

Public Review Draft Initial Study/Mitigated Negative Declaration

**Meadowlands Subdivision: General Plan Amendment, Rezone, and
Vesting Tentative Subdivision Map No. 2021-04**

prepared by

City of Oakdale

Public Services Department

455 S. Fifth Avenue

Oakdale, CA 95361

prepared with the assistance of

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139 S. Stockton Avenue

Ripon, California 95366



June 2021

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Appendix A – Air Impact Assessment Approval, dated June 8, 2021

Appendix B – Geotechnical Engineering Investigation, dated March 9, 2021

Appendix C – Traffic Impact Assessment, dated April 6, 2021

NEGATIVE DECLARATION

Lead Agency:

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

PROJECT NAME:

Meadowlands Subdivision: General Plan Amendment, Rezone, and Vesting Tentative Subdivision Map No. 2021-04

PROJECT PROPONENT AND LEAD AGENCY:

Project Proponent: Windward Pacific Builders
 135 S. Fifth Avenue, Suite J
 Oakdale, CA 95361

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

PROJECT LOCATION:

The Proposed Project is located on Greger Street, between the existing Sequoia Gate residential development and property owned by the City of Oakdale. Specifically, the Assessor Parcel Number for the Project site is 063-024-017. Figures 1 and 2 provide illustrations of the Project site's Regional Location and Location Map.

PROJECT DESCRIPTION:

The Applicant is proposing a General Plan Amendment, Rezone, and Vesting Tentative Subdivision Map to allow for the development of sixty-two (62) single-family residential lots and a 36,615 square foot storm drain basin (Lot A) on 13.2-acres located on Greger Street, immediately east of the Bridle Ridge Specific Plan area.

Access to the Proposed Project will be provided via two (2) driveways from Greger Street. The westerly driveway located near the existing round-a-bout on Greger Street will be restricted to right-in/right-out use only.

Domestic water and sewer services will be provided via connecting to existing lines located in Greger Street. Storm drainage will be provided via installation of a storm drain basin with three (3) dry wells to capture stormwater.

The typical local residential roadway section within the Proposed Project consists of fifty (50) right-of-way with two (2) travel lanes, vertical curb and gutter, and a five (5) foot sidewalk. Access to the existing Bridle Ridge Non-Vehicular Trail is proposed to be provided through Lot A.

Perimeter wall improvements shall consist of an eight (8) foot masonry wall on the eastern and a six (6) foot masonry wall on the northern perimeter. The western perimeter currently contains an existing masonry wall between the Project site and the existing Sequoia Gate residential project.

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 MEASURES:

Mitigation Measure 13-1:

In accordance with General Plan Policy N-1.5, and prior to the issuance of a Building Permit, the Project Proponent shall prepare a Technical Noise Analysis to determine the type and scope of architectural techniques (i.e. window placement and design) for Lots 19, 20, 28, 29, and 30 to achieve General Plan Noise Level Standards for interior noise levels.

Mitigation Measure 13-2:

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”

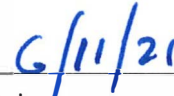
that would be responsible for responding to any local complaints (e.g., starting too early, bad muffler, etc.) and shall institute reasonable measures to correct the problem. The construction contractor shall conspicuously post a telephone number for the liaison at the construction site.

- 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.



Mr. Mark Niskanen, City Planner



Date

INITIAL STUDY

1. PROJECT TITLE

Meadowlands Subdivision: General Plan Amendment, Rezone, and Vesting Tentative Subdivision Map No. 2021-04

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
Phone: 209-599-8377

4. PROJECT LOCATION

The Proposed Project is located on Greger Street, between the existing Sequoia Gate residential development and property owned by the City of Oakdale. Specifically, the Assessor Parcel Number for the Project site is 063-024-017. Figures 1 provides an illustrations of the Proposed Project's location.

5. PROJECT SPONSOR'S NAME AND ADDRESS

Windward Pacific Builders
135 S. Fifth Avenue, Suite J
Oakdale, CA 95361

6. EXISTING SETTING

The Proposed Project site consists of raw fallow ground located between existing residential, industrial, and municipal development (City domestic water infrastructure site). The topography of the Project site is such that there are grade differentials in the middle of the site, and in relation to the parcel located immediately east. Figure 2, 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.

Figures 3 and 4 illustrate the existing and proposed 2030 General Plan Land Use Designation for the Project site.

8. EXISTING ZONING

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

Figures 5 and 6 illustrate the existing and proposed zoning of the Project site.

9. SURROUNDING LAND USES AND SETTING

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

Table 1 – Surrounding Land Uses and Setting

	Existing Use	General Plan Land Use Designation	Zoning Classification
North	Sierra Northern Railroad and existing single-family residential development	Low Density Residential (LDR)	R-1, Single-Family Residential
South	Greger Street and an existing storage facility	Industrial (IND)	L-M, Limited Industrial
East	Industrial and Municipal uses	IND	L-M
West	Residential (Sequoia Gate development)	High Density Residential (HDR)	High Density PD - HDR-PD and Residential 15,000sf Minimum SPR-A (Bridle Ridge Specific Plan)

10. DESCRIPTION OF THE PROJECT

The Applicant is proposing a General Plan Amendment, Rezone, and Vesting Tentative Subdivision Map to allow for the development of sixty-two (62) single-family residential lots and a 36,615 square foot storm drain basin (Lot A) on 13.2-acres located on Greger Street, immediately east of the Bridle Ridge Specific Plan area.

Access to the Proposed Project will be provided via two (2) driveways from Greger Street. The westerly driveway located near the existing round-a-bout on Greger Street will be restricted to right-in/right-out use only.

Domestic water and sewer services will be provided via connecting to existing lines located in Greger Street. Storm drainage will be provided via installation of a storm drain basin with three (3) dry wells to capture stormwater.

The typical local residential roadway section within the Proposed Project consists of fifty (50) right-of-way with two (2) travel lanes, vertical curb and gutter, and a five (5) foot sidewalk. Access to the existing Bridle Ridge Non-Vehicular Trail is proposed to be provided through Lot A.

Perimeter wall improvements shall consist of an eight (8) foot masonry wall on the eastern and a six (6) foot masonry wall on the northern perimeter. The western perimeter currently contains an existing masonry wall between the Project site and the existing Sequoia Gate residential project.

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 May 11, 2021:

- Buena Vista Rancheria of Me-Wuk Indians;
- California Valley Miwok Tribe;
- Lone Band of Miwok Indians;
- North Valley Yokuts Tribe;
- The Confederated Villages of Lisian;
- United Auburn Indian Community of the Auburn Rancheria; and,
- Wilton Rancheria.

