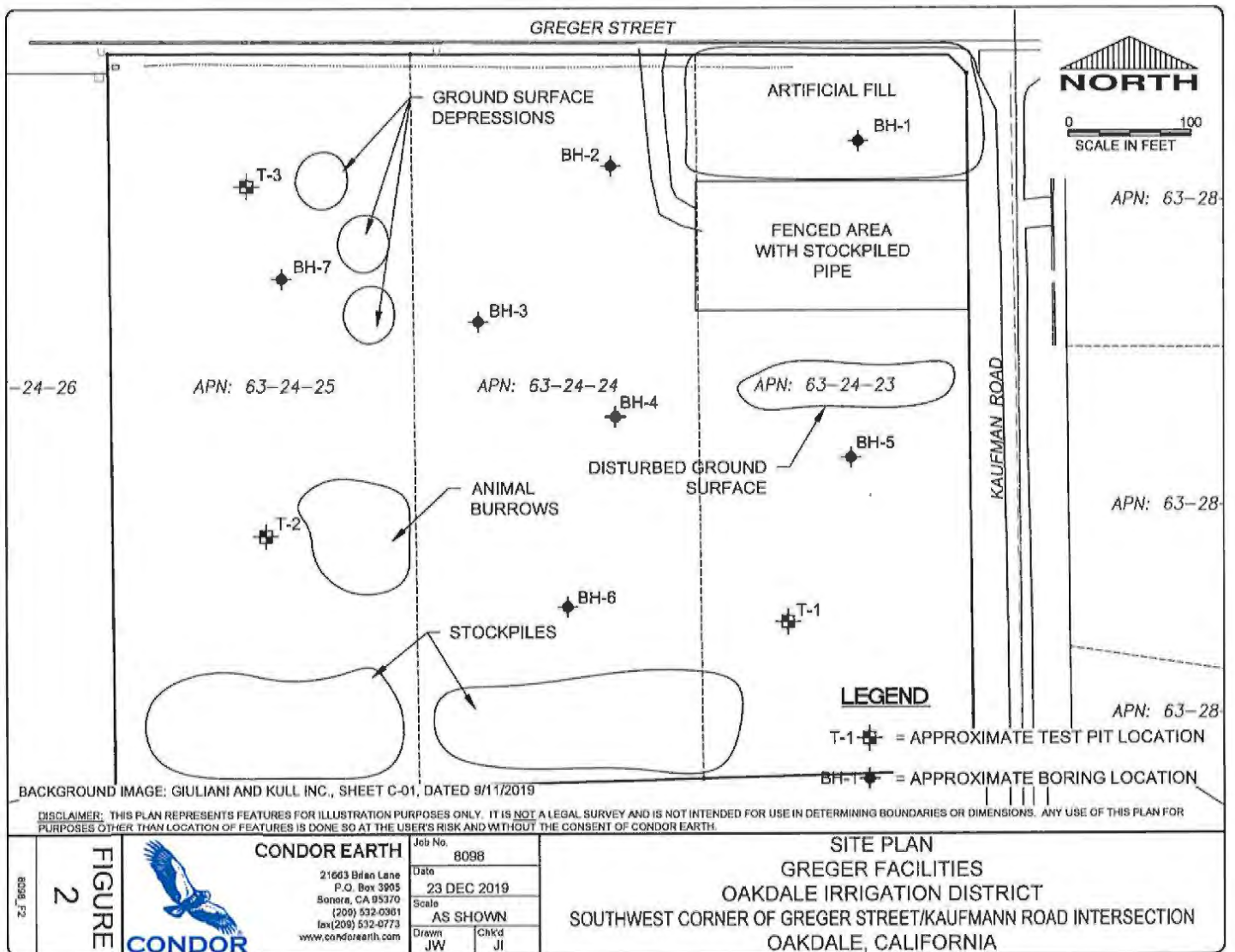


## FIGURES

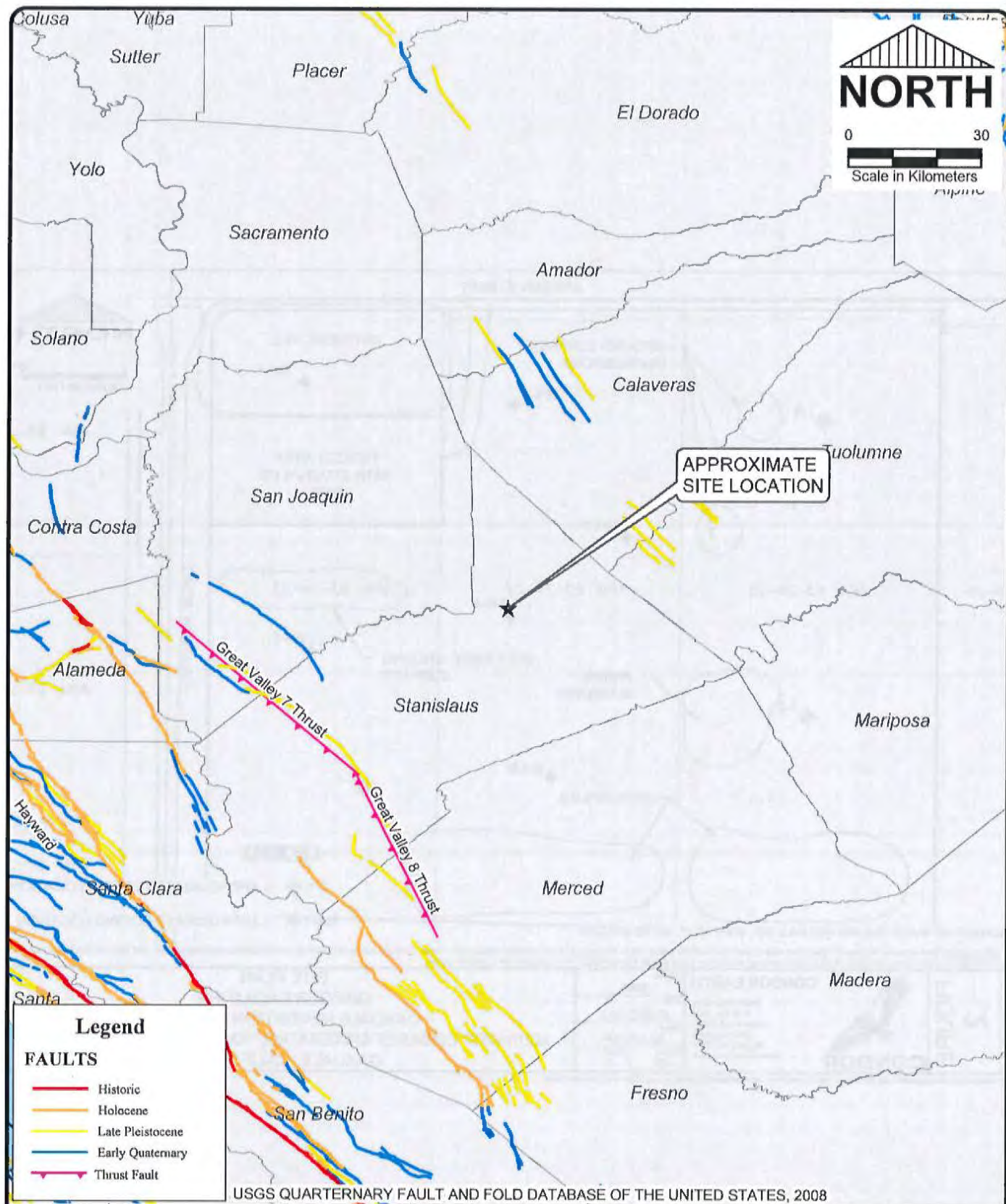





 <p><b>CONDOR EARTH</b> 2113 Brian Lane P.O. Box 3905 Sonoma, CA 95308 709.532-0311 709.532-0333 www.condorearth.com</p>	Job No. 8098	<p>INITIAL MAP</p> <p><b>GREGER FACILITIES</b></p> <p><b>OAKDALE IRRIGATION DISTRICT</b></p> <p><b>SOUTHWEST CORNER OF GREGER STREET/KAUFMANN ROAD INTERSECTION</b></p> <p><b>OAKDALE, CALIFORNIA</b></p>	<p><b>FIGURE</b></p> <p><b>1</b></p> <p>8098_F1</p>
	Date 23 DEC 2019		
	Scale AS SHOWN		
	Drawn JW		







 <p><b>CONDOR EARTH</b> 21663 Brian Lane P.O. Box 3905 Sonoma, CA 95370 (209) 532-0361 fax (209) 532-0773 www.condorearth.com</p>	Job No. <b>8098</b>	<p>REGIONAL FAULT MAP GREGER FACILITIES OAKDALE IRRIGATION DISTRICT SOUTHWEST CORNER OF GREGER STREET/KAUFMANN ROAD INTERSECTION OAKDALE, CALIFORNIA</p>	<p><b>FIGURE 3</b></p> <p>8098_OID_GregerFacilities.aprx</p>
	Date <b>23 Dec 2019</b>		
	Scale <b>AS SHOWN</b>		
	Drawn <b>JW</b>		





Job No.	8098
Date	23 DEC 2019
Scale	AS SHOWN
Drawn	JW
Chk'd	JL

**RADON MAP**  
**GREGER FACILITIES**  
**OAKDALE IRRIGATION DISTRICT**  
 SOUTHWEST CORNER OF GREGER STREET/KAUFMANN ROAD INTERSECTION  
 OAKDALE, CALIFORNIA