Figure 1 – Project Location Map



Figure 2 – Site Photos



Figure 2, Continued



Figure 3 – Existing General Plan Land Use Designation

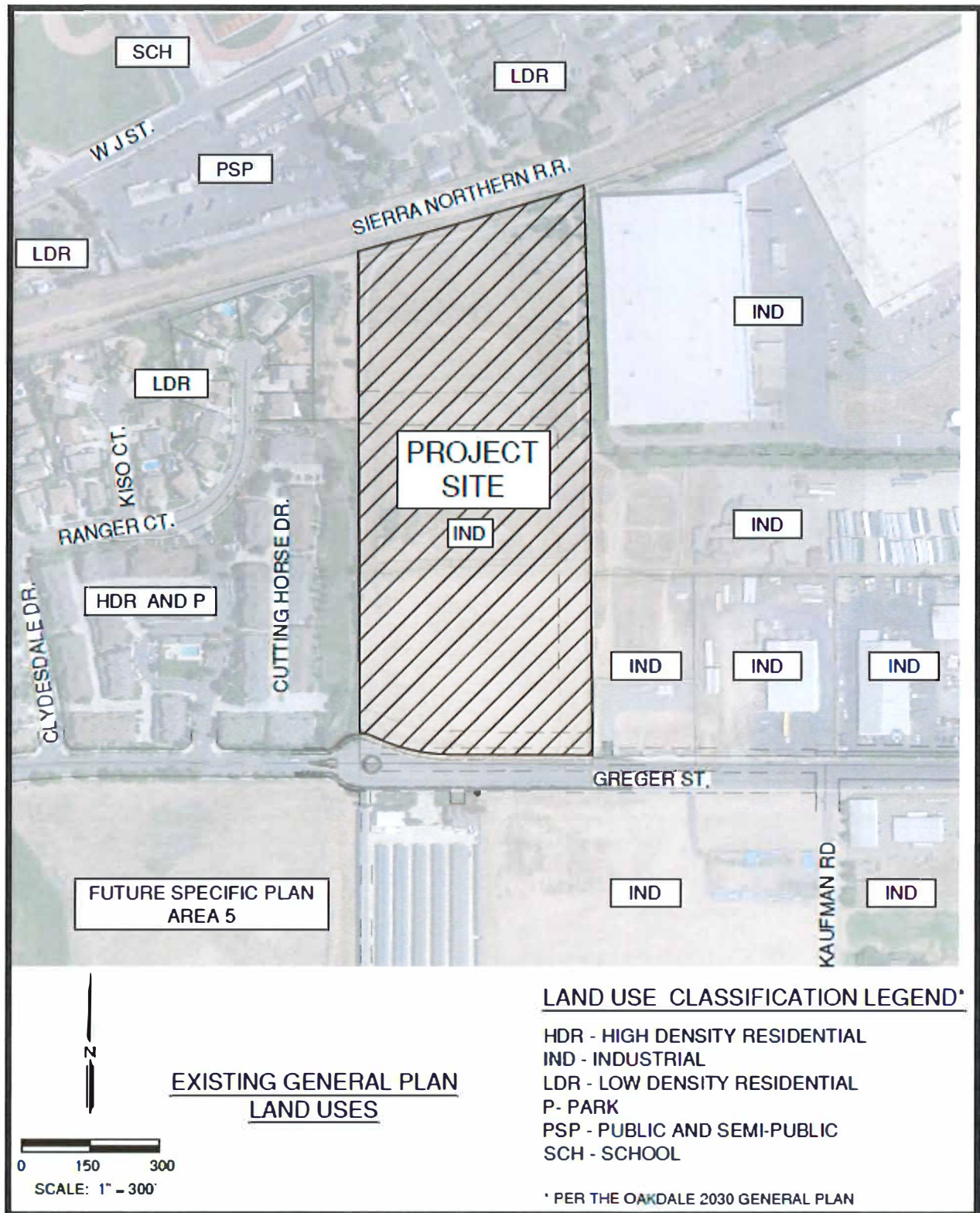


Figure 4 – Proposed General Plan Land Use Designation

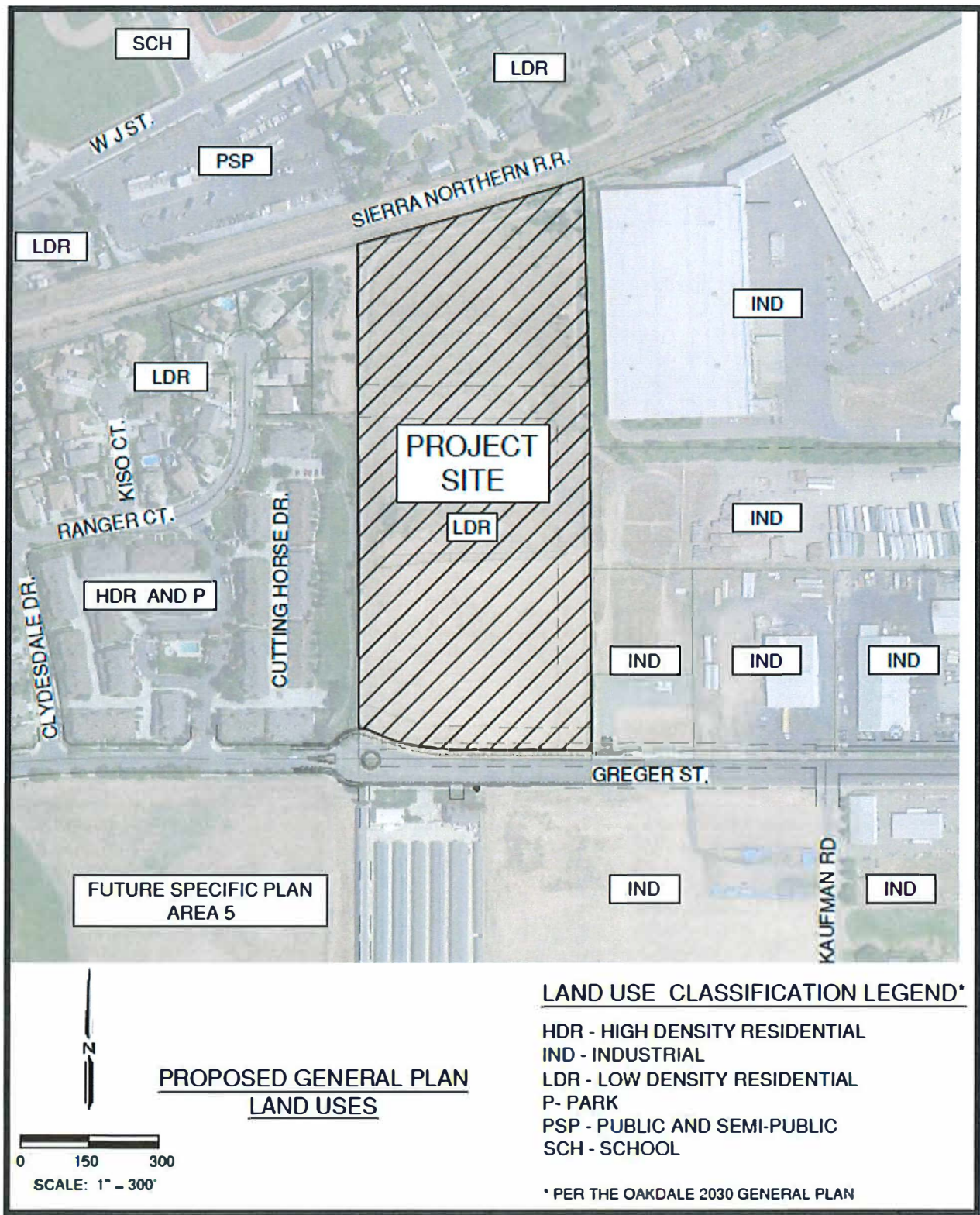


Figure 5 – Existing Zoning

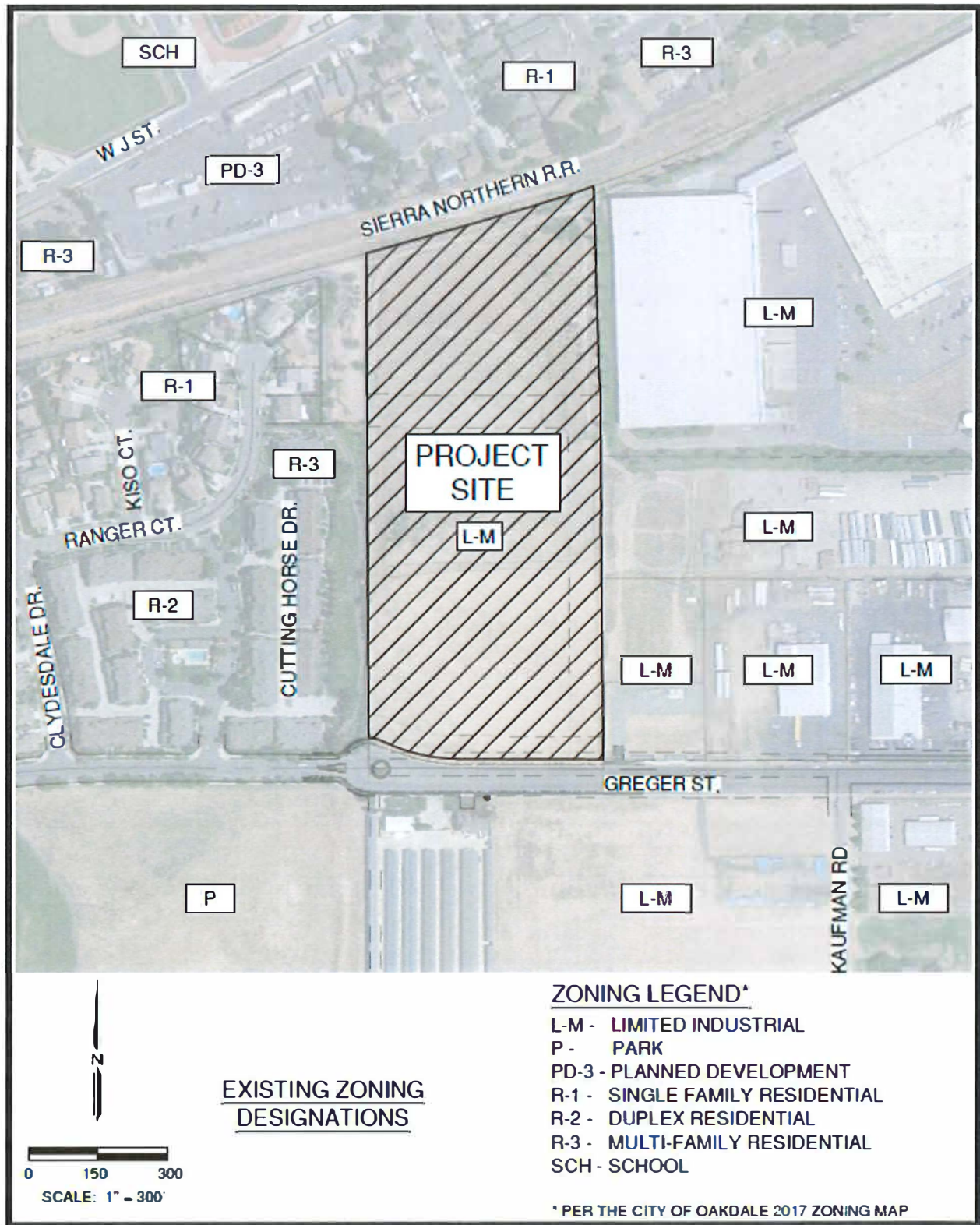


Figure 6 – Proposed Zoning

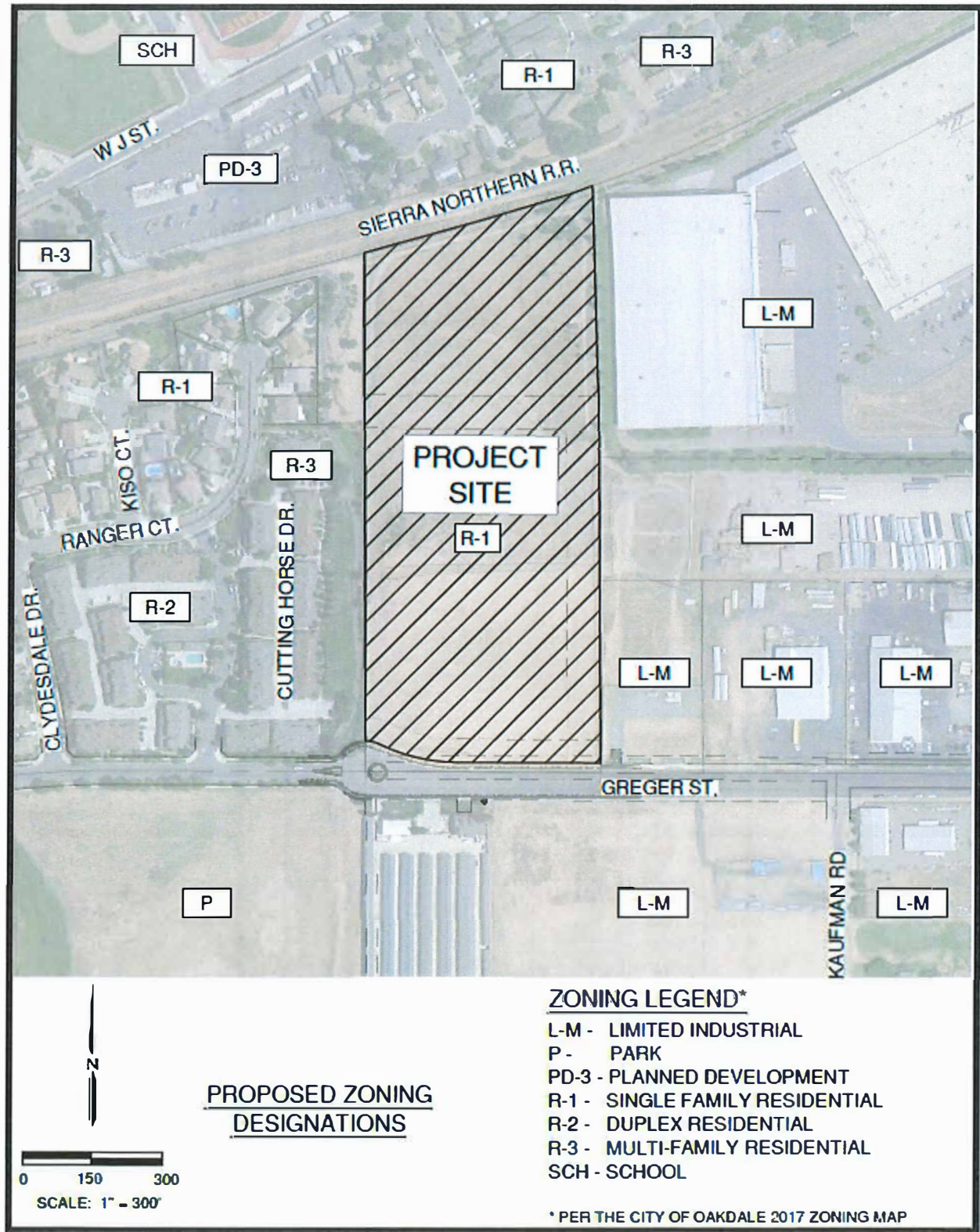
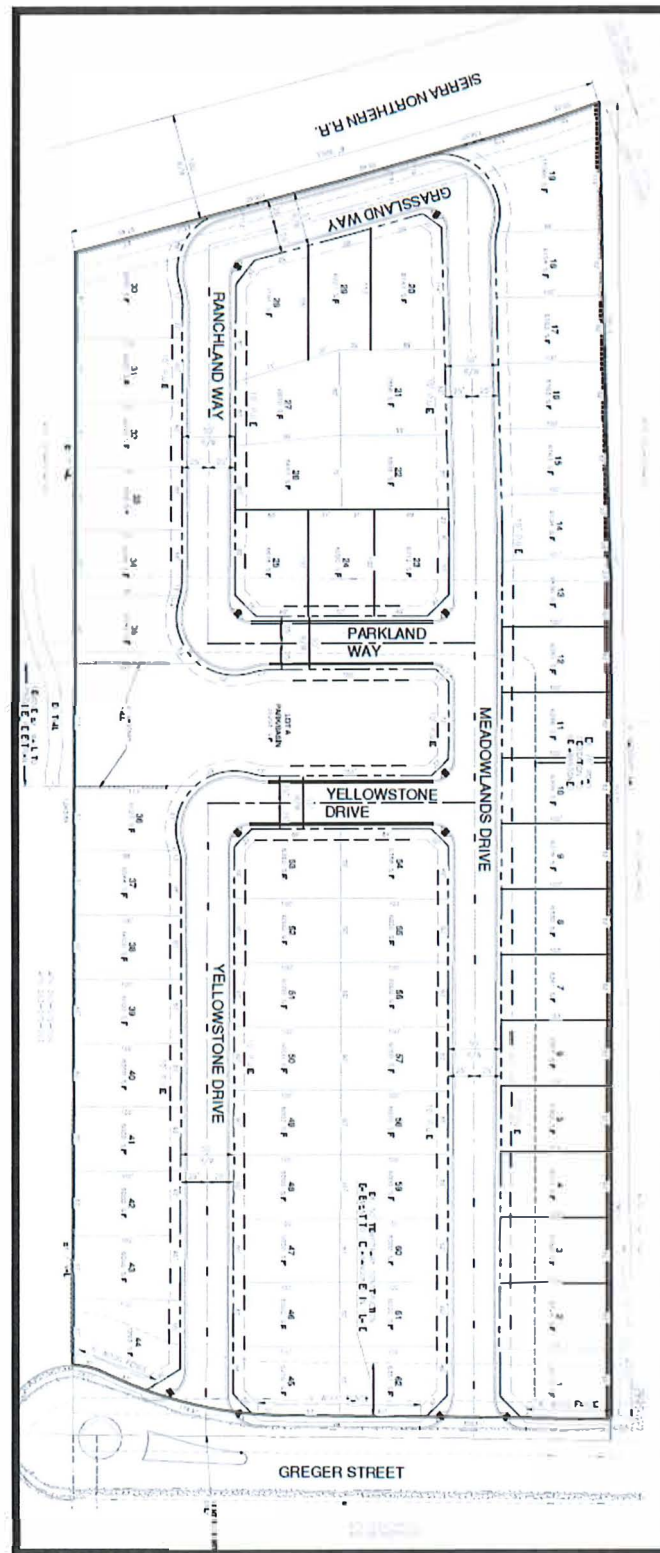


Figure 7 – Vesting Tentative Subdivision Map




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	<u>6/11/21</u> 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.

- 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 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. The Proposed Project proposes to rezone the Project site to R-1, Single Family Residential. All development standards, including those applicable to scenic quality, will be adhered to by the Proposed Project. 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 single-family residential development, including street lighting and typical residential lighting. 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 *Single-Family Residential Design Expectations* ("Expectations") require street lighting to be decorative, and minimal in height when compared to standard cobra head street lighting. Page 17 of the Expectations require intermediate and low-level lighting in new residential subdivisions, which assist in reducing light and glare impacts. 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) and (b):

- a. *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?*

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

- b. 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, residential uses to the north and west, industrial uses to the east, and Greger Street and an existing commercial indoor storage facility to the south. The Project site is fallow ground and is not actively farmed.

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 use 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 the public health; secondary standards are established to protect the 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 (PM10 and PM2.5), 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 ^a	State Standards ^b
Ozone, 1-hour	No Federal standard ^f	Nonattainment / Severe
Ozone, 8-hour	Nonattainment / Extreme ^e	Nonattainment
PM10	Attainment ^c	Nonattainment
PM2.5	Nonattainment ^d	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

^aSee 40 CFR Part 81

^bSee CCR Title 17 Sections 60200-60210

^cOn September 25, 2008, EPA redesignated the San Joaquin Valley to Attainment for the PM10 National AAQS and approved the PM10 Maintenance Plan

^dThe 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).

^eThough 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).

^fEffective 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 _x	10	10	10
ROG	10	10	10
SO _x	27	27	27
PM ₁₀	15	15	15
PM _{2.5}	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 1 of the GAMAQI, dated November 13, 2020 includes the threshold for single-family residential projects as resulting in less than 155 dwelling units and less than 800 Average Daily One-Way Trips for all fleet types (except Heavy-Heavy Duty Trucks (HHDT)).

In accordance with Table 1 of the GAMAQI, the Proposed Project is considered to be a SPAL, as it would not cross the SJVAPCD adopted threshold of 155 dwelling units and not exceed 800 daily trips, as indicated in the Traffic Impact Assessment, dated April 6, 2021, prepared by KD Anderson & Associates, Inc (585 daily trips). Because the Proposed Project qualifies as SPAL, 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/home construction processes. Operational emissions would be generated primarily by resident 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 (sixty-two (62) lots), 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.

As described in the GAMAQI and in the Small Project Analysis Level, if a Proposed Project is below a threshold of 155 single-family residential units and less than 800 Average Daily One-Way Trips for all fleet types (except Heavy-Heavy Duty Trucks (HHDT)), the Proposed Project's operational 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. Estimated emissions associated with the demolition of the existing single-family residence and accessory structure are included in the demolition phase of the project. 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 C.

Table 3-1 Construction Emissions (Unmitigated)

Pollutant/Precursor	Construction Emissions (tpy)	SJVAPCD Significance Threshold (tpy)	Significant Impact?
CO	2.42	100	No
NOx	2.55	10	No
ROG	5.48	10	No
SOx	4.5100e-003	27	No
PM10	0.37	15	No
PM2.5	0.23	15	No
See Appendix C 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 “single-family” is 155 units and less than 800 Average Daily One-Way Trips for all fleet types (except Heavy-Heavy Duty Trucks (HHDT)). 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	2.55	100	No
NOx	1.66	10	No
ROG	2.99	10	No
SOx	0.01	27	No
PM10	0.67	15	No
PM2.5	0.19	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 8, 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 General Plan Amendment, Rezone, and Vesting Tentative Subdivision Map to allow for the development of sixty-two (62) single-family residential lots and a 36,615 sq. ft. storm drain basin (Lot A). 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

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

- 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?*

- 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 is “cropland.” Based on a review of the 2030 General Plan EIR, cropland is 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 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 residential buildings.

The anticipated construction schedule assumes that the Proposed Project will be built over a two (2) – three (3) year period. The Proposed Project will require the site preparation, grading, paving, architectural coating, and trenching. The site is vacant and will not require the demolition of any existing structures. 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?*
- b. Would the project result in substantial soil erosion or the loss of topsoil?*

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, respectfully. 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 Project Proponent has prepared a Geotechnical Engineering Investigation, dated March 9, 2021, prepared by Krazan & Associates, Inc. (included herein as Appendix B). The Geotechnical Engineering Investigation determined that there were no active fault traces within the Proposed Project's vicinity, and the site is not located within an Earthquake Fault Zone. Secondary hazards from earthquakes including rupture, seiche, landslides, liquefaction, and subsidence are low as the groundshaking intensities within the Proposed Project's vicinity are not strong enough to generate these types of failures.

Based on the analysis contained in above and in Appendix B, the 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?*

Refer to the analysis above for a(i through iv) and b.

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

Based on a review of the Proposed Project's Geotechnical Engineering Investigation, the Proposed Project is not located on soil defined as expansive in Table 1-B of the Uniform Building Code. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

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 City services related to sewer. 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:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
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 (CO₂e), 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

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 ₂ e)
E.1.2	Comply with State-mandated Building Energy Efficiency Requirements for Residential Development and Expedite Permitting for Developers	1,468
E.2.1	Promote small scale On-site Renewable Energy for Homes	2,942
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
Total Annual Reduction		5,923

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 CO₂e. 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?