**FIGURE**  
**4**

F4\_8098



**APPENDIX A**  
**Boring Logs**











# UNIFIED SOIL CLASSIFICATION SYSTEM

Division	Group Symbol	Group Name
<b>Coarse-Grained Soils</b> (more than 50 percent retained or the No. 200 sieve)	<b>GW</b>	Well-graded Gravel (with Sand)
	<b>GW-GM</b>	Well-graded Gravel with Silt (and Sand)
	<b>GW-GC</b>	Well-graded Gravel with Clay (and Sand)
	<b>GP</b>	Poorly graded Gravel (with Sand)
	<b>GP-GM</b>	Poorly graded Gravel with Silt (and Sand)
	<b>GP-GC</b>	Poorly graded Gravel with Clay (and Sand)
	<b>GM</b>	Silty Gravel (with Sand)
	<b>GC</b>	Clayey Gravel (with Sand)
	<b>SW</b>	Well-graded Sand (with Gravel)
	<b>SW-SM</b>	Well-graded Sand with Silt (and Gravel)
	<b>SW-SC</b>	Well-graded Sand with Clay (and Gravel)
	<b>SP</b>	Poorly graded Sand (with Gravel)
	<b>SP-SM</b>	Poorly graded Sand with Silt (and Gravel)
	<b>SP-SC</b>	Poorly graded Sand with Clay (and Gravel)
	<b>SM</b>	Silty Sand (with Gravel)
	<b>SC</b>	Clayey Sand (with Gravel)
<b>Fine-Grained Soils</b> (50 percent or more passing the No. 200 sieve)	<b>ML</b>	Silt (with Sand or Gravel), Sandy Silt (with Gravel), Gravelly Silt (with Sand)
	<b>CL-ML</b>	Silty Clay (with Sand or Gravel), Sandy Silty Clay (with Gravel), Gravelly Silty Clay (with Sand)
	<b>CL</b>	Lean Clay (with Sand or Gravel), Sandy lean Clay (with Gravel), Gravelly lean Clay (with Sand)
	<b>OL</b>	Organic Clay (with Sand or Gravel), Sandy organic Clay (with Gravel), Gravelly organic Clay (with Sand), organic Silt (with Sand or Gravel), Sandy organic Silt (with Gravel), Gravelly organic Silt (with Sand)
	<b>MH</b>	Elastic Silt (with Sand or Gravel), Sandy elastic Silt (with Gravel), Gravelly elastic Silt (with Sand)
	<b>CH</b>	Fat Clay (with Sand or Gravel), Sandy fat Clay (with Gravel), Gravelly fat Clay (with Sand)
	<b>OH</b>	Organic Clay (with Sand or Gravel), Sandy organic Clay (with Gravel), Gravelly organic Clay (with Sand), organic Silt (with Sand or Gravel), Sandy organic Silt (with Gravel), Gravelly organic Silt (with Sand)
	<b>PT</b>	Peat and other highly organic soils
<b>Highly Organic Soils</b>		

**Note:** Percentages are by dry weight. Soil classifications based on some criteria that are not shown. Group Name items in parentheses may or may not apply, depending on percent of sand or gravel.

Coarse Grained Soil Definitions	
Fraction	Particle Dimension or U.S. Standard Sieve Size/No.
Boulders	Above 12"
Cobbles	12" to 3"
Gravel - coarse - fine	3" to 3/4" 3/4" to No. 4
Sand - coarse - medium - fine	No. 4 to No. 10 No. 10 to No. 40 No. 40 to No. 200

	Split-barrel, 3-inch O.D., 2.43-inch I.D.
	Split-barrel, 2.5-inch O.D., 1.93-inch I.D.
	Standard Penetration Test (SPT), 2.0-inch O.D., 1.375-inch I.D.
	Shelby Tube
	Disturbed sample
	No recovery
	Groundwater level during drilling
	Subsequent groundwater level

**Note:** O.D. = outside diameter I.D. = inside diameter



CONDOR EARTH TECHNOLOGIES, INC.

## LOG LEGEND AND SOIL CLASSIFICATION

# CONDOR EARTH LOG OF BORING B-1



Sheet 1 of 1

**Project:** Greger Facilities - Oakdale Irrigation District  
Southwest Quadrant of Greger Street/Kaufman  
Road Intersection  
Oakdale, California

**Location:** See Figure 2

**Approx. Coord.:**

**Approx. Elev. (ft):** 191

**Approx. Depth (ft):** 15

**Diameter (in):** 4

**Driller:** West Coast Exploration, Inc.

**Equipment:** Continuous flight augers, 140-lb. hammer - 30-in. drop - rope-and-cathead

**Project No:** 8098

**Logged By:** J. Ingram

**Date:** 10/31/19

Depth (ft)	Sample	Blows per Foot	USCS Classification	Description	Moisture Content (%)	Dry Density (pcf)	Undrained Shear Strength (psf)	Fines (%)	Other Tests
1		27	SM	SILTY SAND: brown, dry to moist, medium dense, fine to coarse					
2									
3									
4		17	SC	CLAYEY SAND: red-brown, dry to moist, medium dense	8.0	121			
5									
6									
7									
8									
9									
10		22	SC AND SM	CLAYEY SAND AND SILTY SAND (INTERLAYERS): brown, dry to moist, medium dense				20	
11									
12									
13									
14		57/6"	SM	SILTY SAND: brown, dry to moist, very dense					
15		62/6"							
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

**Groundwater:** None encountered during drilling

**Notes:**

# CONDOR EARTH LOG OF BORING B-2



Sheet 1 of 1

**Project:** Greger Facilities - Oakdale Irrigation District  
Southwest Quadrant of Greger Street/Kaufman  
Road Intersection  
Oakdale, California

**Location:** See Figure 2

**Approx. Coord.:**

**Approx. Elev. (ft):** 192

**Approx. Depth (ft):** 18

**Diameter (in):** 4

**Driller:** West Coast Exploration, Inc.

**Equipment:** Continuous flight augers, 140-lb. hammer - 30-  
in. drop - rope-and-cathead

**Project No:** 8098

**Logged By:** J. Ingram

**Date:** 10/31/19

Depth (ft)	Sample	Blows per Foot	USCS Classification	Description	Moisture Content (%)	Dry Density (pcf)	Undrained Shear Strength (psf)	Fines (%)	Other Tests
1			SC	CLAYEY SAND: red-brown, dry to moist, dense to very dense, fine to coarse					
2									
3									
4									
5									
6		50/6"		5.5 ft: red-brown, very dense, fine, with fine gravel	9.0	122			
7									
8									
9									
10									
11		30	SM	SILTY SAND WITH GRAVEL: brown, moist, medium dense, fine to coarse, fine gravel					
12									
13									
14									
15									
16		56		15 ft: dense					
17		30							
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

**Groundwater:** None encountered during drilling

**Notes:**

# CONDOR EARTH LOG OF BORING B-3



Sheet 1 of 1

**Project:** Greger Facilities - Oakdale Irrigation District  
Southwest Quadrant of Greger Street/Kaufman  
Road Intersection  
Oakdale, California

**Location:** See Figure 2  
**Approx. Coord.:**  
**Approx. Elev. (ft):** 189  
**Approx. Depth (ft):** 17.5  
**Diameter (in):** 4  
**Driller:** West Coast Exploration, Inc.  
**Equipment:** Continuous flight augers, 140-lb. hammer - 30-  
in. drop - rope-and-cathead

**Project No:** 8098  
**Logged By:** J. Ingram  
**Date:** 10/31/19

Depth (ft)	Sample	Blows per Foot	USCS Classification	Description	Moisture Content (%)	Dry Density (pcf)	Undrained Shear Strength (psf)	Fines (%)	Other Tests
1			SC	CLAYEY SAND: dark brown, moist, medium dense, fine to coarse					
2									
3									
4									
5									
6		27	SP-SC	POORLY GRADED SAND WITH CLAY AND GRAVEL: brown, moist, medium dense coarse					
7									
8									
9		34	SC	CLAYEY SAND: red-brown, moist, medium dense				18	
10									
11									
12									
13									
14									
15		53/6"	SP-SC	POORLY GRADED SAND WITH CLAY: light brown, moist, very dense					
16		73							
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

**Groundwater:** None encountered during drilling

**Notes:**



# CONDOR EARTH LOG OF BORING B-4



Sheet 1 of 1

**Project:** Greger Facilities - Oakdale Irrigation District  
Southwest Quadrant of Greger Street/Kaufman  
Road Intersection  
Oakdale, California

**Location:** See Figure 2

**Approx. Coord.:**

**Approx. Elev. (ft):** 190

**Approx. Depth (ft):** 17

**Diameter (In):** 4

**Driller:** West Coast Exploration, Inc.

**Equipment:** Continuous flight augers, 140-lb. hammer - 30-in. drop - rope-and-cathead

**Project No:** 8098  
**Logged By:** J. Ingram  
**Date:** 10/31/19

Depth (ft)	Sample	Blows per Foot	USCS Classification	Description	Moisture Content (%)	Dry Density (pcf)	Undrained Shear Strength (psf)	Fines (%)	Other Tests
1			SC	CLAYEY SAND: dark brown, dry, medium dense, fine					
2									
3									
4									
5		55/6"		5 ft: yellow-brown, very dense	6.4	125	4000		
6									
7									
8									
9									
10									
11		88							
12									
13									
14									
15		62/6"	SP-SC	POORLY GRADED SAND WITH CLAY: brown, dry, very dense, with					
16		52/6"							
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

**Groundwater:** None encountered during drilling

**Notes:**

# CONDOR EARTH LOG OF BORING B-5



Sheet 1 of 1

**Project:** Greger Facilities - Oakdale Irrigation District  
Southwest Quadrant of Greger Street/Kaufman  
Road Intersection  
Oakdale, California