The Proposed Project consists of the development of sixty-two (62) single-family residential units and associated site improvements typical of a residential subdivision. These types of projects do not typically result in creating significant hazards to the public or environment through upset and accident conditions involving the release of hazardous materials. Nor do they result in the use, transport, or disposal of hazardous materials.

However, 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 500-feet north of the Project site. However, the development of single-family residential uses does not typically include the emissions or handling of hazardous materials or waste. Any such use 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 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.

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 4.98± 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 residential 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. Therefore, any potential impacts as a result of this project are mitigated through the General Plan Policies and Regional Water Board requirements and the project would have a **Less Than Significant Impact**.

- 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 gpm¹ 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. The Proposed Project includes an 8" water line that will be constructed along the "Private Street" from the existing water line at River Avenue.

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

¹ 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 sieches, 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 is not required for this topic.

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 continues the extension of residential uses from the west to the east. 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 non-conformance with the 2030 General Plan and Zoning Ordinance. However, the Proposed Project proposes to amend the 2030 General Plan land use designation from IND to Low Density Residential (LDR) land uses, and to amend the Zoning Ordinance to allow for the Project site to be zoned for R-1, Single-Family Residential uses. As proposed, the Proposed Project would comply with the Development Standards set forth in the Zoning Ordinance for R-1 uses.

Based on a review of the 2030 General Plan, the intent of the IND land use designation was to serve as a buffer between neighboring residential land uses to the west, as easterly land uses continue the IND land use designation. The Proposed Project serves to extend this land use buffer. It is also important to note that while the easterly parcel is designated for IND land uses, it is a parcel owned by the City of Oakdale and has been partially developed with improvements necessary for the City's domestic water capital infrastructure. Beyond serving as a buffer between existing residential uses and planned IND land uses, the 2030 General Plan does not clarify if the IND land use designation of the Project site was designated for the purpose of mitigating an environmental effect. Therefore, because the Proposed Project partially extends the land use buffer between existing residential uses and existing and planned IND land uses, the impact is **Less Than Significant**.

MITIGATION MEASURES:

Mitigation is not required for this topic.

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?			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 is bordered to the north by Sierra Northern Railroad to the north. Railroads are a source of noise for sensitive uses, including residential uses.

The City's 2030 General Plan provides the adopted noise level standards for train noise exposure levels. According to Table N-3 of the 2030 General Plan, noise levels from train noise exposure is as follows:

Railroad Line	Ldn at 50-Feet	
	Existing	Future
UPRR (north of Greger Street)	46	46

The City's 2030 General Plan Noise Element further adopted the City's maximum allowable environmental noise standards for transportation sources, including railroad. For single-family residential uses, the exterior noise level standard is 60 Ldn/CNEL, db and the interior noise level standard is 45 Ldn/CNEL, db. Noise generated by the railroad line is higher than what is permitted by the City's General Plan. The Project Proponent will be installing a six (6) foot decorative masonry

wall along the Project site's northern perimeter, which will assist in reducing railroad noise impacts. In addition, the topography of the Project site is such that the railroad line is located lower in elevation than the Project site. However, given noise levels from the railroad are above the interior noise level standards of the 2030 General Plan, the Proposed Project will have a **Less Than Significant Impact with Mitigation Incorporated**. Mitigation Measure 13-1 has been incorporated into the Proposed Project, of which is defined below.

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 NOISE-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 13-2, 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 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:

In accordance with General Plan Policy N-1.5, and prior to the issuance of a Building Permit, the Project Proponent shall prepare a Technical Noise Analysis to determine the type and scope of architectural techniques (i.e. window placement and design) for Lots 19, 20, 28, 29, and 30 to achieve General Plan Noise Level Standards for interior noise levels.

Mitigation Measure 13-2:

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:*

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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 subdividing land to develop sixty-two (62) single-family residential dwelling units. Based on housing statistics from the California Department of Finance (<https://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/>), the persons per household in the City of Oakdale in 2020 was 2.90. As such, the Proposed Project is anticipated to create an additional 180 residents. In 2020, the population of the City of Oakdale was 22,997 residents. The Proposed Project would create an additional 0.0078 percent to the City's population. This percentage increase does not create or induce substantial population growth. Therefore, the Proposed Project will have a **Less Than Significant 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 a **Less Than Significant 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 per 1,000 population, 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.

With regard to K-12 schools, the Project Applicant is required to pay the standard fees for the Oakdale Joint Unified School District prior to Building Permit issuance. The current School Impact Fee for the Oakdale Joint Unified School District is \$3.48 per square foot. The Proposed Project will be required to pay the applicable Capital Facilities Fees (CFF) associated with the services and facilities in addition to School Impact Fees imposed by the Oakdale Unified School District. Therefore, the Proposed Project will have a **Less Than Significant Impact**.

For a discussion of the Proposed Project's impact on park facilities, refer to Section 16.

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):

- 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?*
- 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 will provide a direct connection to the existing Bridle Ridge Bicycle/Pedestrian Trail, located immediately east of the Project site. This linkage provides a connection to existing parks and recreational facilities located within the Bridle Ridge Specific Plan area. This is considered an increase in the use of existing parks and recreational facilities. However, as noted previously, the Proposed Project is anticipated to add 180 residents in this area of the City of Oakdale. The increase of 180 residents is not considered to be substantial given the City's overall population, as well as the number of residential units within the Bridle Ridge Specific Plan area, of which the existing parks currently serve.

The Proposed Project also includes a 36,615 park/storm drain basin lot, which will provide recreational amenities to the Proposed Project. The location of this park/storm drain basin lot is provided in Figure 16-1, Conceptual Landscape Plan. The proposed park is intended to provide recreational opportunities to the subdivision's anticipated 180 residents and is also intended to accommodate the Proposed Project's stormwater requirements. The proposed park site, similar to the overall Proposed Project, is located on fallow undeveloped land and is not anticipated to have an adverse physical effect on the environment.

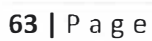
The Proposed Project will also be required to pay the applicable Capital Facilities Fees, which include park facilities. This payment of the CFF fees helps offset the impact of the Proposed Project to the City's capital infrastructure, including parks.

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

MITIGATION MEASURES:

Mitigation is not required for this topic.

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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 prepared a Traffic Impact Assessment, dated April 6, 2021, 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) while the proposed General Plan land use designation is Low Density Residential (LDR). The traffic volumes anticipated for each land use is depicted below in Table 17-1.

Table 17-1 – Site Trip Generation Comparison

Land Use	General Plan	General Plan EIR Assumptions	Proposed Project
Industrial (IND)	275.5 KSF	172.5 KSF	-
Daily Trips @ 4.96/ksf	1,367	870	
Daily Truck Trips @ 0.25/ksf	69	43	
PM Peak Hour Trips @ 0.70/ksf	193	120	
Dwelling Units (du)	-	-	62
Daily Trips @ 9.44/du			585
PM Peak Hour Trips @ 0.99/du			62

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 300 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 LOS for the intersection of Yosemite Avenue/Greger Street would be unaffected by the Proposed Project.

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 land use designation. This is confirmed in Table 17-1. In addition, the Proposed Project is located near the center of the City of Oakdale 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 not interfere with the City's ability to meet long term VMT reduction goals.

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 design 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. The easterly driveway access is planned as full access, while the westerly driveway access will be restricted to right-in/right-out access only. Based on discussions with the City's Building Official, the Proposed Project provides two (2) points of access 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 May 11, 2021. No response 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:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
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).² 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 21,948 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).

² 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 --

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
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).
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. San Joaquin Valley Air Pollution Control District (SJVAPCD), Ambient Air Quality Standards & Valley Attainment Status, assessed May 14, 2021 (<https://www.valleyair.org/aqinfo/attainment.htm>).
15. The California Emissions Estimator Model (CalEEMod), Version 2016.3.2, assessed and air quality assessment conducted on May 14, 2021.
16. Geotechnical Engineering Investigation, dated March 9, 2021, prepared by Krazan & Associates, Inc.
17. Traffic Impact Assessment, dated April 6, 2021, prepared by K.D. Anderson & Associates, Inc.

Appendix A
Air Impact Assessment Approval, dated June 8, 2021



June 8, 2021

Planning Department
City Of Oakdale
455 South Fifth Avenue
Oakdale, CA 95361

Re: Air Impact Assessment (AIA) Application Approval
ISR Project Number: C-20210208
Land Use Agency: City of Oakdale
Land Use Agency ID Number: Unknown

To Whom It May Concern:

The San Joaquin Valley Air Pollution Control District (District) has approved the Air Impact Assessment (AIA) application for the the Meadowlands project, located at Greger Street in Oakdale, California. The District has determined that the mitigated baseline emissions for construction and operation will be less than two tons NOx per year and two tons PM10 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.

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
- A copy of the Air Impact Assessment Application

Certain emission mitigation measures proposed by the applicant may be subject to approval or enforcement by the City of Oakdale. No provision of District Rule 9510 requires action on the part of the City of Oakdale, however, please review the enclosed list of mitigation measures and notify the District if the proposed mitigation measures are inconsistent with your agency's requirements for this project. The District can provide the detailed emissions analysis upon request.

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)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: (661) 392-5500 FAX: (661) 392-5585

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If you have any questions, please contact Mr. Patrick C Chimienti by telephone at (559) 230-6139 or by email at Patrick.Chimienti.

Sincerely,

Brian Clements
Director of Permit Services

A handwritten signature in blue ink, appearing to read "John Stagnaro", with a large, stylized flourish at the end.

For: John Stagnaro
Program Manager

BC: pc

Enclosures

Indirect Source Review Complete Project Summary Sheet & Monitoring and Reporting Schedule

Project Name:	THE MEADOWLANDS
Applicant Name:	LUCKY 7 LAND AND CATTLE, INC
Project Location:	GREGER STREET
	APN(s): 063-024-017
Project Description:	LAND USE: Residential - 62 Dwelling Unit - Single Family Housing Residential - 62 Dwelling Unit - Single Family Housing Residential - 62 Dwelling Unit - Single Family Housing ACREAGE: 13.4
ISR Project ID Number:	C-20210208
Applicant ID Number:	C-303477
Permitting Public Agency:	CITY OF OAKDALE
Public Agency Permit No.	UNKNOWN

Existing Emission Reduction Measures

Enforcing Agency	Measure	Quantification	Notes
There are no Existing Measures for this project.			

Non-District Enforced Emission Reduction Measures

Enforcing Agency	Measure	Specific Implementation	Source Of Requirements
CITY OF OAKDALE	Improve Destination Accessibility	2 miles (distance to downtown or job center)	
CITY OF OAKDALE	Improve Pedestrian Network	Within Project Site and Connecting Off-Site	
CITY OF OAKDALE	Install Solar Panel	Install solar panels with a total power output of 198 kW	

Number of Non-District Enforced Measures: 3

District Enforced Emission Reduction Measures

Enforcing Agency	Measure	Specific Implementation	Measure For Compliance	District Review
SJVAPCD	Construction and Operation - Recordkeeping	For each project phase, all records shall be maintained on site during construction and for a period of ten years following either the end of construction or the issuance of the first certificate of occupancy, whichever is later. Records shall be made available for District inspection upon request.	(Compliance Dept. Review)	Ongoing

Indirect Source Review Complete Project Summary Sheet & Monitoring and Reporting Schedule

6/8/21

7:31 am

(District Enforced Emission Reduction Measures Continued)

Enforcing Agency	Measure	Specific Implementation	Measure For Compliance	District Review
SJVAPCD	Construction and Operational Dates	For each project phase, maintain records of (1) the construction start and end dates and (2) the date of issuance of the first certificate of occupancy, if applicable.	(Compliance Dept. Review)	Ongoing
SJVAPCD	Construction and Operation - Exempt from Off-site Fee	For each project phase, within 30-days of issuance of the first certificate of occupancy, if applicable, submit to the District a summary report of the construction start, and end dates, and the date of issuance of the first certificate of occupancy. Otherwise, submit to the District a summary report of the construction start and end dates within 30-days of the end of each phase of construction.	(Compliance Dept. Review)	Ongoing

Number of District Enforced Measures: 3

Emissions Estimator Worksheet

6/8/2021

Applicant/Business Name:	Lucky 7 Land and Cattle, Inc
Project Name:	The Meadowslands
Project Location:	Gregor Street
District Project ID No.:	20210208

Project Construction Emissions												
If applicant selected Construction Clean Fleet Mitigation Measure - Please select "Yes" from dropdown menu												No
		NOx						PM10				
Project Phase Name	ISR Phase	Construction Start Date	Unmitigated Baseline ⁽¹⁾ (TPY)	Mitigated Baseline ⁽²⁾ (TPY)	Achieved On-site Reductions ⁽³⁾ (tons)	Required Off-site Reductions ⁽⁴⁾ (tons)	Emission Reductions Required by Rule ⁽⁵⁾	Unmitigated Baseline ⁽¹⁾ (TPY)	Mitigated Baseline ⁽²⁾ (TPY)	Achieved On-site Reductions ⁽³⁾ (tons)	Required Off-site Reductions ⁽⁴⁾ (tons)	Emission Reductions Required by Rule ⁽⁵⁾
Phase 1 - 62 DU	1	12/1/2021	0.2525	0.2525	0.0000	0.0505	0.0505	0.0131	0.0131	0.0000	0.0059	0.0059
Phase 1 - 62 DU	2	1/1/2022	0.7793	0.7793	0.0000	0.1559	0.1559	0.0404	0.0404	0.0000	0.0182	0.0182
	3				0.0000	0.0000	0.0000			0.0000	0.0000	0.0000
	4				0.0000	0.0000	0.0000			0.0000	0.0000	0.0000
	5				0.0000	0.0000	0.0000			0.0000	0.0000	0.0000
	6				0.0000	0.0000	0.0000			0.0000	0.0000	0.0000
	7				0.0000	0.0000	0.0000			0.0000	0.0000	0.0000
	8				0.0000	0.0000	0.0000			0.0000	0.0000	0.0000
	9				0.0000	0.0000	0.0000			0.0000	0.0000	0.0000
	10				0.0000	0.0000	0.0000			0.0000	0.0000	0.0000
		Total	1.0318	1.0318	0.0000	0.2064	0.2064	0.0535	0.0535	0.0000	0.0241	0.0241

Total Achieved On-Site Reductions (tons)		
ISR Phase	NOx	PM10
1	0.0000	0.0000
2	0.0000	0.0000
3	1.4153	4.7040
4	0.0000	0.0000
5	0.0000	0.0000
6	0.0000	0.0000
7	0.0000	0.0000
8	0.0000	0.0000
9	0.0000	0.0000
10	0.0000	0.0000
Total	1.4153	4.7040

Project Operations Emissions (Area + Mobile)														
		NOx							PM10					
Project Phase Name	ISR Phase	Operation Start Date	Unmitigated Baseline ⁽¹⁾ (TPY)	Mitigated Baseline ⁽²⁾ (TPY)	Achieved On-site Reductions ⁽³⁾ (tons)	Required Off-site Reductions ⁽⁴⁾ (tons)	Total Emission Reductions Required by Rule ⁽⁶⁾	Average Annual Emission Reductions Required by Rule ⁽⁷⁾	Unmitigated Baseline ⁽¹⁾ (TPY)	Mitigated Baseline ⁽²⁾ (TPY)	Achieved On-site Reductions ⁽³⁾ (tons)	Required Off-site Reductions ⁽⁴⁾ (tons)	Total Emission Reductions Required by Rule ⁽⁶⁾	Average Annual Emission Reductions Required by Rule ⁽⁷⁾
	1				0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
	2				0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Phase 1 - 62 DU	3	5/31/2022	0.8811	0.6924	1.4153	0.7875	2.2028	0.2203	1.0774	0.6070	4.7040	0.6830	5.3870	0.5387
	4				0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
	5				0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
	6				0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
	7				0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
	8				0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
	9				0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
	10				0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
		Total	0.8811	0.6924	1.4153	0.7875	2.2028	0.2203	1.0774	0.6070	4.7040	0.6830	5.3870	0.5387

Total Required Off-Site Reductions (tons)		
ISR Phase	NOx	PM10
1	0.0505	0.0059
2	0.1559	0.0182
3	0.7875	0.6830
4	0.0000	0.0000
5	0.0000	0.0000
6	0.0000	0.0000
7	0.0000	0.0000
8	0.0000	0.0000
9	0.0000	0.0000
10	0.0000	0.0000
Total	0.9939	0.7071

Notes:

TPY: Tons Per Year

⁽¹⁾ Unmitigated Baseline: The project's baseline emissions generated with no on-site emission reduction measures.⁽²⁾ Mitigated Baseline: The project's baseline emissions generated after on-site emission reduction measures have been applied.⁽³⁾ Achieved On-site Reductions: The project's emission reductions achieved after on-site emission reduction measures have been applied.⁽⁴⁾ Required Off-site Reductions: The project's remaining emission reductions required by Rule 9510 if on-site emission reduction measures did not achieve the required rule reductions.⁽⁵⁾ Emission Reductions Required by Rule: The project's emission reductions required (20% NOx and 45% PM10) for construction from the unmitigated baseline.⁽⁶⁾ Total Emission Reductions Required by Rule: The project's emission reductions required (33.3% NOx and 50% PM10) for operations from the unmitigated baseline over a 10-year period.⁽⁷⁾ Average Annual Emission Reductions Required by Rule: The project's total emission reduction for operations required by Rule 9510 divided by 10 years.

6/8/2021

NOTES:

(1) The start date for each ISR phase is shown in TABLE 1.

(2) If you have chosen a ONE-TIME payment for the project, then the total amount due for ALL PHASES is shown under TABLE 2.

(3) If you have chosen a DEFERRED payment schedule or would like to propose a DEFERRED payment schedule for the project, the total amount due for a specific year is shown in TABLE 3 according to the schedule in TABLE 1.

* If you have not provided a proposed payment date, the District sets a default invoice date of 60 days prior to start of the ISR phase.

If applicant selected Fee Deferral Schedule - Please select "Yes" from dropdown menu				No				
TABLE 1 - PROJECT INFORMATION					TABLE 2 - No Fee Deferral Schedule (FDS)			TABLE 2 - NO FDS
Project Phase Name	ISR Phase	Start Date per Phase	Scheduled Payment Date*		Pollutant	Required Offsite Reductions (tons)		2021
Phase 1 - 62 DU	1	12/1/21	n/a		NOx	0.0505		0.0505
					PM10	0.0099		0.0099
Phase 1 - 62 DU	2	1/1/22	n/a		NOx	0.1559		0.1559
					PM10	0.0182		0.0182
Phase 1 - 62 DU	3	5/31/22	n/a		NOx	0.7875		0.7875
					PM10	0.0830		0.0830
	4				NOx	0.0000		0.0000
					PM10	0.0000		0.0000
	5				NOx	0.0000		0.0000
					PM10	0.0000		0.0000
	6				NOx	0.0000		0.0000
					PM10	0.0000		0.0000
	7				NOx	0.0000		0.0000
					PM10	0.0000		0.0000
	8				NOx	0.0000		0.0000
					PM10	0.0000		0.0000
	9				NOx	0.0000		0.0000
					PM10	0.0000		0.0000
	10				NOx	0.0000		0.0000
					PM10	0.0000		0.0000
TOTAL (lbs)					NOx	0.9939		0.9939
					PM10	0.7071		0.7071
Offsite Fee by Pollutant(\$)					NOx	\$9,292		
					PM10	\$6,371		
Administrative Fee (\$)						\$626.52		
Offsite Fee (\$)						\$15,663.00		
Total Project Offsite Fee (\$)						\$16,289.52		
Rule 9510 Fee Schedule (\$/ton)								
Year		NOx	PM10					
2021 and Beyond		\$9,350	\$9,011					

Appendix B
Geotechnical Engineering Investigation prepared by
Krazan & Associates, Inc., dated March 9, 2021

**GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED RESIDENTIAL DEVELOPMENT
GREGER STREET AND KAUFMAN ROAD
OAKDALE, CALIFORNIA**

**PROJECT NO. 072-21008
MARCH 9, 2021**

Prepared for:

**MR. TROY WRIGHT
WINDWARD PACIFIC BUILDERS, INC.
P.O. BOX 576489
MODESTO, CALIFORNIA 95357**

Prepared by:

**KRAZAN & ASSOCIATES, INC.
GEOTECHNICAL ENGINEERING DIVISION
448 MITCHELL ROAD, SUITE C
MODESTO, CALIFORNIA 95354
(209) 572-2200**



GEOTECHNICAL ENGINEERING • ENVIRONMENTAL ENGINEERING
CONSTRUCTION TESTING & INSPECTION

March 9, 2021

Project No. 072-21008

Mr. Troy Wright
Windward Pacific Builders, Inc.
P.O. Box 576489
Modesto, California 95357

**RE: Geotechnical Engineering Investigation
Proposed Residential Development
Greger Street and Kaufman Road
Oakdale, California**

Dear Mr. Wright:

In accordance with your request, we have completed a Geotechnical Engineering Investigation for the above-referenced site. The results of our investigation are presented in the attached report.

If you have any questions or if we can be of further assistance, please do not hesitate to contact our office at (209) 572-2200



Respectfully submitted,
KRAZAN AND ASSOCIATES, INC.

David R. Jarosz, II
Managing Engineer
RGE No. 2698/RCE No. 60185

DRJ:ht

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March 9, 2021

Project No. 072-21008

**GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED RESIDENTIAL DEVELOPMENT
GREGER STREET AND KAUFMAN ROAD
OAKDALE, CALIFORNIA**

INTRODUCTION

This report presents the results of our Geotechnical Engineering Investigation for the proposed Residential Development to be located at Greger Street near Kaufman Road in Oakdale, California. Discussions regarding site conditions are presented herein, together with conclusions and recommendations pertaining to site preparation, Engineered Fill, utility trench backfill, drainage and landscaping, foundations, concrete floor slabs and exterior flatwork, retaining walls, soil cement reactivity and pavement design.

A site plan showing the approximate boring locations is presented following the text of this report. A description of the field investigation, boring logs, and the boring log legend are presented in Appendix A. Appendix A contains a description of the laboratory-testing phase of this study; along with the laboratory test results. Appendices B and C contain guides to earthwork and pavement specifications. When conflicts in the text of the report occur with the general specifications in the appendices, the recommendations in the text of the report have precedence.

PURPOSE AND SCOPE

This investigation was conducted to evaluate the soil and groundwater conditions at the site, to make geotechnical engineering recommendations for use in design of specific construction elements, and to provide criteria for site preparation and Engineered Fill construction.

Our scope of services was outlined in our proposal dated February 1, 2021 (KA Proposal No. P118-21) and included the following:

- A site reconnaissance by a member of our engineering staff to evaluate the surface conditions at the project site.
- A field investigation consisting of drilling 6 borings to depths ranging from approximately 10 to 20 feet for evaluation of the subsurface conditions at the project site.
- Performing laboratory tests on representative soil samples obtained from the borings to evaluate the physical and index properties of the subsurface soils.

-
- Evaluation of the data obtained from the investigation and an engineering analysis to provide recommendations for use in the project design and preparation of construction specifications.
 - Preparation of this report summarizing the results, conclusions, recommendations, and findings of our investigation.

PROPOSED CONSTRUCTION

We understand that design of the proposed development is currently underway; structural load information and other final details pertaining to the structures are unavailable. On a preliminary basis, it is understood development will include the construction of approximately 64 single-family residential lots. It is anticipated buildings will be single- or two-story wood-framed structures utilizing concrete slab-on-grade construction. Footing loads are anticipated to be light to moderate. On-site landscaping and paved areas are also planned for the development of the project.

In the event these structural or grading details are inconsistent with the final design criteria, the Soils Engineer should be notified so that we may update this writing as applicable.

SITE LOCATION, SITE HISTORY AND SITE DESCRIPTION

The site is roughly rectangular in shape and encompasses approximately 13.39 acres. The site is located approximately 600 feet west of Kaufman Road, just north of Greger Street in Oakdale, California. Railroad tracks and residential developments are located north of the site. Residential developments are located west of the site. The remainder of the site is predominately surrounded by commercial and industrial developments.

Site history was obtained by reviewing historical aerial photographs taken in 1998, 2009, 2015 and 2018. Review of the 1998 aerial photograph indicates that the project site predominately consisted of agricultural land. A drainage pond was located in the west-central portion of the site.

Review of the 2009 aerial photograph indicates that the project site conditions appeared relatively similar to that noted in the 1998 aerial photograph, with end-dump piles of fill soil located in the southern half of the site.

Review of the 2015 and 2018 aerial photographs indicate that the project site conditions appeared relatively similar to that noted in the 2009 aerial photograph.

Presently, the site predominately consists of vacant land. End-dump piles of fill soil are located within portions of the site. A drainage pond is located in the west-central portion of the site. Buried utility lines and irrigation lines trend throughout the site. The site is covered by a moderate weed growth and the surface soils have a loose consistency. Concrete curb, gutter, and sidewalk are located along the southern edge of the site. The site is within a hilly area with approximately 15 feet of relief across the site.

GEOLOGIC SETTING

The San Joaquin Valley which includes the Oakdale area, is a topographic and structural basin that is bounded on the east by the Sierra Nevada Mountains and on the west by the Coast Ranges. The Sierra Nevadas, a fault block dipping gently southwestward, is made up of igneous and metamorphic rocks of pre-Tertiary age that comprise the basement complex beneath the Valley. The Coast Ranges contain folded and faulted sedimentary rocks of Mesozoic and Cenozoic age which are similar to those rocks that underlie the Valley at depth and nonconformably overlie the basement complex; gently dipping to nearly horizontal sedimentary rocks of Tertiary and Quaternary age overlie the older rocks. These younger rocks are mostly of continental origin and in the Oakdale area; they were derived from the Sierra Nevadas.

The Coast Ranges evolved as a result of folding, faulting, and accretion of diverse geologic terrains. They are composed chiefly of sedimentary and metamorphic rocks that are sharply deformed into complex structures. They are broken by numerous faults, the San Andreas Fault being the most notable structural feature.

Both the Sierra Nevada and Coast Ranges are geologically young mountain ranges and possess active and potentially active fault zones. Major active faults and fault zones occur at some distance to the east, west, and south of the Modesto area. The Owens Valley Fault Zone bounds the eastern edge of the Sierra Nevada block and contains both active and potentially active faults.

Portions of the Greenville, Calaveras, Hayward, and Rinconada Faults, which are to the west, are considered potentially active. The San Andreas Fault is possibly the best-known fault and is located about 60 to 70 miles to the west.

There are no active fault traces in the project vicinity. Accordingly, the project area is not within an Earthquake Fault Zone (Special Studies Zone) and will not require a special site investigation by an Engineering Geologist.

Oakdale residents could feel the effects of a large seismic event on one of the nearby active or potentially active fault zones. Oakdale has experienced groundshaking from earthquakes in the historical past. According to the County Seismic Safety Element, groundshaking of VI intensity (Modified Mercalli Scale) was felt in Oakdale from the 1872 Owens Valley Earthquake. This is the largest known earthquake event affecting the Oakdale area.

Secondary hazards from earthquakes include rupture, seiche, landslides, liquefaction, and subsidence. Since there are no known faults within the immediate area, ground rupture from surface faulting should not be a potential problem. Seiche and landslides are not hazards in the area either. Liquefaction potential (sudden loss of shear strength in a saturated cohesionless soil) should be low since groundshaking intensities within the vicinity are not strong enough to generate this type of failure. In addition, there are no known occurrences of structural or architectural damage due to deep subsidence in the Oakdale area.

FIELD AND LABORATORY INVESTIGATIONS

Subsurface soil conditions were explored by drilling 6 borings to depths ranging from approximately 10 to 20 feet below existing site grade, using a truck-mounted drill rig. In addition, 2 bulk subgrade samples were obtained from the site for laboratory R-value testing. The approximate boring and bulk sample locations are shown on the site plan. During drilling operations, penetration tests were performed at regular intervals to evaluate the soil consistency and to obtain information regarding the engineering properties of the subsoils. Soil samples were retained for laboratory testing. The soils encountered were continuously examined and visually classified in accordance with the Unified Soil Classification System. A more detailed description of the field investigation is presented in Appendix A.

Laboratory tests were performed on selected soil samples to evaluate their physical characteristics and engineering properties. The laboratory-testing program was formulated with emphasis on the evaluation of natural moisture, density, gradation, shear strength, consolidation potential, expansion potential, R-value and moisture-density relationships of the materials encountered. In addition, chemical tests were performed to evaluate the soil-cement reactivity. Details of the laboratory test program and results of laboratory tests are summarized in Appendix A. This information, along with the field observations, was used to prepare the final boring logs in Appendix A.

SOIL PROFILE AND SUBSURFACE CONDITIONS

Based on our findings, the subsurface conditions encountered appear typical of those found in the geologic region of the site. In general, the surface soils consisted of approximately 6 to 12 inches of very loose silty sand. These soils are disturbed, have low strength characteristics and are highly compressible when saturated.

End dump piles of fill are located within portions of the site. The fill material predominately consisted of silty sand. The thickness and extent of fill material was determined based on limited test borings and visual observation. Thicker fill may be present at the site. Limited testing was performed on the fill soils during the time of our field and laboratory investigations. Preliminary testing on the fill material suggests that the fill soils ranged from loosely placed to compacted.

Below the loose surface soils fill material, approximately 2 to 3 feet of medium dense to dense silty sand was encountered. Some of these soils were weakly cemented in parts. Field and laboratory tests suggest that these soils are moderately strong and slightly compressible. Penetration resistance ranged from 17 to 46 blows per foot. Dry densities ranged from 110 to 125 pcf. Representative soil samples consolidated approximately 2 percent under a 2 ksf load when saturated. A representative soil sample had an angle of internal friction of 42 degrees. A representative sample of the clayey soil had an expansion index of 20.