**Location:** See Figure 2

**Approx. Coord.:**

**Approx. Elev. (ft):** 190

**Approx. Depth (ft):** 18

**Diameter (in):** 4

**Driller:** West Coast Exploration, Inc.

**Equipment:** Continuous flight augers, 140-lb. hammer - 30-  
in. drop - rope-and-cathead

**Project No:** 8098  
**Logged By:** J. Ingram  
**Date:** 10/31/19

Depth (ft)	Sample	Blows per Foot	USCS Classification	Description	Moisture Content (%)	Dry Density (pcf)	Undrained Shear Strength (psf)	Fines (%)	Other Tests
1			SC	CLAYEY SAND: dark brown, moist, very dense, fine to coarse					
2									
3									
4									
5		63/6"							
6				5 ft: red-brown, very dense	9.0	89			
7									
8									
9									
10		55/6"							
11				10.5 ft: with gravel					
12		61		11 ft: no gravel				18	
13									
14									
15									
16		73	SM	SILTY SAND: brown, moist, very dense					
17									
18		40							
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

**Groundwater:** None encountered during drilling

**Notes:**

# CONDOR EARTH LOG OF BORING B-6



Sheet 1 of 1

**Project:** Greger Facilities - Oakdale Irrigation District  
Southwest Quadrant of Greger Street/Kaufman  
Road Intersection  
Oakdale, California

**Location:** See Figure 2

**Approx. Coord.:**

**Approx. Elev. (ft):** 188

**Approx. Depth (ft):** 18

**Diameter (In):** 4

**Driller:** West Coast Exploration, Inc.

**Equipment:** Continuous flight augers, 140-lb. hammer - 30-  
in. drop - rope-and-cathead

**Project No:** 8098

**Logged By:** J. Ingram

**Date:** 10/31/19

Depth (ft)	Sample	Blows per Foot	USCS Classification	Description	Moisture Content (%)	Dry Density (pcf)	Undrained Shear Strength (psf)	Fines (%)	Other Tests
1		40	SC	CLAYEY SAND: red-brown, dry to moist, medium dense to very dense, fine	8.9	113			
2		58/6"		1.5 ft: very dense	8.3	126	3200		
3									
4									
5									
6									
7									
8									
9									
10									
11		57	SM	SILTY SAND WITH GRAVEL: brown, moist, dense, fine to coarse				9	
12			SP-SC	POORLY GRADED SAND WITH CLAY AND GRAVEL: yellow-brown, moist, dense, fine to coarse					
13									
14									
15									
16		54	SM	SILTY SAND: brown, moist, dense, fine to coarse					
17			SP	POORLY GRADED SAND: brown, moist, dense, coarse					
18		34							
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

**Groundwater:** None encountered during drilling

**Notes:**

# CONDOR EARTH LOG OF BORING B-7



Sheet 1 of 1

**Project:** Greger Facilities - Oakdale Irrigation District  
Southwest Quadrant of Greger Street/Kaufman  
Road Intersection  
Oakdale, California

**Location:** See Figure 2

**Approx. Coord.:**

**Approx. Elev. (ft):** 191

**Approx. Depth (ft):** 15.5

**Diameter (in):** 4

**Driller:** West Coast Exploration, Inc.

**Equipment:** Continuous flight augers, 140-lb. hammer - 30-in. drop - rope-and-cathead

**Project No:** 8098  
**Logged By:** J. Ingram  
**Date:** 10/31/19

Depth (ft)	Sample	Blows per Foot	USCS Classification	Description	Moisture Content (%)	Dry Density (pcf)	Undrained Shear Strength (psf)	Fines (%)	Other Tests
1		33	SM	SILTY SAND: brown, dry, medium dense, fine					
2			SC	CLAYEY SAND: red-brown, dry to moist, medium dense, fine to coarse					
3									
4		28			9.7	127	3110		
5									
6									
7									
8									
9									
10		27						18	
11									
12									
13									
14		53/6"	SM	SILTY SAND: light brown, moist, very dense, fine to coarse					
15									
16		90	SC	CLAYEY SAND: light brown, moist, very dense, fine to coarse					
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

**Groundwater:** None encountered during drilling

**Notes:**

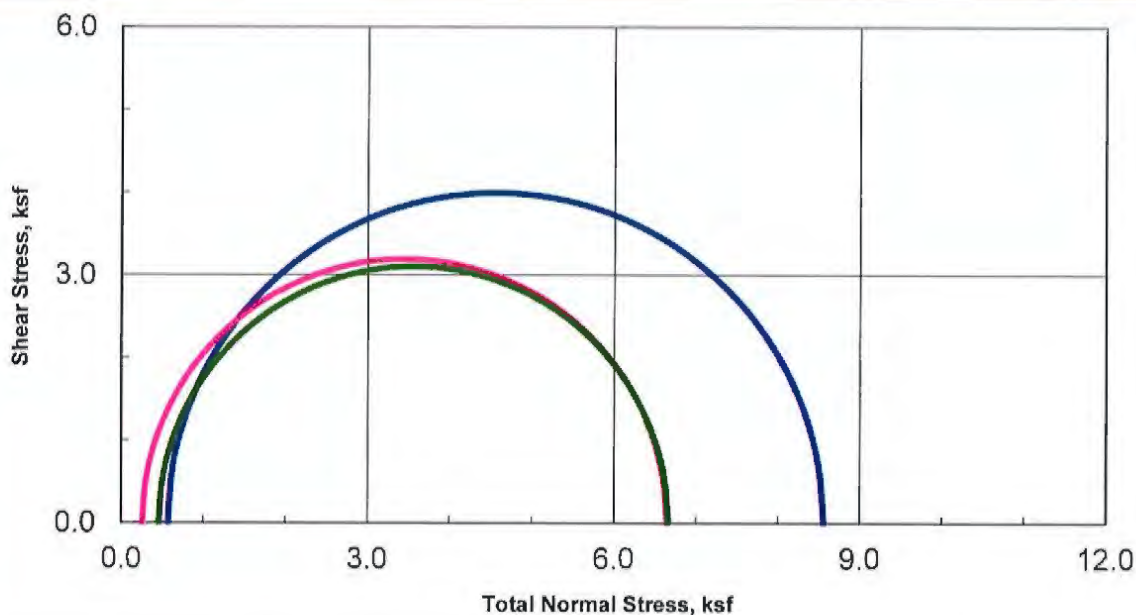
**APPENDIX B**  
**Laboratory Test Reports**



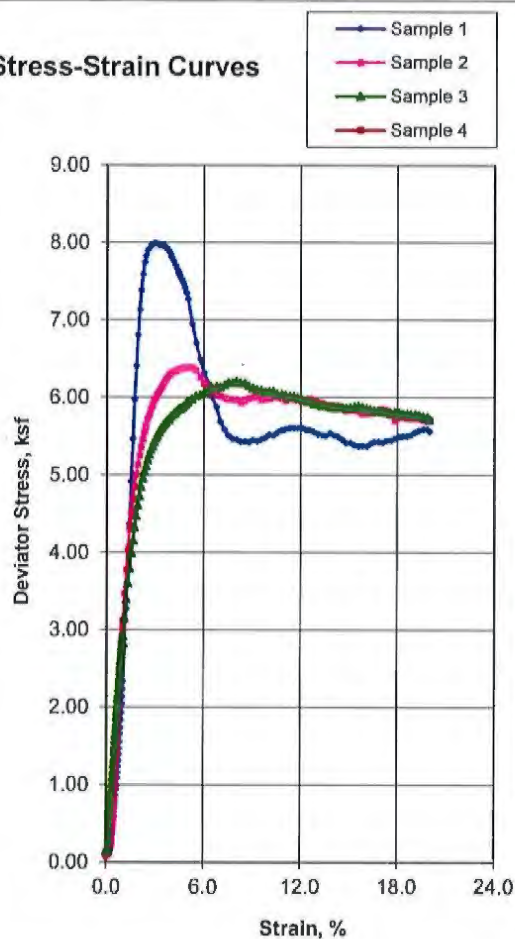




## Unconsolidated-Undrained Triaxial Test ASTM D2850



Stress-Strain Curves



Sample Data

	1	2	3	4
Moisture %	6.4	8.3	9.7	
Dry Den,pcf	124.7	125.6	126.8	
Void Ratio	0.351	0.342	0.329	
Saturation %	49.4	65.3	79.9	
Height in	5.05	5.06	5.02	
Diameter in	2.38	2.40	2.42	
Cell psi	3.9	1.8	3.2	
Strain %	2.93	5.04	8.05	
Deviator, ksf	7.992	6.391	6.210	
Rate %/min	1.00	1.00	1.00	
in/min	0.051	0.050	0.050	
Job No.:	107-235			
Client:	Condor Earth			
Project:	8098			
Boring:	B4	B6	B7	
Sample:				
Depth ft:	5.5	2.5	4.5	