Below 3 to 4 feet, predominately medium dense to dense silty sand, sandy silt or sand were encountered. Some of these soils contained varying amounts of gravel and clay. Field and laboratory tests suggest that these soils are moderately strong and slightly compressible. The clayey soils had a low potential for

expansion. Penetration resistance ranged from 9 to 64 blows per foot. Dry densities ranged from 91 to 119 pcf. These soils have similar strength characteristics as the upper soils and extended to the termination depth of our borings.

For additional information about the soils encountered, please refer to the logs of borings in Appendix A.

PERCOLATION TESTING

Two percolation tests were performed within the site to evaluate the soils absorption characteristics. The percolation tests were performed inside the test holes drilled within the site. The percolation tests were performed at depths of 5 to 7 feet below the existing ground surface. The tests were conducted in general accordance with the criteria set in the "Manual of Septic Tank Practice" published by the Department of Health, Education, and Welfare. Results of the tests are as follows:

Test No.	Boring No.	Depth (ft)	Percolation Rate (min/in)	Soil Type
P1	B4	5	40	Silty Sand (SM)
P2	B3	7	20	Silty Sand (SM)

The test results indicate that the soils tested are Type V soil, based on the Plumbing Code. The percolation rates given are based on 1 inch of fall within a 6-inch diameter hole with a 6-inch head of water.

GROUNDWATER

Test boring locations were checked for the presence of groundwater during and immediately following the drilling operations. Free groundwater was not encountered within our borings.

It should be recognized that water table elevations may fluctuate with time, being dependent upon seasonal precipitation, irrigation, land use, and climatic conditions, as well as other factors. Therefore, water level observations at the time of the field investigation may vary from those encountered during the construction phase of the project. The evaluation of such factors is beyond the scope of this report.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of our field and laboratory investigations, along with previous geotechnical experience in the project area, the following presents a summary of our evaluation, conclusions, and recommendations for your consideration.

Administrative Summary

In brief, the subject site and soil conditions with the exception of the loose surface soils, fill material and previous development appear to be conducive to the development of the project. The surface soils have a loose consistency. These soils are disturbed, have low strength characteristics and are highly

compressible when saturated. Accordingly, it is recommended that the surface soils be recompacted. This compaction effort should stabilize the surface soils and locate any unsuitable or pliant areas not found during our field investigation.

Fill material was not encountered in our borings. However, end dump piles of fill are located within portions of the site. In addition, fill may be present between and beyond our boring locations. It is anticipated the fill material would consist of silty sands. The thickness and extent of fill material was determined based on limited test borings and visual observation. Thicker fill may be present at the site. Verification of the extent of fill should be determined during site grading. It is recommended that fill soils be excavated and stockpiled so that the native soils can be prepared properly. Over-excavation should extend to a minimum of 5 feet beyond structural elements. It is anticipated the fill material will be suitable for reuse as Engineered Fill, provided it is cleansed of excessive organics and debris.

The site is predominately vacant. However, end dump piles of fill are located within portions of the site. Furthermore, the site was previously utilized as agricultural land. Furthermore, the site is surrounded by existing residential, commercial and industrial developments. Associated with these developments are buried structures, such as utility lines and irrigation lines that may extend into the site. Demolition activities should include proper removal of any buried structures. Any surface and buried structures/utilities or loosely backfilled excavations encountered during construction should be properly removed and the resulting excavations backfilled. It is suspected that demolition activities of the existing structures will disturb the upper soils. After demolition activities, it is recommended that these disturbed soils be removed and/or recompacted. This compaction effort should stabilize the upper soils and locate any unsuitable or pliant areas not found during our field investigation.

A drainage pond is located in the west-central portion of the site. All deleterious materials and loose soils should be removed from the pond and the resulting excavation should be cleaned to firm native soil, and backfilled with Engineered Fill compacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557.

Sandy soil conditions were encountered at the site. These cohesionless soils have a tendency to cave in trench wall excavations. Shoring or sloping back trench sidewalls may be required within these sandy soils.

After completion of the recommended site preparation, the site should be suitable for shallow footing support. The proposed structure footings may be designed utilizing an allowable bearing pressure of 2,000 psf for dead-plus-live loads. Footings should have a minimum embedment of 12 inches.

Groundwater Influence on Structures/Construction

Based on our findings and historical records, it is not anticipated that groundwater will rise within the zone of structural influence or affect the construction of foundations and pavements for the project. However, if earthwork is performed during or soon after periods of precipitation, the subgrade soils may become saturated, "pump," or not respond to densification techniques. Typical remedial measures include: discing and aerating the soil during dry weather; mixing the soil with dryer materials; removing

and replacing the soil with an approved fill material; or mixing the soil with an approved lime or cement product. Our firm should be consulted prior to implementing remedial measures to observe the unstable subgrade conditions and provide appropriate recommendations.

Site Preparation

General site clearing should include removal of vegetation; existing utilities; structures including foundations, basement walls and floors; existing stockpiled soil; trees and associated root systems; rubble; rubbish; and any loose and/or saturated materials. Site stripping should extend to a minimum depth of 2 to 4 inches, or until all organics in excess of 3 percent by volume are removed. Deeper stripping may be required in localized areas. These materials will not be suitable for use as Engineered Fill. However, stripped top soils may be stockpiled and reused in landscape or non-structural areas.

Fill material was not encountered in our borings. However, end dump piles of fill are located within portions of the site. Furthermore, fill may be present between and beyond our boring locations. It is anticipated the fill material would consist of silty sands. The thickness and extent of fill material was determined based on limited test borings and visual observation. Thicker fill may be present at the site. Verification of the extent of fill should be determined during site grading. It is recommended that fill soils be excavated and stockpiled so that the native soils can be prepared properly. Over-excavation should extend to a minimum of 5 feet beyond structural elements. It is anticipated the fill material will be suitable for reuse as Engineered Fill, provided it is cleansed of excessive organics and debris.

The site was previously utilized as agricultural land. In addition, the site is surrounded by existing developments. Any surface or buried structures, including utilities and loosely backfilled excavations, encountered during construction should be properly removed and the resulting excavations backfilled. It is recommended that disturbed soils be removed and/or recompacted. It is suspected that demolition activities of the existing structures will disturb the upper soils. Excavations, depressions, or soft and pliant areas extending below planned finished subgrade levels should be cleaned to firm, undisturbed soil and backfilled with Engineered Fill. Any buried structures encountered during construction should be properly removed and backfilled. In general, any septic tanks, debris pits, cesspools, or similar structures should be entirely removed. Concrete footings should be removed to an equivalent depth of at least 3 feet below proposed footing elevations or as recommended by the Soil Engineer. Any other buried structures should be removed in accordance with the recommendations of the Soil Engineer. The resulting excavations should be backfilled with Engineered Fill.

A drainage pond is located in the west-central portion of the site. All deleterious materials and loose soils should be removed from the pond and the resulting excavation should be cleaned to firm native soil, and backfilled with Engineered Fill compacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557.

Following stripping, fill removal operations, tree removal operations and demolition activities, the exposed subgrade in building pad and exterior flatwork areas should be excavated/scarified to a depth of at least 12 inches, worked until uniform and free from large clods, moisture-conditioned as necessary,

and recompacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557. This compaction effort should stabilize the surface soils and locate any unsuitable or pliant areas not found during our field investigation.

The upper soils during wet winter months become very moist due to the absorptive characteristics of the soil. Earthwork operations performed during winter months may encounter very moist unstable soils, which may require removal to grade a stable building foundation. Project site winterization consisting of placement of aggregate base and protecting exposed soils during the construction phase should be performed.

A representative of our firm should be present during all site clearing and grading operations to test and observe earthwork construction. This testing and observation is an integral part of our service as acceptance of earthwork construction is dependent upon compaction of the material and the stability of the material. The Soils Engineer may reject any material that does not meet compaction and stability requirements. Further recommendations of this report are predicated upon the assumption that earthwork construction will conform to recommendations set forth in this section and the Engineered Fill section.

Engineered Fill

The organic-free on-site, upper native soils are predominately silty sands, sandy silts and sands. Some of these soils contained traces of gravel. These soils will be suitable for reuse as Engineered Fill, provided they are cleansed of excessive organics, debris, and fragments larger than 4 inches in maximum dimension. Clayey soils with an expansion index greater than 20 should not be used in the upper 12 inches of soil supporting slabs-on-grade and exterior flatwork.

The preferred materials specified for Engineered Fill are suitable for most applications with the exception of exposure to erosion. Project site winterization and protection of exposed soils during the construction phase should be the sole responsibility of the Contractor, since he has complete control of the project site at that time.

Imported Fill material should be predominately non-expansive granular material with a plasticity index less than 10 and an expansion index less than 20. Imported Fill should be free from rocks and lumps greater than 4 inches in maximum dimension. All Imported Fill material should be submitted for approval to the Soils Engineer at least 48 hours prior to delivery to the site.

Fill soils should be placed in lifts approximately 6 inches thick, moisture-conditioned as necessary, and compacted to achieve at least 90 percent of the maximum density based on ASTM Test Method D1557. Clayey soils should be moisture-conditioned to a minimum of 2 percent above optimum moisture content. Additional lifts should not be placed if the previous lift did not meet the required dry density or if soil conditions are not stable.

Drainage and Landscaping

The ground surface should slope away from building pad and pavement areas toward appropriate drop inlets or other surface drainage devices. In accordance with Section 1804 of the 2019 California Building Code, it is recommended that the ground surface adjacent to foundations be sloped a minimum of 5 percent for a minimum distance of 10 feet away from structures, or to an approved alternative means of drainage conveyance. Swales used for conveyance of drainage and located within 10 feet of foundations should be sloped a minimum of 2 percent. Impervious surfaces, such as pavement and exterior concrete flatwork, within 10 feet of building foundations should be sloped a minimum of 1 percent away from the structure. Drainage gradients should be maintained to carry all surface water to collection facilities and off-site. These grades should be maintained for the life of the project.

Utility Trench Backfill

Utility trenches should be excavated according to accepted engineering practices following OSHA (Occupational Safety and Health Administration) standards by a Contractor experienced in such work. The responsibility for the safety of open trenches should be borne by the Contractor. Traffic and vibration adjacent to trench walls should be minimized; cyclic wetting and drying of excavation side slopes should be avoided. Depending upon the location and depth of some utility trenches, groundwater flow into open excavations could be experienced, especially during or shortly following periods of precipitation.

Utility trench backfill placed in or adjacent to buildings and exterior slabs should be compacted to at least 90 percent of maximum density based on ASTM Test Method D1557. The utility trench backfill placed in pavement areas should be compacted to at least 90 percent of the maximum density based on ASTM Test Method D1557. Pipe bedding should be in accordance with pipe manufacturer's recommendations.

Sandy soil conditions were encountered at the site. These cohesionless soils have a tendency to cave in trench wall excavations. Shoring or sloping back trench sidewalls may be required within these sandy soils.

The Contractor is responsible for removing all water-sensitive soils from the trench regardless of the backfill location and compaction requirements. The Contractor should use appropriate equipment and methods to avoid damage to the utilities and/or structures during fill placement and compaction.

Foundations

After completion of the recommended site preparation, the site should be suitable for shallow footing support. The proposed structures may be supported on a shallow foundation system bearing on the undisturbed native soils or on Engineered Fill. Spread and continuous footings can be designed for the following maximum allowable soil bearing pressures:

Load	Allowable Loading
Dead Load Only	1,500 psf
Dead-Plus-Live Load	2,000 psf
Total Load, including wind or seismic loads	2,650 psf

The footings should have a minimum depth of 12 inches below pad subgrade (soil grade) or adjacent exterior grade, whichever is lower. Footings should have a minimum width of 12 inches, regardless of load.

The footing excavations should not be allowed to dry out any time prior to pouring concrete. It is recommended that footings be reinforced by at least one No. 4 reinforcing bar in both top and bottom.

The total settlement is not expected to exceed 1 inch. Differential settlement should be less than ½ inch. Most of the settlement is expected to occur during construction as the loads are applied. However, additional post-construction settlement may occur if the foundation soils are flooded or saturated.

Resistance to lateral footing displacement can be computed using an allowable friction factor of 0.35 acting between the base of foundations and the supporting subgrade. Lateral resistance for footings can alternatively be developed using an allowable equivalent fluid passive pressure of 300 pounds per cubic foot acting against the appropriate vertical footing faces. The frictional and passive resistance of the soil may be combined without reduction in determining the total lateral resistance. A ½ increase in the above value may be used for short duration, wind, or seismic loads.

Floor Slabs and Exterior Flatwork

Concrete slab-on-grade floors should be underlain by a water vapor retarder. The water vapor retarder should be installed in accordance with accepted engineering practice. The water vapor retarder should consist of a vapor retarder sheeting underlain by a minimum of 3 inches of compacted, clean, gravel of ¾-inch maximum size. To aid in concrete curing an optional 2 to 4 inches of granular fill may be placed on top of the vapor retarder. The granular fill should consist of damp clean sand with at least 10 to 30 percent of the sand passing the 100 sieve. The sand should be free of clay, silt or organic material. Rock dust which is manufactured sand from rock crushing operations is typically suitable for the granular fill. This granular fill material should be compacted.

The exterior floors should be poured separately in order to act independently of the walls and foundation system. All fills required to bring the building pads to grade should be Engineered Fills.

The floor slab should be reinforced at a minimum with #3 reinforcement bars at 24 inches on-center each way within the floor slabs middle-third. Thicker floor slabs with increased concrete strength and reinforcement should be designed wherever heavy concentrated loads, heavy equipment, or machinery is anticipated.

Moisture within the structure may be derived from water vapors, which were transformed from the moisture within the soils. This moisture vapor can travel through the vapor membrane and penetrate the slab-on-grade. This moisture vapor penetration can affect floor coverings and produce mold and mildew in the structure. To reduce moisture vapor intrusion, it is recommended that a vapor retarder be installed. It is recommended that the utility trenches within the structure be compacted, as specified in our report, to reduce the transmission of moisture through the utility trench backfill. Special attention to the immediate drainage and irrigation around the building is recommended. Positive drainage should be established away from the structure and should be maintained throughout the life of the structure. Ponding of water should not be allowed adjacent to the structure. Over-irrigation within landscaped areas adjacent to the structure should not be performed. In addition, ventilation of the structure (i.e. ventilation fans) is recommended to reduce the accumulation of interior moisture.

Lateral Earth Pressures and Retaining Walls

Walls retaining horizontal backfill and capable of deflecting a minimum of 0.1 percent of its height at the top may be designed using an equivalent fluid active pressure of 40 pounds per square foot per foot of depth. Walls that are incapable of this deflection or walls that are fully constrained against deflection may be designed for an equivalent fluid at-rest pressure of 60 pounds per square foot per foot per depth. Expansive soils should not be used for backfill against walls. The wedge of non-expansive backfill material should extend from the bottom of each retaining wall outward and upward at a slope of 2:1 (horizontal to vertical) or flatter. The stated lateral earth pressures do not include the effects of hydrostatic water pressures generated by infiltrating surface water that may accumulate behind the retaining walls; or loads imposed by construction equipment, foundations, or roadways.

During grading and backfilling operations adjacent to any walls, heavy equipment should not be allowed to operate within a lateral distance of 5 feet from the wall, or within a lateral distance equal to the wall height, whichever is greater, to avoid developing excessive lateral pressures. Within this zone, only hand operated equipment ("whackers," vibratory plates, or pneumatic compactors) should be used to compact the backfill soils.