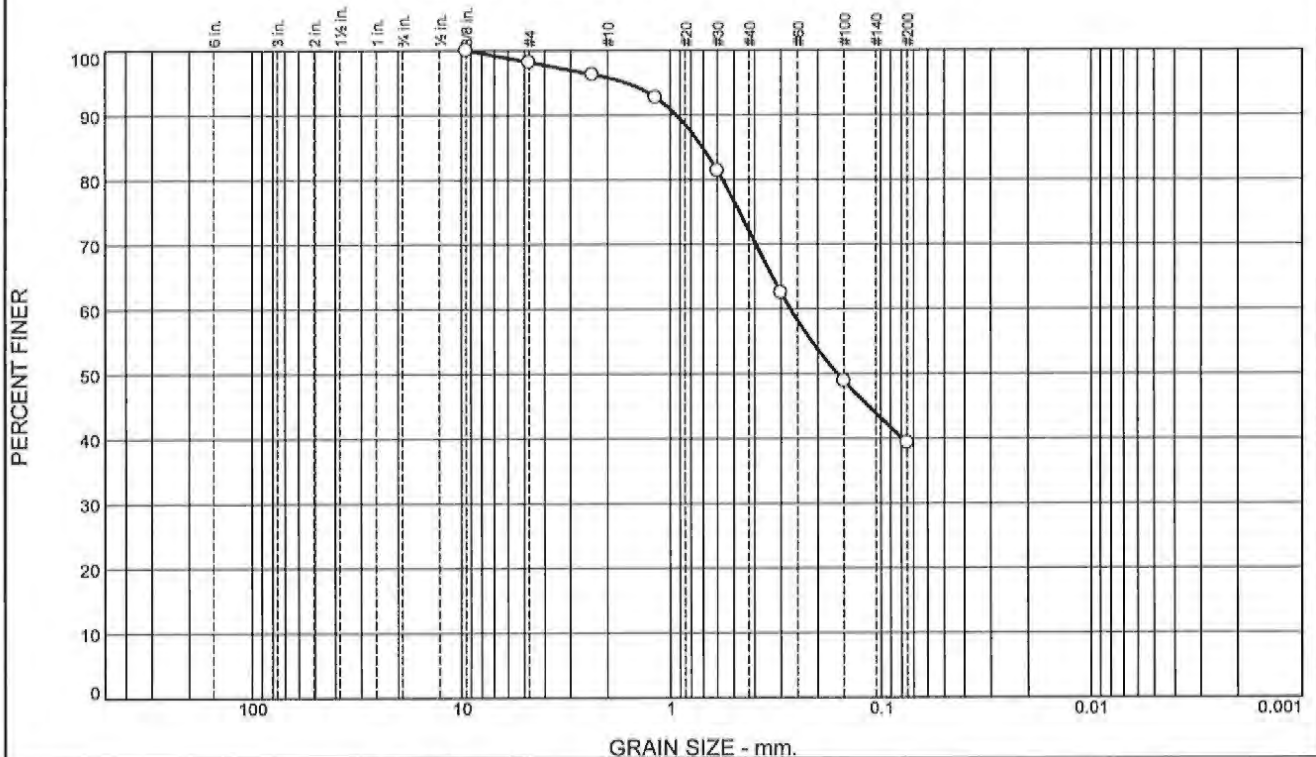
Visual Soil Description

Sample #	
1	Yellowish Brown Clayey SAND
2	Reddish Brown Clayey SAND
3	Reddish Brown Clayey SAND
4	

Remarks:

Note: Strengths are picked at the peak deviator stress or 15% strain which ever occurs first per ASTM D2850.

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	1.8	2.4	23.7	32.8	39.3	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/8"	100.0		
#4	98.2		
#8	96.3		
#16	92.7		
#30	81.4		
#50	62.5		
#100	48.8		
#200	39.3		

\* (no specification provided)

## Material Description

Brown Clayey Sand

**Atterberg Limits**  
 PL=      LL=      PI=  
**Coefficients**  
 D<sub>90</sub>= 0.9410      D<sub>85</sub>= 0.7055      D<sub>60</sub>= 0.2706  
 D<sub>50</sub>= 0.1613      D<sub>30</sub>=      D<sub>15</sub>=  
 D<sub>10</sub>=      C<sub>u</sub>=      C<sub>c</sub>=

**Classification**  
 USCS=      AASHTO=

F.M.=1.20  
**Remarks**

Location: Greger and Kaufman Road Intersection  
 Sample Number: SA-1 11/20/2019

Date: 11/20/2019

**CONDOR**  
**EARTH TECHNOLOGIES, INC.**  
**Stockton, California**

Client: Oakdale Irrigation District  
 Project: New Office Facility

Project No: 8098

Figure

Tested By: E.Carrasco

Checked By: R.Skaggs



## CONDOR EARTH TECHNOLOGIES, INC.

21663 Brian Lane, P.O. Box 3905, Sonoma, CA 95370 (209) 532-0361/0773(f)

188 Frank West Circle Suite 1, Stockton, CA 95206 (209) 234-0518/0538(f)

17857 High School Road, Jamestown, CA 95327 (209) 984-4593/4596(f)

[www.condorearth.com](http://www.condorearth.com)

### *Resistance "R" Value Test Report (California Test 301)*

CET Job: 8098

Client: Oakdale Irrigation District

Project: Administration Facility

Sample ID : TP-3

Soil Description: **Brown clayey sand**

Date Received: **October 31, 2019**

Tested by: **E.Carrasco**

Sample Source: **RV-1**

Depth of Sample: **Subgrade**

Specimen Number	1	2	3	4
Exudation Pressure (psi)	500.4	120.4	182.3	-
Expansion Pressure (psf)	0.0	0.0	0.0	0.0
Resistance Value, "R"	22.0	4.0	4.0	-
Moisture Content at Test (%)	10.0	11.4	10.7	-
Dry Density at Test (pcf)	122.4	119.8	121.0	-
Initial Moisture Content (%)	4.8			
<b>R-Value by Exudation Pressure = 7.0</b>				
<b>R-Value by Expansion Pressure = 100.0</b>				
Assumed/Given TI = 4.0				
<b>R-Value Design = 7.0</b>				



1100 Willow Pass Court, Suite A  
Concord, CA 94520-1006

925 462 2771 Fax. 925 462 2775

www.cercoanalytical.com

3 December, 2019

Job No. 1911102

Cust. No. 12016

Mr. Jon Ingram  
Condor Earth Technologies, Inc.  
P.O. Box 3905  
Sonora, CA 95370

Subject: Project No.: 8098  
Project Name: OLD New Facility  
Corrosivity Analysis – ASTM Test Methods

Dear Mr. Ingram:

Pursuant to your request, CERCO Analytical has analyzed the soil sample submitted on November 15, 2019. Based on the analytical results, this brief corrosivity evaluation is enclosed for your consideration.

Based upon the resistivity measurement, this sample is classified as "moderately corrosive". All buried iron, steel, cast iron, ductile iron, galvanized steel and dielectric coated steel or iron should be properly protected against corrosion depending upon the critical nature of the structure. All buried metallic pressure piping such as ductile iron firewater pipelines should be protected against corrosion.

The chloride ion concentration reflects none detected with a reporting limit of 15 mg/kg.

The sulfate ion concentration reflects none detected with a reporting limit of 15 mg/kg.

The pH of the soil is 6.08 which does not present corrosion problems for buried iron, steel, mortar-coated steel and reinforced concrete structures.

The redox potential is 310-mV and is indicative of potentially "slightly corrosive" soils resulting from anaerobic soil conditions.

This corrosivity evaluation is based on general corrosion engineering standards and is non-specific in nature. For specific long-term corrosion control design recommendations or consultation, please call *JDH Corrosion Consultants, Inc.* at (925) 927-6630.

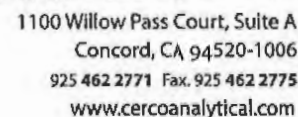
We appreciate the opportunity of working with you on this project. If you have any questions, or if you require further information, please do not hesitate to contact us.

Very truly yours,  
CERCO ANALYTICAL, INC.

A handwritten signature in black ink, appearing to read 'J. Darby Howard Jr.', is written over the printed name.

J. Darby Howard Jr., P.E.  
President

JDH/jdl  
Enclosure




Date of Report: 3-Dec-2019

[illegible]

Method:	ASTM D1498	ASTM D4972	ASTM D1125M	ASTM G57	ASTM D4658M	ASTM D4327	ASTM D4327
Reporting Limit:	-	-	10	-	50	15	15
Date Analyzed:	27-Nov-2019	27-Nov-2019	-	2-Dec-2019	-	27-Nov-2019	27-Nov-2019

\* Results Reported on "As Received" Basis  
N.D. - None Detected

Date Analyzed: \_\_\_\_\_  
  
 Cheryl McMillen  
 Laboratory Director

**Quality Control Summary** - All laboratory quality control parameters were found to be within established limits



## Condor Earth Laboratory Test Request

CA 191109

Submitted by: Jon Ingram  
Tele. Number: 209-601-7854  
Fax Number:  
Email Address: [jingram@condorearth.com](mailto:jingram@condorearth.com)  
Notes:

[illegible]

USPS  
Dwang and 11/15/19 1332

**APPENDIX C**  
**Test Pit Logs and Percolation Test Data/Calculations**



# CONDOR EARTH TECHNOLOGIES, INC.

## LOG OF TEST PIT - 1



**Project:** Greger Facilities - Oakdale Irrigation District  
Southwest Quadrant of Greger Street/Kaufman  
Road Intersection  
Oakdale, California

**Project No.:**

**Logged By:** Corin Musick

**Date:** 11/12/19

**Location:** 1110 Kaufman Rd. Oakdale, Ca. 95361

**Approx. Coord.:** 37°45'10.99" °N, 120° 50'59.25" °W

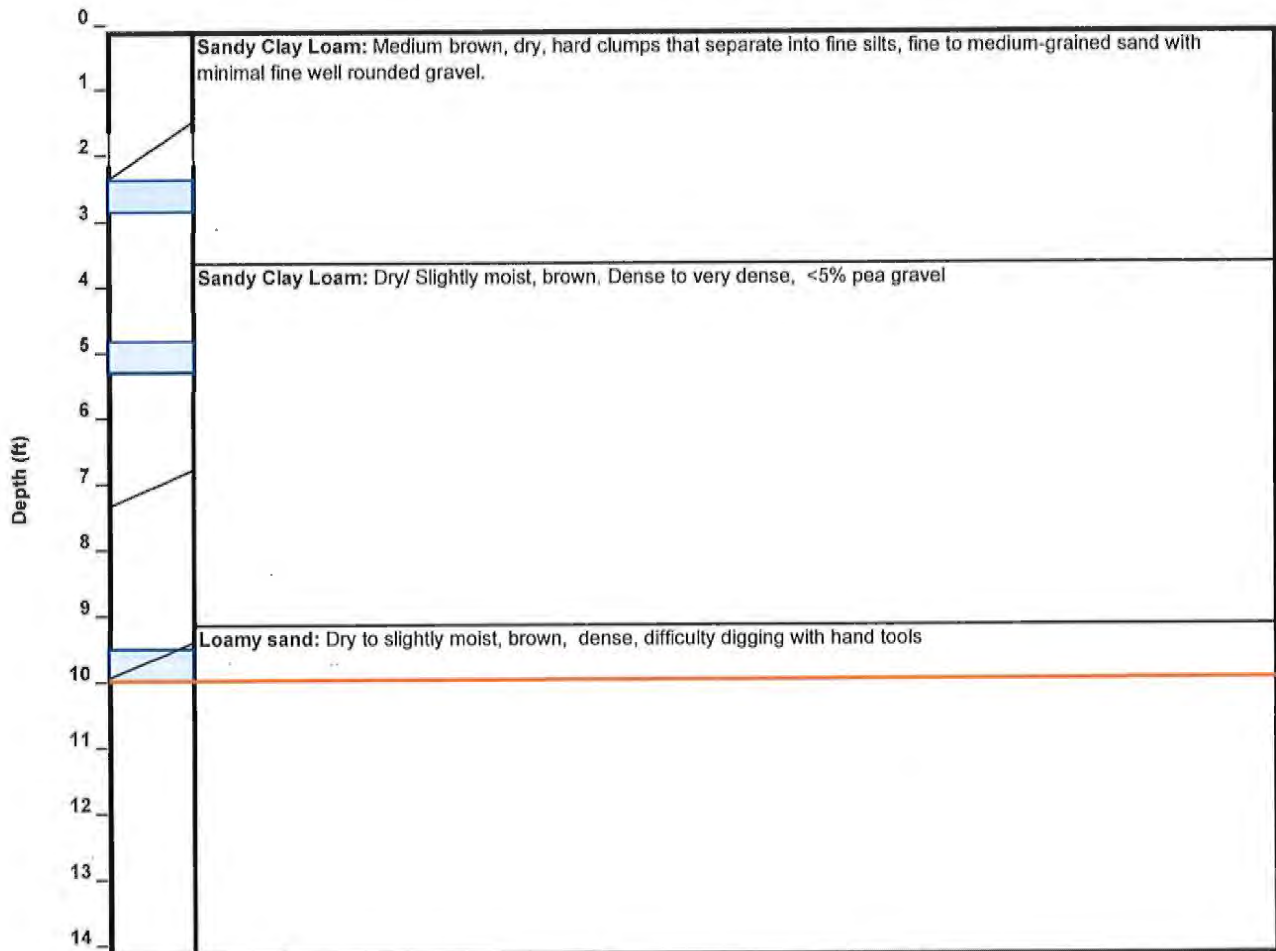
**Approx. Elev. (ft):** 186'

**Approx. Depth (ft):** 9'

**Approx. Length (ft):** 15'

**Orientation:** North-South

**Equipment:** E50 Bobcat (12 ton)



**GROUNDWATER:** None

**SAMPLE:** 3 bagged loose samples

**NOTES:** Top layers to 2.5' were hard/ broke apart to very fine clay/silts.

### LEGEND:

PP = Pocket Penetrometer Resistance - Unconfined Compressive Strength (tons per square foot)

F = Percent Passing No. 200 Sieve by Dry Weight, LL = Liquid Limit, PI = Plasticity Index

w = Moisture Content (percent),  $\gamma_d$  = Dry Unit Weight (pounds per cubic foot)

$q_u$  = Unconfined Compressive Strength - Laboratory (pounds per square foot)

$S_u$  = Undrained Shear Strength (pounds per square foot)

Drained Shear Strength Parameters:  $c'$  = Cohesion (pounds per square foot),  $\phi'$  = Internal Friction Angle (deg)

# CONDOR EARTH TECHNOLOGIES, INC.

## LOG OF TEST PIT - 2

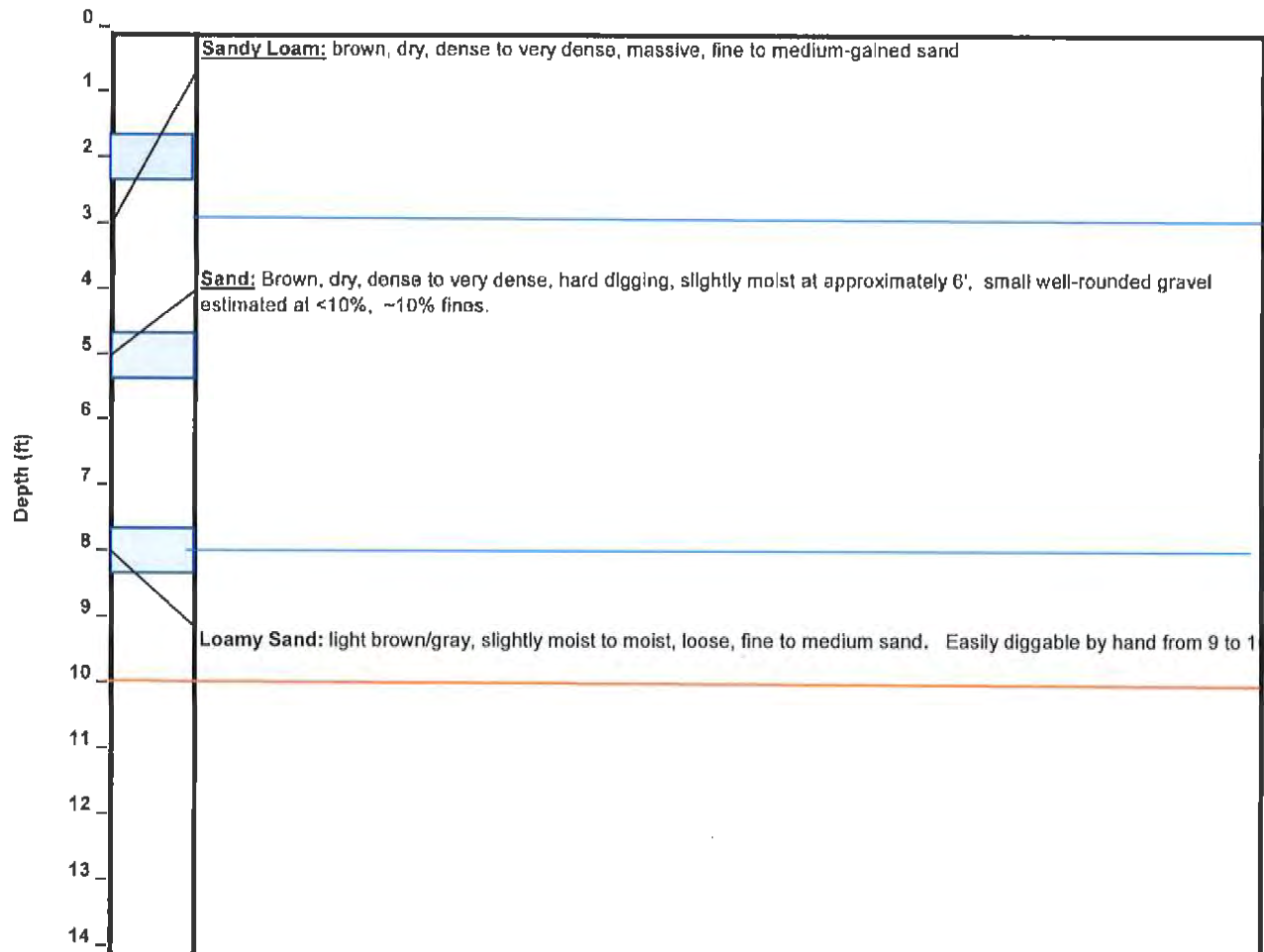


**Project:** Greger Facilities - Oakdale Irrigation District  
Southwest Quadrant of Greger Street/Kaufman  
Road Intersection  
Oakdale, California

**Location:** 1110 Kaufman Rd. Oakdale, Ca. 95361

**Project No.:**  
**Logged By:** Corin Musick  
**Date:** 11/12/19

**Approx. Coord.:** 37°45'11.53" °N, 120° 51'04.67°W  
**Approx. Elev. (ft):** 186'  
**Approx. Depth (ft):** 9'  
**Approx. Length (ft):** 15'  
**Orientation:** East-West  
**Equipment:** E50 Bobcat (12 ton)



**GROUNDWATER:** None  
**SAMPLE:** 3 loose bagged samples  
**NOTES:** Very high percolation.

### LEGEND:

PP = Pocket Penetrometer Resistance - Unconfined Compressive Strength (tons per square foot)  
F = Percent Passing No. 200 Sieve by Dry Weight, LL = Liquid Limit, PI = Plasticity Index  
w = Moisture Content (percent),  $\gamma_d$  = Dry Unit Weight (pounds per cubic foot)  
 $q_u$  = Unconfined Compressive Strength - Laboratory (pounds per square foot)  
 $S_u$  = Undrained Shear Strength (pounds per square foot)  
Drained Shear Strength Parameters:  $c'$  = Cohesion (pounds per square foot),  $\phi'$  = Internal Friction Angle (deg)

# CONDOR EARTH TECHNOLOGIES, INC.

## LOG OF TEST PIT - 3



Project:

Location:

1110 Kaufman Rd. Oakdale, Ca. 95361

Project No.:

Logged By:

Date:

Corin Musick

11/12/19

Approx. Coord.:

37°45'14.60" °N, 120°51'04.94" °W

Approx. Elev. (ft):

188'

Approx. Depth (ft):

10'

Approx. Length (ft):