R-Value Test Results and Pavement Design

Two R-value samples were obtained from the project site at the locations shown on the attached site plan. The samples were tested in accordance with the State of California Materials Manual Test Designation 301. Results of the tests are as follows:

Sample	Depth	Description	R-Value at Equilibrium
1	12-24"	Silty Sand (SM)	46
2	12-24"	Silty Sand (SM)	43

The test results are moderate and indicate good subgrade support characteristics under dynamic traffic loads. The following table shows the recommended pavement sections for various traffic indices.

Traffic Index	Asphaltic Concrete	Class II Aggregate Base*	Compacted Subgrade**
4.0	2.0"	4.0"	12.0"
4.5	2.5"	4.0"	12.0"
5.0	2.5"	4.0"	12.0"
5.5	3.0"	4.0"	12.0"
6.0	3.0"	5.5"	12.0"
6.5	3.5"	5.5"	12.0"
7.0	4.0"	6.0"	12.0"
7.5	4.0"	7.0"	12.0"

* 95% compaction based on ASTM Test Method D1557 or CAL 216

** 90% compaction based on ASTM Test Method D1557 or CAL 216

If traffic indices are not available, an estimated (typical value) index of 4.5 may be used for light automobile traffic, and an index of 7.0 may be used for light truck traffic.

The following recommendations are for light-duty and heavy-duty Portland Cement Concrete pavement sections.

PORTLAND CEMENT PAVEMENT LIGHT DUTY

Traffic Index	Portland Cement Concrete***	Class II Aggregate Base*	Compacted Subgrade**
4.5	5.0"	--	12.0"

HEAVY DUTY

Traffic Index	Portland Cement Concrete***	Class II Aggregate Base*	Compacted Subgrade**
7.0	6.5"	--	12.0"

* 95% compaction based on ASTM Test Method D1557 or CAL 216

** 90% compaction based on ASTM Test Method D1557 or CAL 216

***Minimum compressive strength of 3000 psi

As indicated previously, fill material is located on the site. It is recommended that any uncertified fill material encountered within pavement areas be removed and/or recompacted. The fill material should be moisture-conditioned to near optimum moisture and recompacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557. As an alternative the Owner may elect not to recompact the existing fill within paved areas. However, the Owner should be aware that the paved areas may settle which may require annual maintenance. At a minimum it is recommended that the upper 12 inches of subgrade soil be moisture conditioned as necessary and recompacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557.

Seismic Parameters – 2019 California Building Code

The Site Class per Section 1613 of the 2019 California Building Code (2019 CBC) and ASCE 7-16, Chapter 20 is based upon the site soil conditions. It is our opinion that a Site Class D is most consistent with the subject site soil conditions. For seismic design of the structures based on the seismic provisions of the 2019 CBC, we recommend the following parameters:

Seismic Item	Value	CBC Reference
Site Class	D	Section 1613.2.2
Site Coefficient F_a	1.371	Table 1613.2.3 (1)
S_s	0.536	Section 1613.2.1
S_{MS}	0.735	Section 1613.2.3
S_{DS}	0.490	Section 1613.2.4
Site Coefficient F_v	2.136	Table 1613.2.3 (2)
S_1	0.232	Section 1613.2.1
S_{M1}	0.496	Section 1613.2.3
S_{D1}	0.330	Section 1613.2.4
T_s	0.674	Section 1613.2

* Based on Equivalent Lateral Force (ELF) Design Procedure being used.

Soil Cement Reactivity

Excessive sulfate in either the soil or native water may result in an adverse reaction between the cement in concrete (or stucco) and the soil. HUD/FHA and CBC have developed criteria for evaluation of sulfate levels and how they relate to cement reactivity with soil and/or water.

Soil samples were obtained from the site and tested in accordance with State of California Materials Manual Test Designation 417. The sulfate concentrations detected from these soil samples were less than 150 ppm and are below the maximum allowable values established by HUD/FHA and CBC. Therefore, no special design requirements are necessary to compensate for sulfate reactivity with the cement.

Compacted Material Acceptance

Compaction specifications are not the only criteria for acceptance of the site grading or other such activities. However, the compaction test is the most universally recognized test method for assessing the performance of the Grading Contractor. The numerical test results from the compaction test cannot be used to predict the engineering performance of the compacted material. Therefore, the acceptance of compacted materials will also be dependent on the stability of that material. The Soils Engineer has the option of rejecting any compacted material regardless of the degree of compaction if that material is considered to be unstable or if future instability is suspected. A specific example of rejection of fill

material passing the required percent compaction is a fill which has been compacted with an in-situ moisture content significantly less than optimum moisture. This type of dry fill (brittle fill) is susceptible to future settlement if it becomes saturated or flooded.

Testing and Inspection

A representative of Krazan & Associates, Inc., should be present at the site during the earthwork activities to confirm that actual subsurface conditions are consistent with the exploratory fieldwork. This activity is an integral part of our service, as acceptance of earthwork construction is dependent upon compaction testing and stability of the material. This representative can also verify that the intent of these recommendations is incorporated into the project design and construction. Krazan & Associates, Inc., will not be responsible for grades or staking, since this is the responsibility of the Prime Contractor.

LIMITATIONS

Soils Engineering is one of the newest divisions of Civil Engineering. This branch of Civil Engineering is constantly improving as new technologies and understanding of earth sciences advance. Although your site was analyzed using the most appropriate and most current techniques and methods, undoubtedly there will be substantial future improvements in this branch of engineering. In addition to advancements in the field of Soils Engineering, physical changes in the site, either due to excavation or fill placement, new agency regulations, or possible changes in the proposed structure after the soils report is completed may require the soils report to be professionally reviewed. In light of this, the Owner should be aware that there is a practical limit to the usefulness of this report without critical review. Although the time limit for this review is strictly arbitrary, it is suggested that 2 years be considered a reasonable time for the usefulness of this report.

Foundation and earthwork construction is characterized by the presence of a calculated risk that soil and groundwater conditions have been fully revealed by the original foundation investigation. This risk is derived from the practical necessity of basing interpretations and design conclusions on limited sampling of the earth. The recommendations made in this report are based on the assumption that soil conditions do not vary significantly from those disclosed during our field investigation. If any variations or undesirable conditions are encountered during construction, the Soils Engineer should be notified so that supplemental recommendations may be made.

The conclusions of this report are based on the information provided regarding the proposed construction. If the proposed construction is relocated or redesigned, the conclusions in this report may not be valid. The Soils Engineer should be notified of any changes so the recommendations may be reviewed and re-evaluated.

This report is a Geotechnical Engineering Investigation with the purpose of evaluating the soil conditions in terms of foundation design. The scope of our services did not include any Environmental Site Assessment for the presence or absence of hazardous and/or toxic materials in the soil, groundwater, or atmosphere; or the presence of wetlands. Any statements, or absence of statements, in this report or

on any boring log regarding odors, unusual or suspicious items, or conditions observed, are strictly for descriptive purposes and are not intended to convey engineering judgment regarding potential hazardous and/or toxic assessment.

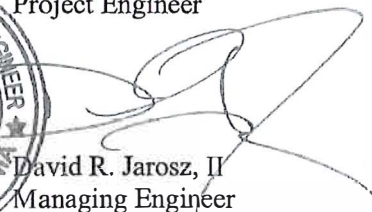
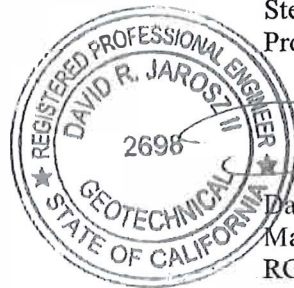
The geotechnical engineering information presented herein is based upon professional interpretation utilizing standard engineering practices and a degree of conservatism deemed proper for this project. It is not warranted that such information and interpretation cannot be superseded by future geotechnical engineering developments. We emphasize that this report is valid for the project outlined above and should not be used for any other sites.

If there are any questions or if we can be of further assistance, please do not hesitate to contact our office at (209) 572-2200.

Respectfully submitted,
KRAZAN & ASSOCIATES, INC.

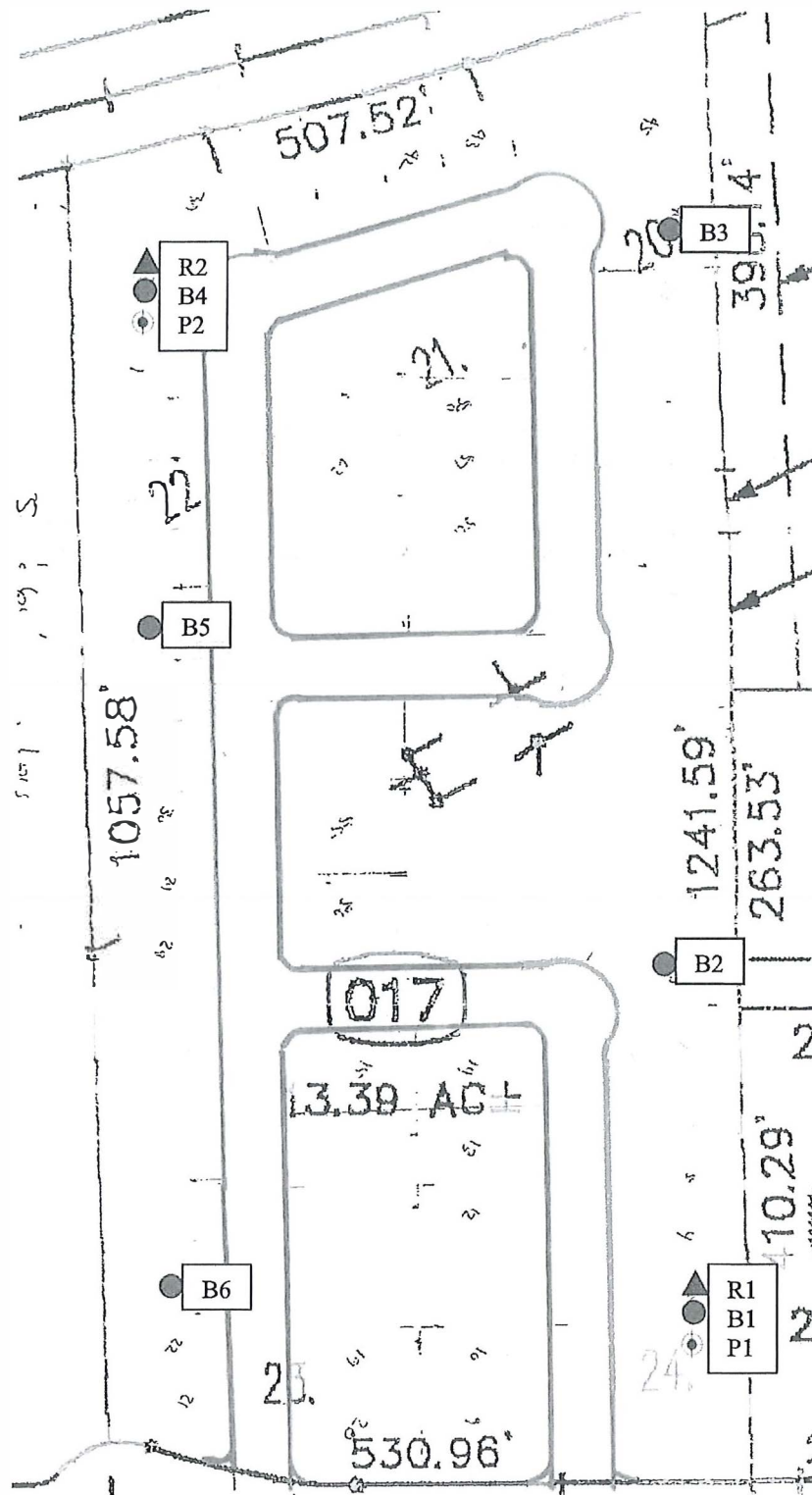


Steve Nelson
Project Engineer




David R. Jarosz, II
Managing Engineer
RGE No. 2698/RCE No. 60185

SN/DRJ:ht



- APPROXIMATE BORING LOCATION
- APPROXIMATE PERCOLATION TEST LOCATION
- ▲ APPROXIMATE R-VALUE LOCATION

SITE MAP	Scale: NTS	Date: March 2021	
Residential Development Greger Street and Kaufman Road Oakdale, California	Drawn by: HT	Approved by: DJ	
	Project No. 072-21008	Figure No. 1	

APPENDIX A

FIELD AND LABORATORY INVESTIGATIONS

Field Investigation

The field investigation consisted of a surface reconnaissance and a subsurface exploratory program. Six 4½-inch diameter exploratory borings were advanced. The boring locations are shown on the site plan.

The soils encountered were logged in the field during the exploration and, with supplementary laboratory test data, are described in accordance with the Unified Soil Classification System.

Modified standard penetration tests were performed at selected depths. This test represents the resistance to driving a 2½-inch diameter core barrel sampler. The driving energy was provided by a hammer weighing 140 pounds, falling 30 inches. Relatively undisturbed soil samples were obtained while performing this test. Bag samples of the disturbed soil were obtained from the auger cuttings. All samples were returned to our Clovis laboratory for evaluation.
















Laboratory Investigation

The laboratory investigation was programmed to determine the physical and mechanical properties of the foundation soil underlying the site. Test results were used as criteria for determining the engineering suitability of the surface and subsurface materials encountered.

In-situ moisture content, dry density, consolidation, direct shear, and sieve analysis tests were completed for the undisturbed samples representative of the subsurface material. Expansion index and R-value tests were completed for select bag samples obtained from the auger cuttings. These tests, supplemented by visual observation, comprised the basis for our evaluation of the site material.

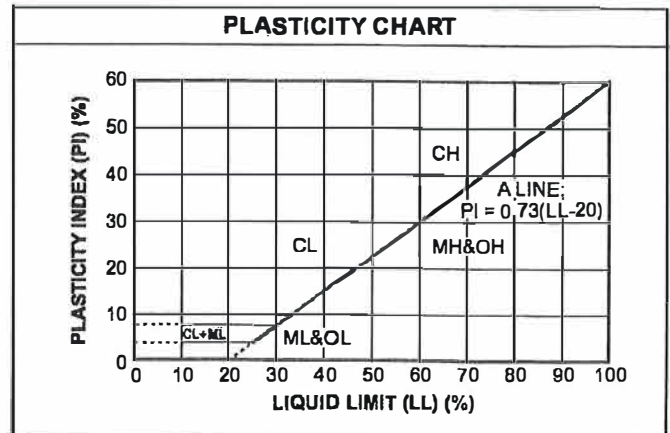
The logs of the exploratory borings and laboratory determinations are presented in this Appendix.