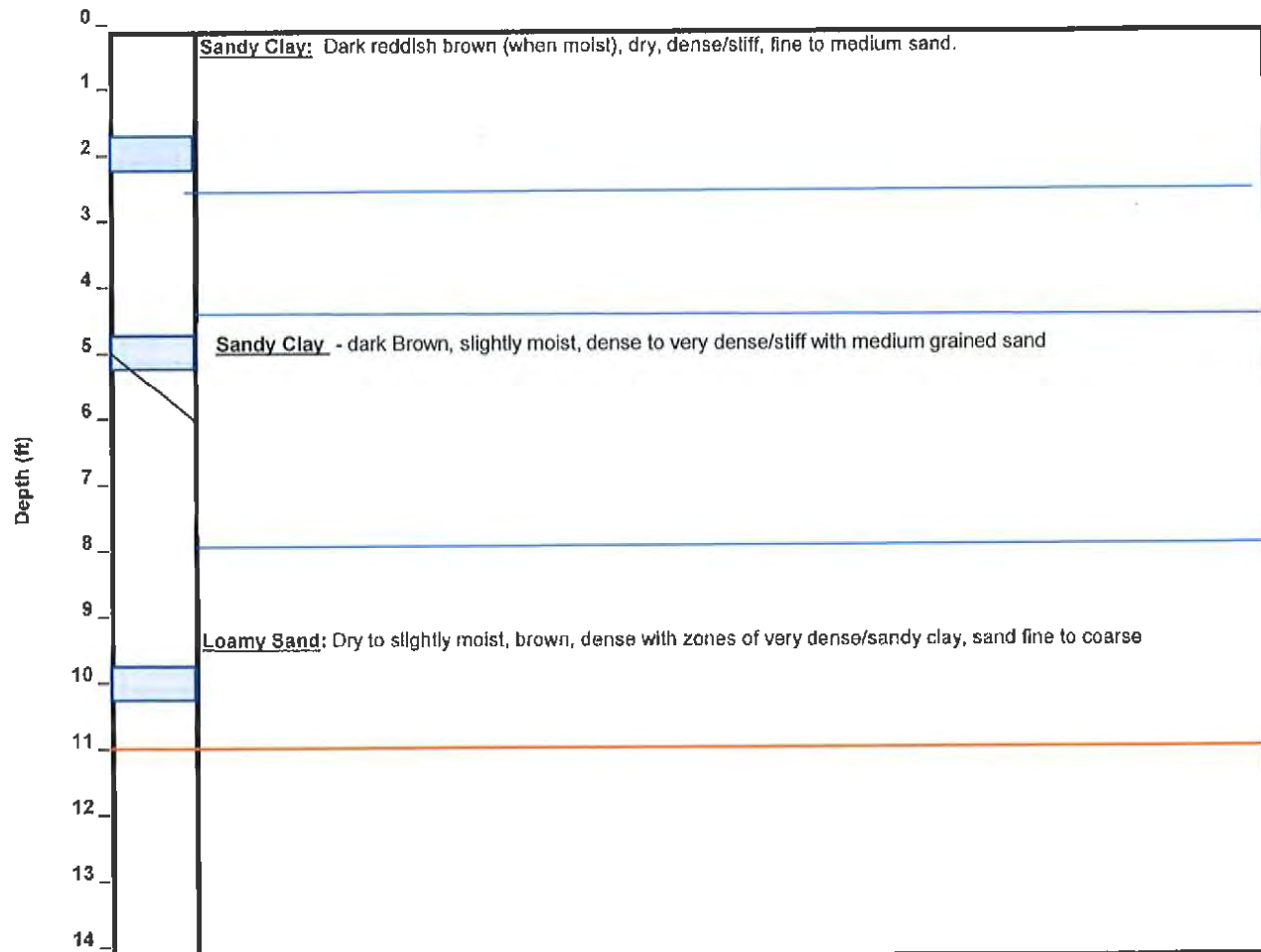
15'

Orientation:

North - South

Equipment:

E50 Bobcat (12 ton)



GROUNDWATER:

None

SAMPLE:

Three loose bagged samples

NOTES:

No perc, very dense silt/clay and rock.

### LEGEND:

PP = Pocket Penetrometer Resistance - Unconfined Compressive Strength (tons per square foot)

F = Percent Passing No. 200 Sieve by Dry Weight, LL = Liquid Limit, PI = Plasticity Index

w = Moisture Content (percent),  $\gamma_d$  = Dry Unit Weight (pounds per cubic foot)

$q_u$  = Unconfined Compressive Strength - Laboratory (pounds per square foot)

$S_u$  = Undrained Shear Strength (pounds per square foot)

Drained Shear Strength Parameters:  $c'$  = Cohesion (pounds per square foot),  $\phi'$  = Internal Friction Angle (deg)





**CONDOR EARTH TECHNOLOGIES, INC.**

21663 Brian Lane/PO Box 3905

Sonora, CA 95370

209.532.0361

[www.condorearth.com](http://www.condorearth.com)

**PERCOLATION TEST DATA SHEET**

Date of Test: 11/12/2019

Location: 1110 Kaufman Road, Oakdale Ca. 95360

Owner: OID

Performed By: Corin Musick

Certified By: David Belt

Test Pit 1

Diameter of Hole: 6 (6" - 8" Std.)

Diameter of Reservoir: 4 (4" Std.)

Water Depth in Hole 8 (8" Std.) Presoak Start (Date/Time) 11/11/2019 10:25 a.m. Dur. 24.5 (hrs.)

Hole No. P1 Depth 10 - 11 ft	Time Interval (minutes)	Reservoir Level (mls) <sup>1</sup>	Level Change in Reservoir (inches) <sup>2</sup>	Calculated Level Change in Hole (inches) <sup>3</sup>	Percolation Rate (min./inch)	Slowest Rate (min./inch)
Time						
11:09:10	0	0	0	0		
11:35:22	0:26:12	10	5.3	2.4	0:11:03	
12:10:14	0:34:52	20.5	5.6	2.5	0:14:00	
14:33:54	0	0				
14:41:45	0:07:51	1.5	0.8	0.4	0:22:04	0:22:04
15:20:54	0:39:09	9.7	4.4	1.9	0:20:08	
15:40:45	0:19:51	14.5	2.6	1.1	0:17:26	
16:02:07	0:21:22	20.5	3.2	1.4	0:15:01	
16:03:43	0	0	0			
16:14:50	0:11:07	2.5	1.3	0.6	0:18:45	
16:24:40	0:09:50	5	1.3	0.6	0:16:35	

<sup>1</sup> Sight tube is laboratory burett barrel calibrated in milliliters

<sup>2</sup> Conversion Factor: 1" = 1.87406 mls

<sup>3</sup> Hh = (Dr/Dh)<sup>2</sup>Hr, For a 6" diameter hole and a 4" diameter reservoir Hh = .4444Hr

**CONDOR EARTH TECHNOLOGIES, INC.**

21663 Brian Lane/PO Box 3905

Sonora, CA 95370

209.532.0361

[www.condorearth.com](http://www.condorearth.com)**PERCOLATION TEST DATA SHEET**Date of Test: 11/12/2019

Location: 1110 Kaufman Road, Oakdale Ca. 95360

Owner: OIDPerformed By: Corin MusickCertified By: David Belt

Test Pit 2

Diameter of Hole: 6 (6" - 8" Std.)Diameter of Reservoir: 4 (4" Std.)Water Depth in Hole 8 (8" Std.) Presoak Start (Date/Time) 11/11/2019 11:30 a.m. Dur. 24 (hrs.)

Hole No. P2 Depth 10 - 11 ft	Time Interval (minutes)	Reservoir Level (mls) <sup>1</sup>	Level Change in Reservoir (inches) <sup>2</sup>	Calculated Level Change in Hole (inches) <sup>3</sup>	Percolation Rate (min./inch)
Time					
11:28:25		0			
11:28:59	0:00:34	24	12.8	5.7	0:00:06
11:30:09		0			
11:30:47	0:00:38	24	12.8	5.7	0:00:07
13:20:03		0			
13:20:28	0:00:25	24	12.8	5.7	0:00:04

Notes: Loose sand, very fast percolation rates.

**CONDOR EARTH TECHNOLOGIES, INC.**

21663 Brian Lane/PO Box 3905

Sonora, CA 95370

209.532.0361

[www.condorearth.com](http://www.condorearth.com)**PERCOLATION TEST DATA SHEET**Date of Test: 11/12/2019

Location: 1110 Kaufman Road, Oakdale Ca. 95360

Owner: OIDPerformed By: Corin MusickCertified By: David Belt

Test Pit 3

Diameter of Hole: 6 (6" - 8" Std.)Diameter of Reservoir: 4 (4" Std.)Water Depth in Hole 8 (8" Std.) Presoak Start(Date/Time) 11/11/2019 12:00 p.m. Dur. 23.25 (hrs.)

Hole No. P3 Depth 10-11 ft	Time Interval (minutes)	Reservoir Level (mls) <sup>1</sup>	Level Change in Reservoir (inches) <sup>2</sup>	Calculated Level Change in Hole (inches) <sup>3</sup>	Percolation Rate (min./inch)
Time					
Pre-Soak water still full. Brought water level down to 0mls					
11:18:35		0			
11:39:04		0			
12:20:28		0			
Changed float, Added water, Water level dropped.					
13:55:28		6.25			
14:23:26	0:27:58	10	2.0	0.9	0:31:27
14:38:25	0:14:59	11.75	0.9	0.4	0:36:06
15:11:58	0:33:33	17.4	<- Test hole had re-flooded		

Notes: Slow rates, questionable data. Percolation equipment malfunctioned.



Soil Map—Eastern Stanislaus Area, California  
(Greger Facility)



Natural Resources  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey

12/24/2019  
Page 1 of 3

Soil Map—Eastern Stanislaus Area, California  
(Groger Facility)

### MAP LEGEND

<b>Area of Interest (AOI)</b>		Spoil Area
Area of Interest (AOI)		Stony Spot
<b>Soils</b>		Very Stony Spot
Soil Map Unit Polygons		Wet Spot
Soil Map Unit Lines		Other
Soil Map Unit Points		Special Line Features
<b>Special Point Features</b>		<b>Water Features</b>
Blowout		Streams and Canals
Borrow Pit		<b>Transportation</b>
Clay Spot		Rails
Closed Depression		Interstate Highways
Gravel Pit		US Routes
Gravelly Spot		Major Roads
Landfill		Local Roads
Lava Flow		<b>Background</b>
Marsh or swamp		Aerial Photography
Mine or Quarry		
Miscellaneous Water		
Perennial Water		
Rock Outcrop		
Saline Spot		
Sandy Spot		
Severely Eroded Spot		
Sinkhole		
Slide or Slip		
Sodic Spot		

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Eastern Stanislaus Area, California  
Survey Area Data: Version 13, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 18, 2015—Oct 6, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
MdA	Madera sandy loam, 0 to 2 percent slopes	2.5	23.8%
SnA	Snelling sandy loam, 0 to 3 percent slopes	7.9	76.2%
Totals for Area of Interest		10.4	100.0%

## Eastern Stanislaus Area, California

### MdA—Madera sandy loam, 0 to 2 percent slopes

#### Map Unit Setting

*National map unit symbol:* hjdz  
*Elevation:* 20 to 250 feet  
*Mean annual precipitation:* 14 inches  
*Mean annual air temperature:* 61 degrees F  
*Frost-free period:* 250 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Madera and similar soils:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Madera

##### Setting

*Landform:* Fan remnants  
*Landform position (two-dimensional):* Toeslope  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Alluvium derived from granite

##### Typical profile

*H1 - 0 to 9 inches:* sandy loam  
*H2 - 9 to 19 inches:* sandy loam  
*H3 - 19 to 30 inches:* clay  
*H4 - 30 to 36 inches:* indurated  
*H5 - 36 to 60 inches:* coarse sandy loam, clay loam

##### Properties and qualities

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* About 19 inches to abrupt textural change; 20 to 40 inches to duripan  
*Natural drainage class:* Moderately well drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low (0.00 to 0.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* Very low (about 2.3 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 4s  
*Land capability classification (nonirrigated):* 4s  
*Hydrologic Soil Group:* D

*Hydric soil rating:* No

#### **Minor Components**

##### **Alamo**

*Percent of map unit:* 10 percent

*Landform:* Depressions

*Hydric soil rating:* Yes

##### **Unnamed**

*Percent of map unit:* 5 percent

*Landform:* Depressions

*Hydric soil rating:* Yes

### **Data Source Information**

Soil Survey Area: Eastern Stanislaus Area, California

Survey Area Data: Version 13, Sep 16, 2019

## Eastern Stanislaus Area, California

### SnA—Snelling sandy loam, 0 to 3 percent slopes

#### Map Unit Setting

*National map unit symbol:* hjgy  
*Elevation:* 150 to 2,000 feet  
*Mean annual precipitation:* 12 to 20 inches  
*Mean annual air temperature:* 59 to 63 degrees F  
*Frost-free period:* 250 days  
*Farmland classification:* Prime farmland if irrigated

#### Map Unit Composition

*Snelling and similar soils:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Snelling

##### Setting

*Landform:* Fan remnants  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Riser  
*Down-slope shape:* Convex  
*Across-slope shape:* Concave  
*Parent material:* Alluvium derived from granite

##### Typical profile

*H1 - 0 to 19 inches:* sandy loam  
*H2 - 19 to 56 inches:* sandy clay loam  
*H3 - 56 to 60 inches:* sandy loam

##### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):*  
Moderately high (0.20 to 0.57 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* Moderate (about 9.0 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 2s  
*Land capability classification (nonirrigated):* 3c  
*Hydrologic Soil Group:* C  
*Hydric soil rating:* No

### **Minor Components**

#### **Montpellier**

*Percent of map unit:* 10 percent

*Hydric soil rating:* No

#### **Greenfield**

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

### **Data Source Information**

Soil Survey Area: Eastern Stanislaus Area, California

Survey Area Data: Version 13, Sep 16, 2019





**Appendix C**  
**Traffic Assessment prepared by**  
**KD Anderson & Associates, Inc., dated May 23, 2022**



**Appendix C**  
**Traffic Assessment prepared by**  
**KD Anderson & Associates, Inc., dated May 23, 2022**





May 23, 2022

Mr. Steve Knell  
**OAKDALE IRRIGATION DISTRICT**  
1205 E. F Street  
Oakdale, CA 95361

**RE: TRANSPORTATION IMPACT ASSESSMENT FOR OAKDALE IRRIGATION DISTRICT  
MAINTENANCE FACILITY, OAKDALE, CA (CITY APPLICATION 2021-17)**

Dear Mr. Knell:

Thank you for contacting our firm regarding the **OID Maintenance Facility at 1110 Kaufman Road** in Oakdale, CA. As we are aware, this project will occupy a 9.64 acre site south of Greger Street and would ultimately contain office and warehouse uses in buildings totaling 55,446 sf as well as stormwater retention and on-site parking for employees and OID equipment, as shown in Figure 1 (vicinity map) and Figure 2 (site plan). The project lies in Oakdale General Plan's South Yosemite Industrial Specific Plan, and the area west of the project site and south of Greger Street is occupied by a mini-storage facility, and a 62 lot residential subdivision was recently approved in the area north of Greger Street. Access to the project would occur at two new driveways on Greger Street and two driveways on Kaufman Road.

City of Oakdale staff has suggested that the transportation impacts of a project this size at this location are unlikely to be significant, but a focused transportation and traffic operational assessment has been requested addressing several key issues.

**Key Issues**

Our investigation considers these key issues:

- Identification and comparison of site land use and trip generation for the site as proposed and as assumed under the City of Oakdale GP and as assumed in the GPEIR.
- Opinion as to the relative effect of any change to vehicle trip generation caused by the project on the GPEIR's conclusions/recommendations or City traffic impact fee projects.
- Adequacy of project access to Greger Street and Kaufman Road.
- Relative effects of project traffic on the operation of the local, collector and arterial roadways providing access to the project.
- Relative effects of the project on regional VMT.

**Project Description.** The General Plan identifies the project site for Industrial (IND) use. The General Plan indicates that IND accommodates a broad range of limited, light, and heavy industrial uses including manufacturing and assembly, processing, warehousing and distribution, research and development, office and other job creating uses. Supporting commercial and other employee-serving uses are permitted. A building Floor Area Ratio (FAR) of 0.20 to 0.50 is permitted, and the GPEIR assumed a FAR of 0.30. As noted in Table 1, the project site could be developed with 205.7 thousand square feet (ksf) of industrial buildings under the GP's maximum Floor Area Ratio (FAR), and 122.8 ksf would result at the average FAR assumed in the GPEIR. In comparison, the proposed project would have an FAR of 0.14.

TABLE 1 SITE DEVELOPMENT COMPARISON			
Land Use	General Plan (IND)	GPEIR Assumptions (IND)	Proposed Project (LDR)
Floor Area Ratio	0.20 to 0.50	0.30	-
Density (du/acre) or Floor Area Ratio (FAR)	0.20 to 0.50	0.30	0.14
Project Area (gross acres)	9.4	9.4	9.4
Yield	205.7 ksf	122.8 ksf	55.446

### **Background Traffic Conditions**

**Setting.** The project would take its access via Greger Street and Kaufman Road, and its employees and vendors would reach the balance of the community via the Greger Street / S. Yosemite Avenue intersection to the east and the Greger Street / South Willowood Drive intersection to the west.

The General Plan indicates that Greger Street is an Urban Collector street and is designated a truck route in the area from Kaufman Road to Yosemite Avenue. Trucks are prohibited west of the project site. The posted speed limit is 30 mph. Class II bike lanes are provided on Greger Street starting at the west limits of the industrial area and continuing to Crane Road. Similarly, a Class I bike path begins on Greger Street at the west Industrial area boundary and extends north to the Sierra Northern RR right of way before turning west and also continuing to Crane Road. A roundabout at the western boundary slows traffic where bicycle facilities begin and also marks the overall community land use change from residential to industrial uses.

The General Plan identifies Kaufman Road as a 2-lane Collector Street. Today the road is generally a rural facility without curb gutter and sidewalk. The speed limit is posted at 45 mph. Kaufman Road along the project frontage to the Crane Lateral Canal is designated a truck route, but the area further south is not. The General Plan also identifies a Class I bike path on Kaufman Road.

**Background Traffic Conditions.** The GP DEIR provides information regarding current and future traffic conditions at various locations. The GP DEIR notes that in 2009 Greger Street carried 5,100 vehicles per day (VPD) and operated at LOS A in comparison to the capacity of 11,300 vehicles per day at LOS D for this two-lane collector street. Yosemite Avenue carried 19,700 vpd south of Greger Street and 22,400 vpd to the north, and these volumes were indicative of LOS F on the two lane segments of the street. While the GPEIR didn't provide daily traffic volume counts for Kaufman Road, based on the peak hour information that was presented the daily volume would be estimated at 750 VPD.

Conditions at intersections that had been widened to their ultimate width were better. The GP DEIR indicated that the roundabout at Greger Street / Willowood Drive operated at LOS A, the stop controlled Greger Street / Kaufman Road intersection operated at LOS B and signalized Yosemite Avenue / Greger Street intersection operated at LOS B during the a.m. and p.m. peak traffic hours.