UNIFIED SOIL CLASSIFICATION SYSTEM

UNIFIED SOIL CLASSIFICATION AND SYMBOL CHART			
COARSE-GRAINED SOILS (more than 50% of material is larger than No. 200 sieve size.)			
GRAVELS More than 50% of coarse fraction larger than No. 4 sieve size	Clean Gravels (Less than 5% fines)		
		GW	Well-graded gravels, gravel-sand mixtures, little or no fines
		GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
	Gravels with fines (More than 12% fines)		
		GM	Silty gravels, gravel-sand-silt mixtures
		GC	Clayey gravels, gravel-sand-clay mixtures
SANDS 50% or more of coarse fraction smaller than No. 4 sieve size	Clean Sands (Less than 5% fines)		
		SW	Well-graded sands, gravelly sands, little or no fines
		SP	Poorly graded sands, gravelly sands, little or no fines
	Sands with fines (More than 12% fines)		
		SM	Silty sands, sand-silt mixtures
		SC	Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS (50% or more of material is smaller than No. 200 sieve size.)			
SILTS AND CLAYS Liquid limit less than 50%		ML	Inorganic silts and very fine sands, rock flour, silty of clayey fine sands or clayey silts with slight plasticity
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
		OL	Organic silts and organic silty clays of low plasticity
SILTS AND CLAYS Liquid limit 50% or greater		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
		CH	Inorganic clays of high plasticity, fat clays
		OH	Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS		PT	Peat and other highly organic soils

CONSISTENCY CLASSIFICATION	
Description	Blows per Foot
<i>Granular Soils</i>	
Very Loose	< 5
Loose	5 – 15
Medium Dense	16 – 40
Dense	41 – 65
Very Dense	> 65
<i>Cohesive Soils</i>	
Very Soft	< 3
Soft	3 – 5
Firm	6 – 10
Stiff	11 – 20
Very Stiff	21 – 40
Hard	> 40

GRAIN SIZE CLASSIFICATION		
Grain Type	Standard Sieve Size	Grain Size in Millimeters
Boulders	Above 12 inches	Above 305
Cobbles	12 to 13 inches	305 to 76.2
Gravel	3 inches to No. 4	76.2 to 4.76
Coarse-grained	3 to ¾ inches	76.2 to 19.1
Fine-grained	¾ inches to No. 4	19.1 to 4.76
Sand	No. 4 to No. 200	4.76 to 0.074
Coarse-grained	No. 4 to No. 10	4.76 to 2.00
Medium-grained	No. 10 to No. 40	2.00 to 0.042
Fine-grained	No. 40 to No. 200	0.042 to 0.074
Silt and Clay	Below No. 200	Below 0.074



Log of Boring B1

Project: Residential Development

Project No: 072-21008

Client: Windward Pacific Builders, Inc.

Figure No.: A-1

Location: Greger Street and Kaufman Road, Oakdale, California

Logged By: Erick Escobar

Depth to Water>

Initial: None

At Completion: None

SUBSURFACE PROFILE			SAMPLE				Penetration Test blows/ft	Water Content (%)			
Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.					
		Ground Surface					20 40 60	10 20 30 40			
0		SILTY SAND (SM) Very loose, fine- to medium-grained; brown, moist, drills easily									
2		Loose below 12 inches	120.5	5.8		14					
4		Dense and drills firmly below 5 feet									
6			104.3	9.6		61					
8		SILTY SAND (SM) Loose, fine- to coarse-grained with trace CLAY and GRAVEL; brown, damp, drills easily									
10			107.6	4.8		15					
12											
14		SAND (SP) Medium dense, fine- to medium-grained; brown, damp, drills easily									
16			95.6	3.5		20					
18											
20											

Drill Method: Solid Flight

Drill Date: 2-24-21

Drill Rig: CME 45C

Krazan and Associates

Hole Size: 4½ Inches

Driller: Eddie Tapia

Elevation: 20 Feet

Sheet: 1 of 1

Log of Boring B2

Project: Residential Development

Project No: 072-21008

Client: Windward Pacific Builders, Inc.

Figure No.: A-2

Location: Greger Street and Kaufman Road, Oakdale, California

Logged By: Erick Escobar

Depth to Water>

Initial: None

At Completion: None

SUBSURFACE PROFILE			SAMPLE				Penetration Test blows/ft	Water Content (%)			
Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.					
		Ground Surface									
0		SILTY SAND (SM) Very loose, fine- to coarse-grained with trace GRAVEL and CLAY; brown, moist, drills easily									
2		Loose below 12 inches Medium dense below 2 feet	108.3	6.7		33					
4											
6			112.7	7.9		22					
8		SILTY SAND (SM) Dense, fine- to medium-grained; brown, moist, drills firmly	93.7	25.1		64					
10		SANDY SILT (ML) Dense, fine- to coarse-grained; gray, moist, drills firmly									
12		SILTY SAND (SM) Dense, fine- to coarse-grained; brown, moist, drills easily									
14											
16		End of Borehole									
18											
20											

Drill Method: Solid Flight

Drill Date: 2-24-21

Drill Rig: CME 45C

Krazan and Associates

Hole Size: 4½ Inches

Driller: Eddie Tapia

Elevation: 15 Feet

Sheet: 1 of 1

Log of Boring B3

Project: Residential Development

Project No: 072-21008

Client: Windward Pacific Builders, Inc.

Figure No.: A-3


Location: Greger Street and Kaufman Road, Oakdale, California

Logged By: Erick Escobar

Depth to Water>

Initial: None

At Completion: None

SUBSURFACE PROFILE			SAMPLE				Penetration Test blows/ft	Water Content (%)			
Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.					
		Ground Surface					20 40 60	10 20 30 40			
0		SILTY SAND (SM) Very loose, fine- to coarse-grained with trace CLAY; brown, moist, drills easily Loose below 12 inches Medium dense below 2 feet									
2			125.0	9.7		23					
4											
6		With trace GRAVEL below 5 feet	91.3	5.5		40					
10		End of Borehole									
12											
14											
16											
18											
20											

Drill Method: Solid Flight

Drill Date: 2-24-21

Drill Rig: CME 45C

Krazan and Associates

Hole Size: 4½ Inches

Driller: Eddie Tapia

Elevation: 10 Feet

Sheet: 1 of 1

Log of Boring B4

Project: Residential Development

Project No: 072-21008

Client: Windward Pacific Builders, Inc.

Figure No.: A-4

Location: Greger Street and Kaufman Road, Oakdale, California

Logged By: Erick Escobar

Depth to Water>

Initial: None

At Completion: None

SUBSURFACE PROFILE			SAMPLE				Penetration Test blows/ft	Water Content (%)			
Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.					
		Ground Surface					20 40 60	10 20 30 40			
0		SILTY SAND (SM) Very loose, fine- to medium-grained; brown, moist, drills easily									
2		Loose below 12 inches Dense and drills firmly below 2 feet	113.3	5.4		49					
4											
6			110.3	5.2		52					
8		SILTY SAND (SM) Loose, fine- to coarse-grained with trace GRAVEL; brown, damp, drills easily									
10				3.3		12					
12											
14		SAND (SP) Medium dense, fine- to medium-grained with trace GRAVEL; light brown, moist, drills easily									
16			101.8	5.4		20					
18											
20											

Drill Method: Solid Flight

Drill Date: 2-24-21

Drill Rig: CME 45C

Krazan and Associates

Hole Size: 4½ Inches

Driller: Eddie Tapia

Elevation: 20 Feet

Sheet: 1 of 1

Log of Boring B5

Project: Residential Development

Project No: 072-21008

Client: Windward Pacific Builders, Inc.

Figure No.: A-5

Location: Greger Street and Kaufman Road, Oakdale, California

Logged By: Erick Escobar

Depth to Water>

Initial: None

At Completion: None

SUBSURFACE PROFILE			SAMPLE				Penetration Test blows/ft	Water Content (%)			
Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.					
		Ground Surface					20 40 60	10 20 30 40			
0		SILTY SAND (SM) Very loose, fine- to coarse-grained; brown, moist, drills easily									
2		Loose below 12 inches									
		SILTY SAND (SM) Dense, fine- to medium-grained, weakly cemented; brown, moist, drills firmly	114.4	9.3		56					
4											
		SITLY SAND (SM) Dense, fine- to coarse-grained with trace GRAVEL; brown, moist, drills firmly	106.0	5.8		52					
6											
		SILTY SAND/SAND (SM/SP) Medium dense, fine- to medium-grained with trace GRAVEL; brown, damp, drills easily	109.0	5.0		18					
8											
10											
12											
14											
16		End of Borehole									
18											
20											

Drill Method: Solid Flight

Drill Date: 2-24-21

Drill Rig: CME 45C

Krazan and Associates

Hole Size: 4½ Inches

Driller: Eddie Tapia

Elevation: 15 Feet

Sheet: 1 of 1

Log of Boring B6

Project: Residential Development

Project No: 072-21008

Client: Windward Pacific Builders, Inc.

Figure No.: A-6

Location: Greger Street and Kaufman Road, Oakdale, California

Logged By: Erick Escobar

Depth to Water>

Initial: None

At Completion: None

SUBSURFACE PROFILE			SAMPLE				Penetration Test blows/ft			Water Content (%)			
Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.							
0		Ground Surface											
		SILTY SAND (SM) Very loose, fine- to medium-grained; brown, moist, drills easily											
2		Loose below 12 inches Medium dense below 2 feet	110.0	9.2		17							
4													
		Loose below 5 feet	119.3	7.8		9							
6													
8													
10		End of Borehole											
12													
14													
16													
18													
20													

Drill Method: Solid Flight

Drill Date: 2-24-21

Drill Rig: CME 45C

Krazan and Associates

Hole Size: 4½ Inches

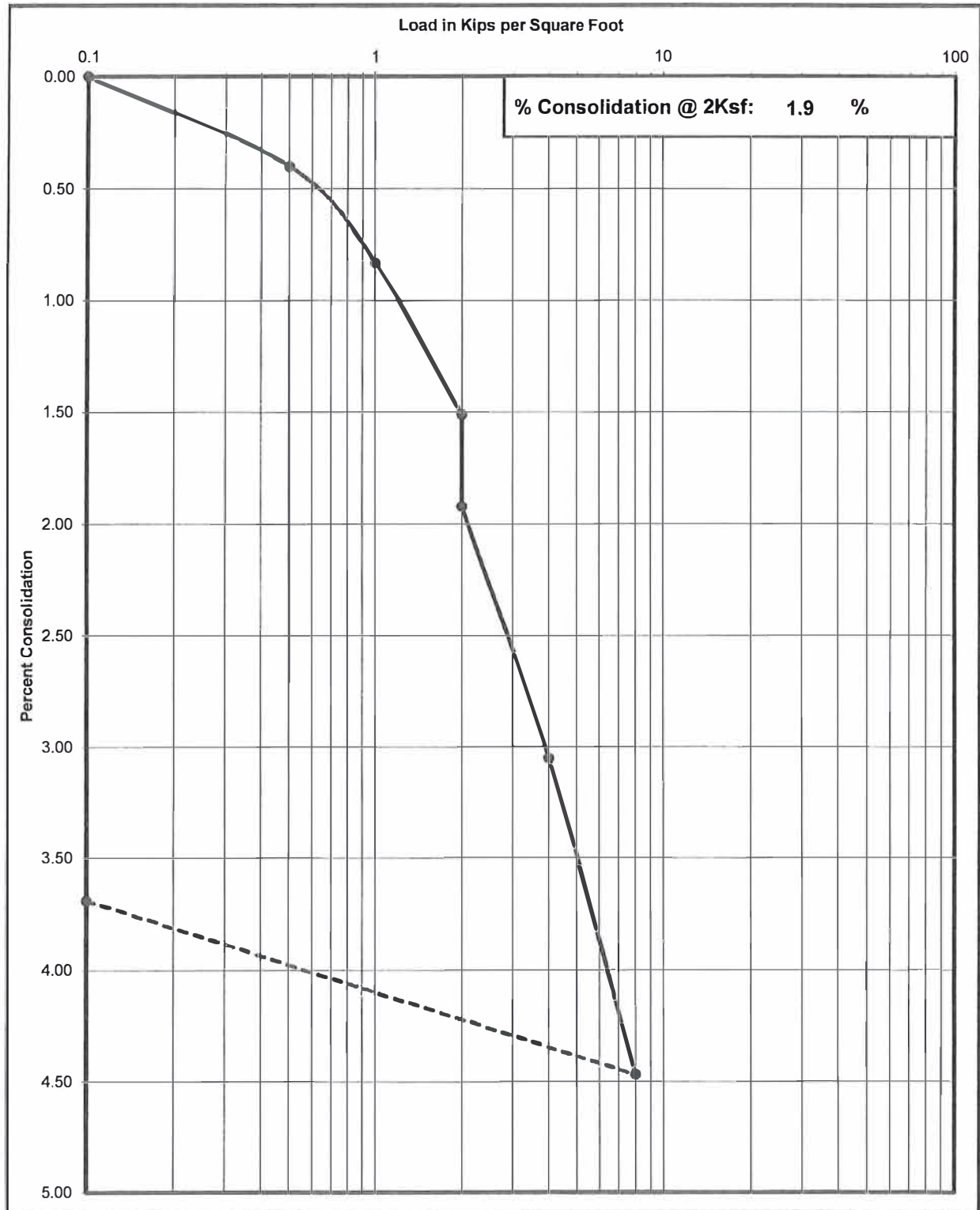
Driller: Eddie Tapia

Elevation: 10 Feet

Sheet: 1 of 1

Consolidation Test

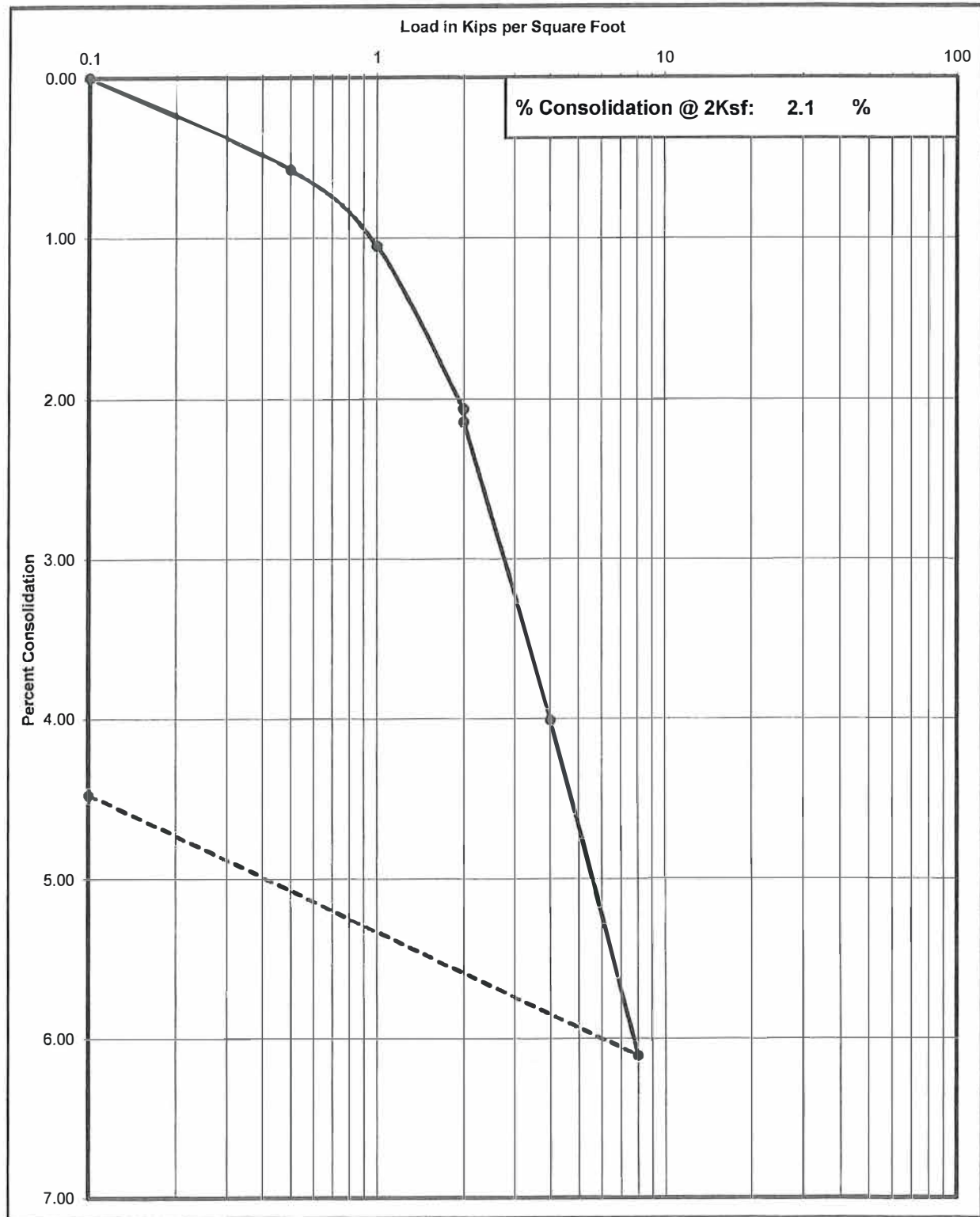
Project No	Boring No. & Depth	Date	Soil Classification
072-21008	B1 @ 2-3'	3/8/2021	SM