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Because the effects of COVID-19 make new traffic counts a poor indicator of “normal” conditions, the extent to which traffic conditions have changed in this area since the GPEIR was prepared was determined from review of available aerial photography and consideration of other traffic studies. The traffic operational analysis accompanying the NCC EIR indicated that Yosemite Avenue south of Greger Street continued to carry 19,763 vpd in 2014. While industrial uses along Greger Street have not changed appreciably since 2007, the residential area west of S. Willowood Drive didn’t begin to be fully occupied until after the GPEIR was completed. Based on this information it is reasonable to expect that the current daily traffic volume on Greger Street and Kaufman Road are slightly higher than those reported by the GPEIR, but that current Level of Service would remain within the City’s minimum standard.

**Future Traffic Conditions.** The volume of traffic occurring in this area in the future was also suggested by the GPEIR. These estimates would include the project site with industrial uses. The daily traffic volume on Greger Street between S. Willowood Drive and Yosemite Avenue was expected to reach 5,900 to 7,900 vpd (GPEIR figure 4.5-16), while depending on what North County Corridor alignment was implemented, the volume on Yosemite Avenue was projected to reach 24,300 to 25,700 vpd north of Greger Street and 24,900 to 29,500 vpd to the south. While daily volumes are not shown for Kaufman Road, from peak hour data the estimate would be 4,500 to 6,700. Greger Street was expected to operate at LOS C, as would Kaufman Road if improved to a standard section, while Yosemite Avenue was expected to operate at LOS F. The GP DEIR indicated that the roundabout at Greger Street / S. Willowood Drive would operate at LOS B, the stop controlled Greger Street / Kaufman Road intersection would operate at LOS F and the signalized Yosemite Avenue / Greger Street intersection was projected to operate at LOS C during the a.m. and p.m. peak traffic hours. A traffic signal was recommended for the Greger Street / Kaufman Road intersection.

Conditions on the two-lane segments of S. Yosemite Avenue would not satisfy the City’s minimum LOS D standard, and development of the project site with industrial uses at average FAR is reflected in these forecasts.

As described earlier, facilities for alternative transportation modes exist in the area of the project. Sidewalks exist on Greger Street west of the project through the developed residential area. To the east sidewalk exists on the south side of Greger Street to S. Yosemite Avenue but is intermittent on the north side. Class 1 bike trails and Class 2 bike lanes exist west of the project, but while Class 2 bike lanes are planned on Greger Street east of the project these facilities have not been installed today. A Class 1 bike path is ideated in the General Plan for Kaufman Road.

**Site Access.** The project will be developed with access at two new intersections on Greger Street and two driveways on Kaufman Road. The most westerly driveway on Greger Street is about 150 feet from the mini-storage access and would be about 80 feet west of a planned access to the residential area to the north. This driveway would primarily provide access to the storage buildings on the west side of the site. The other driveway is about 250 feet west of Kaufman Road (centerline to centerline) and provides access to the office buildings’ parking areas.

The Kaufman Road driveways are about 360 and 490 feet south of Greger Street, respectively. The more northerly driveway is access to the office and the southerly is access to the stage facilities.

### Evaluation

**Trip Generation Comparison.** Table 2 indicates the number of daily and p.m. peak hour one-way vehicle trips that could be generated by development of the site under current assumptions in the GP and GPEIR and for the OID project as proposed.

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Under the assumptions made of the General Plan EIR, the site would have been expected to generate 598 daily trips (i.e., ½ inbound and ½ outbound), with 91 trips in the a.m. peak hour and 80 trips in the evening peak hour.

The trip generation rates applicable to the project have been selected based on the nature of the uses in each area of the project. The current Institute of Transportation Engineers publication *Trip Generation Manual, 11<sup>th</sup> Edition* is the source of the rates presented. For this analysis ITE code 110 Government Office Building was selected for the OID headquarters building, and the rates for Warehouse (code 150) were chosen for the balance of the site.

As indicated, the project as proposed would generate 491 daily trips, which is somewhat fewer total daily vehicle trips than would be caused by development under the assumptions of the GPEIR at the average IND density. The proposed project would also generate less trips during peak hours than the site would with the GP's current IND land use designation.

TABLE 2 SITE TRIP GENERATION COMPARISON									
Land Use	ITE Code	Unit / Quantity	Trip Generation Rates / Forecasts						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Industrial Development									
General Light Industrial	110	1 ksf	4.87	88%	12%	0.74	14%	86%	0.56
Forecasts @ max FAR		205.7	1.002	134	18	152	19	115	134
Forecast @ GPEIR FAR		122.8	598	80	11	91	11	69	80
Proposed OID Project									
Government Office Bldg	730	1 ksf	22.59	75%	25%	3.34	25%	75%	1.71
		19.0	429	47	16	63	8	24	32
Warehouse	150	1 ksf	1.71	77%	23%	0.17	28%	72%	0.18
		36.5	62	5	1	6	2	5	7
Project Total			491	52	17	70	10	29	39

**Effect of Project on GPEIR Conclusions.** Because the project is projected to generate fewer trips than would have been assumed for the site in the GPEIR, the project would have the effect of slightly reducing the GPEIR's traffic volume forecasts for Greger Street and Yosemite Avenue. Thus, the cumulative Levels of Service accompanying the project would be similar to or perhaps better than those presented in the GPEIR. Development of the project would not result in any change to mitigation measures identified in the GPEIR nor to improvements included in response to the GPEIR in the existing City of Oakdale traffic impact mitigation fee program.

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**Adequacy of Project Access.** On collector streets like Greger Street the adequacy of access is primarily based on the available sight distance and relationship between new intersections and adjoining the intersections or other roadway features. Because Greger Street is generally straight and level, the view to the east and west will be unobstructed from the project's access points.

The project's western driveway is offset from that of the approved residential use on the north side of Greger Street. While aligning the two would normally be desirable, because this warehouse use portion of the project generates relatively little traffic, in our opinion this change is not required.

**Effects of Project Trips on Existing Traffic Operations.** The project will add a relatively small amount of traffic to Greger Street and S. Yosemite Avenue. As would have been the case with GP Industrial uses, much of the site traffic will be commute trips to and from residences in Oakdale and in the balance of Stanislaus County. Truck traffic would be limited to Greger Street east of the site. Based on review of the regional population distribution and the available routes we expect project traffic to be split about 20% west via Greger Street toward Riverbank, 35% south on Kaufman Road towards Modesto and 45% north on Yosemite Avenue into Oakdale. This project could increase the daily volume on Greger Street by roughly 100 VPD ( $\frac{1}{2}$  inbound and  $\frac{1}{2}$  outbound) west of the site and 220 VPD east of Kaufman Road, with 170 VPD on Kaufman Road. This traffic increase would not be appreciable with regards to current volumes and the General Plan EIR's identified capacity for two collector streets (i.e., 11,300 vpd at LOS D).

Similarly, the project will increase the daily traffic volume on S. Yosemite Avenue, and the project will increase peak hour traffic through the S. Yosemite Avenue / Greger Street intersection and Greger Street / Kaufman Road intersections. However, the volume of traffic added would not be sufficient to alter the current Level of Service reported in the GPEIR, and the project's effect would not be considered significant within the context of General Plan policies.

**Vehicle Miles Traveled (VMT).** Under current CEQA guidelines the transportation impacts of a project are evaluated within the context of alternative transportation modes, safety and daily Vehicle Miles Traveled (VMT). VMT is generally the product of the project's estimated daily trips and the distance of those trips. Under SB 743 the switch was made from a LOS based analysis to VMT evaluation in order to combat global climate change and reduce Greenhouse gases, and agencies are to evaluate VMT impacts within the context of the effect on the ability of the agency to meet its VMT reduction objectives. However, neither the City of Oakdale nor Stanislaus County have adopted specific VMT guidelines or significance criteria.

In this case, the proposed project is expected to generate fewer daily trips than would development under the current IND land use designation. In addition, the project is located near the Oakdale's southern residential areas and in proximity to bike lanes and trails that will allow employees to choose that travel mode or to walk. As a result, the project will help the City meet long term goals for reducing VMT.

### Conclusions

- The proposed project includes 19.0 ksf office building and 36.5 ksf of warehousing which could replace 122.8 ksf of industrial space under the assumptions made in the GPEIR.

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- Based on standard trip generation rates published by the Institute of Transportation Engineers (ITE) the 62 dwelling units would result in 491 daily trips, which is 18% less than the 598 daily trips assumed for the site in the GPEIR. The project would generate 70 a.m. and 39 p.m. peak hour trips, which is 23% of the 91 a.m. and 51% less than the 80 p.m. peak hour trips generated by industrial development assumed for the site.
- The project would not change the GPEIR's conclusions regarding future traffic conditions or mitigation, nor will the project alter the nature of improvements already included in the City's traffic impacts fee program.
- The design of project access to Greger Street is adequate, and the project will install frontage improvements along Kaufman Road that are consistent with standard City requirements
- The project will increase the volume of traffic currently occurring on the streets providing access to the site. However, the increases on Greger Street, Kaufman Road and S. Yosemite Avenue would be too small to cause an appreciable effect on the Level of Service on those roadways, and the peak hour volume added at the S. Yosemite Avenue / Greger Street, Greger Street / Kaufman Road and Greger Street / S. Willowood Drive intersections would be too small to affect the Level of Service at that location.
- Because the project will generate less traffic than would occur under the General Plan's IND designation and the project is located near Oakdale southern residential district and near existing bicycle trails and bike lanes, the project should not interfere with the City of Oakdale's ability to meet long term VMT reduction goals.

Please feel free to contact me if you have any questions.

Sincerely,

**KD Anderson & Associates, Inc.**



Kenneth D. Anderson, P.E.  
President

Attachments



VICINITY MAP