Krazan Testing Laboratory

Consolidation Test

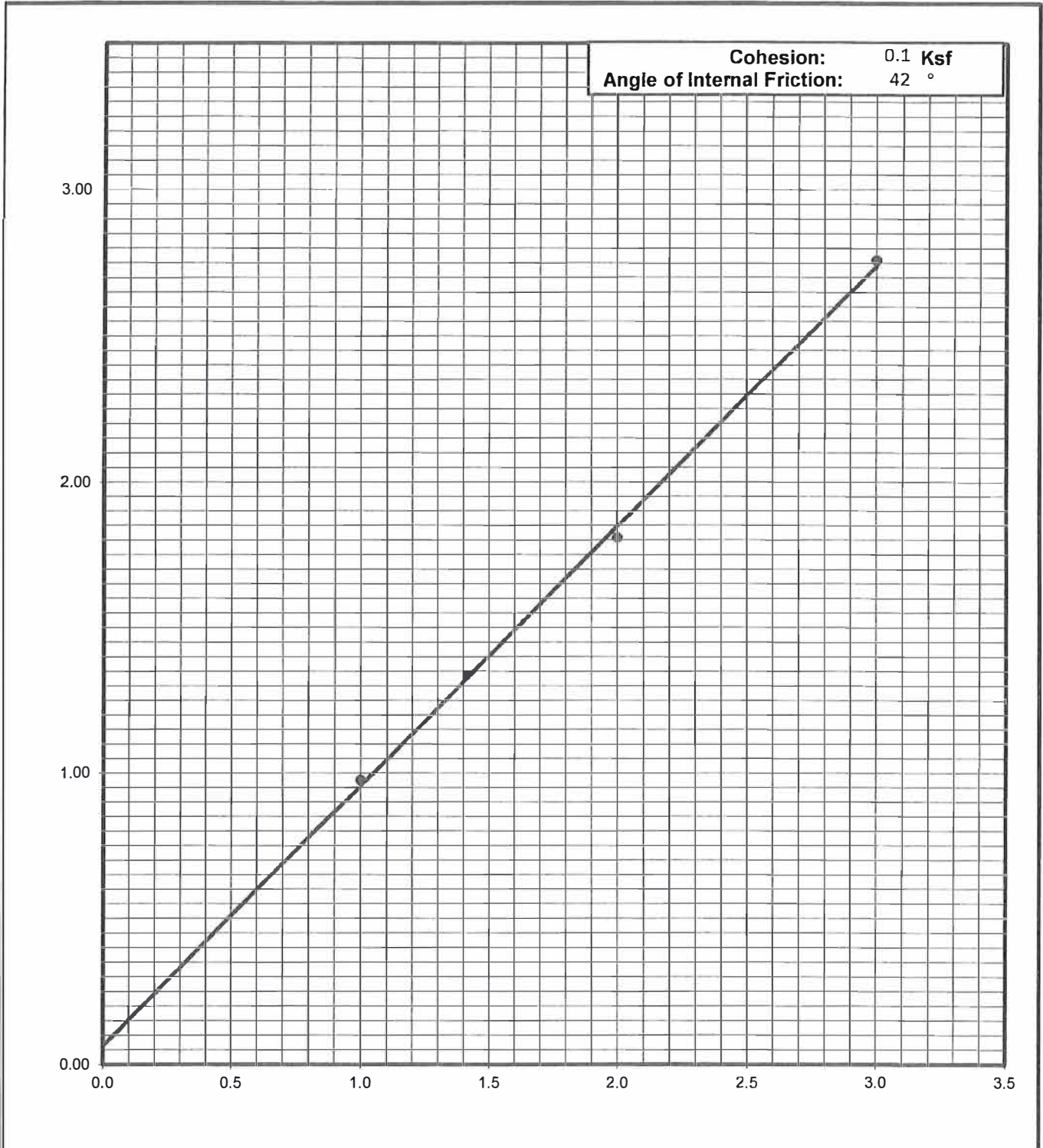
Project No	Boring No. & Depth	Date	Soil Classification
072-21008	B6 @ 2-3'	3/8/2021	SM



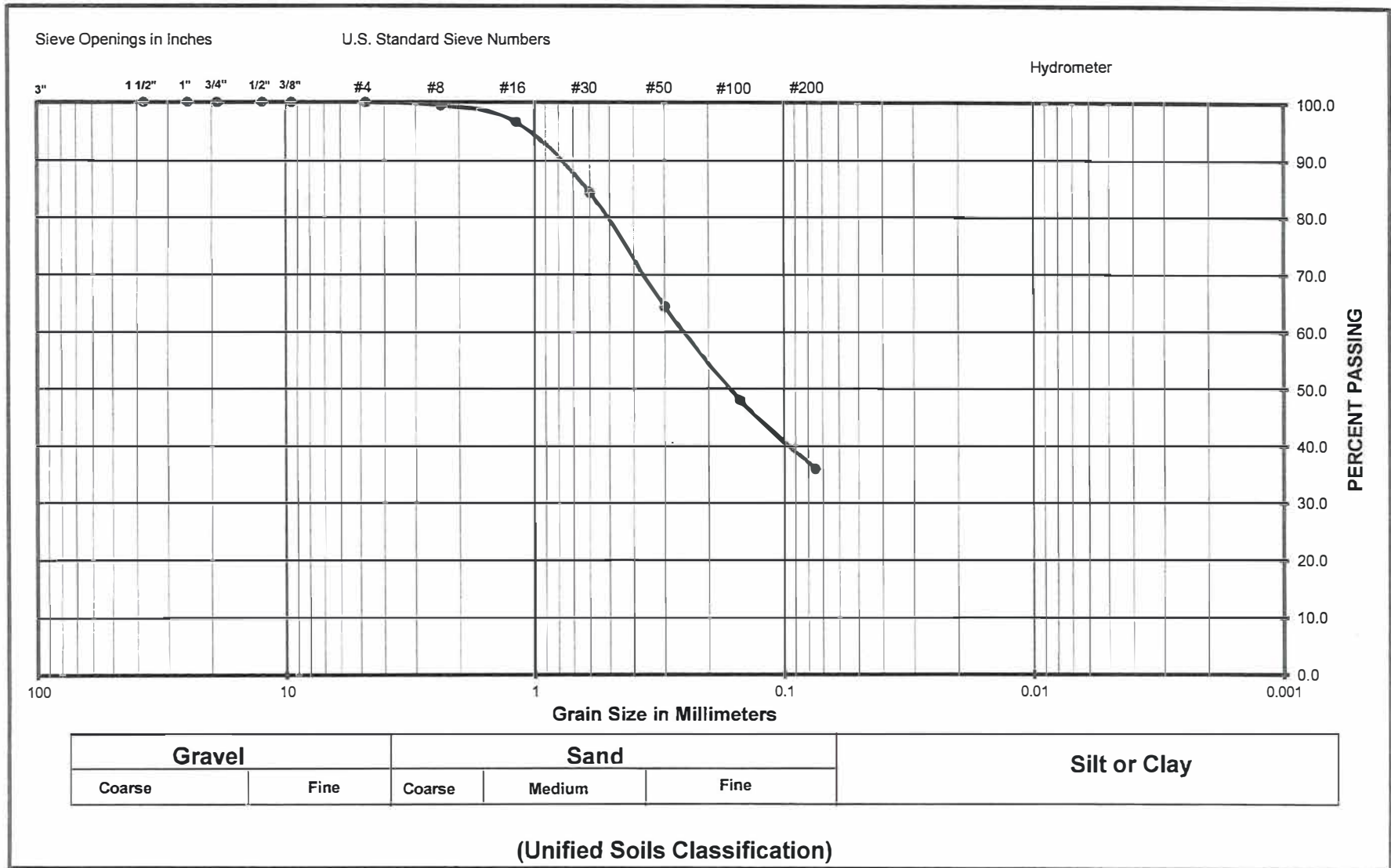
Krazan Testing Laboratory

Shear Strength Diagram (Direct Shear)
ASTM D - 3080 / AASHTO T - 236

Project Number	Boring No. & Depth	Soil Type	Date
072-21008	B3 @ 2-3'	SM w/ trace of clay	3/8/2021



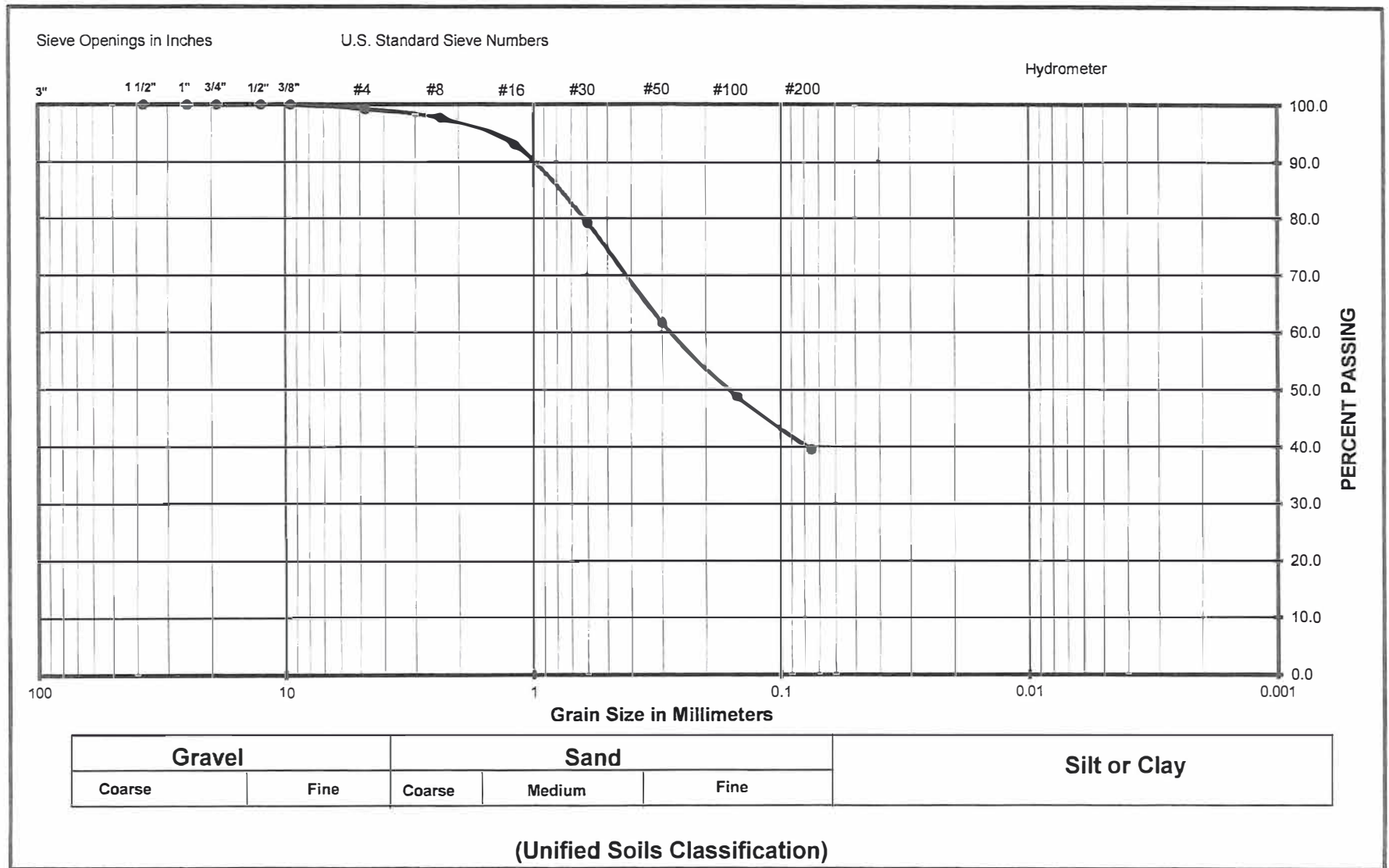
Grain Size Analysis



Project Name Residential Development
 Project Number 072-21008
 Soil Classification SM
 Sample Number B1 @ 2-3'

Krazan Testing Laboratory

Grain Size Analysis



Project Name: Residential Development
 Project Number: 072-21008
 Soil Classification: SM
 Sample Number: B6 @ 2-3'

Krazan Testing Laboratory

Expansion Index Test

ASTM D - 4829

Project Number : 72-21008
Project Name : Residential Development
Date : 3/8/2021
Sample location/ Depth : B2 @ 3-7'
Sample Number : X1
Soil Classification : SM w/ clay

Trial #	1	2	3
Weight of Soil & Mold, gms	767.2		
Weight of Mold, gms	369.8		
Weight of Soil, gms	397.4		
Wet Density, Lbs/cu.ft.	119.9		
Weight of Moisture Sample (Wet), gms	200.0		
Weight of Moisture Sample (Dry), gms	181.8		
Moisture Content, %	10.0		
Dry Density, Lbs/cu.ft.	108.9		
Specific Gravity of Soil	2.7		
Degree of Saturation, %	49.5		

Time	Initial	30 min	1 hr	6hrs	12 hrs	24 hrs
Dial Reading	0	--	--	--	--	0.0197

Expansion Index_{measured} = 19.7

Expansion Index = **20**

Expansion Potential Table	
Exp. Index	Potential Exp.
0 - 20	Very Low
21 - 50	Low
51 - 90	Medium
91 - 130	High
>130	Very High

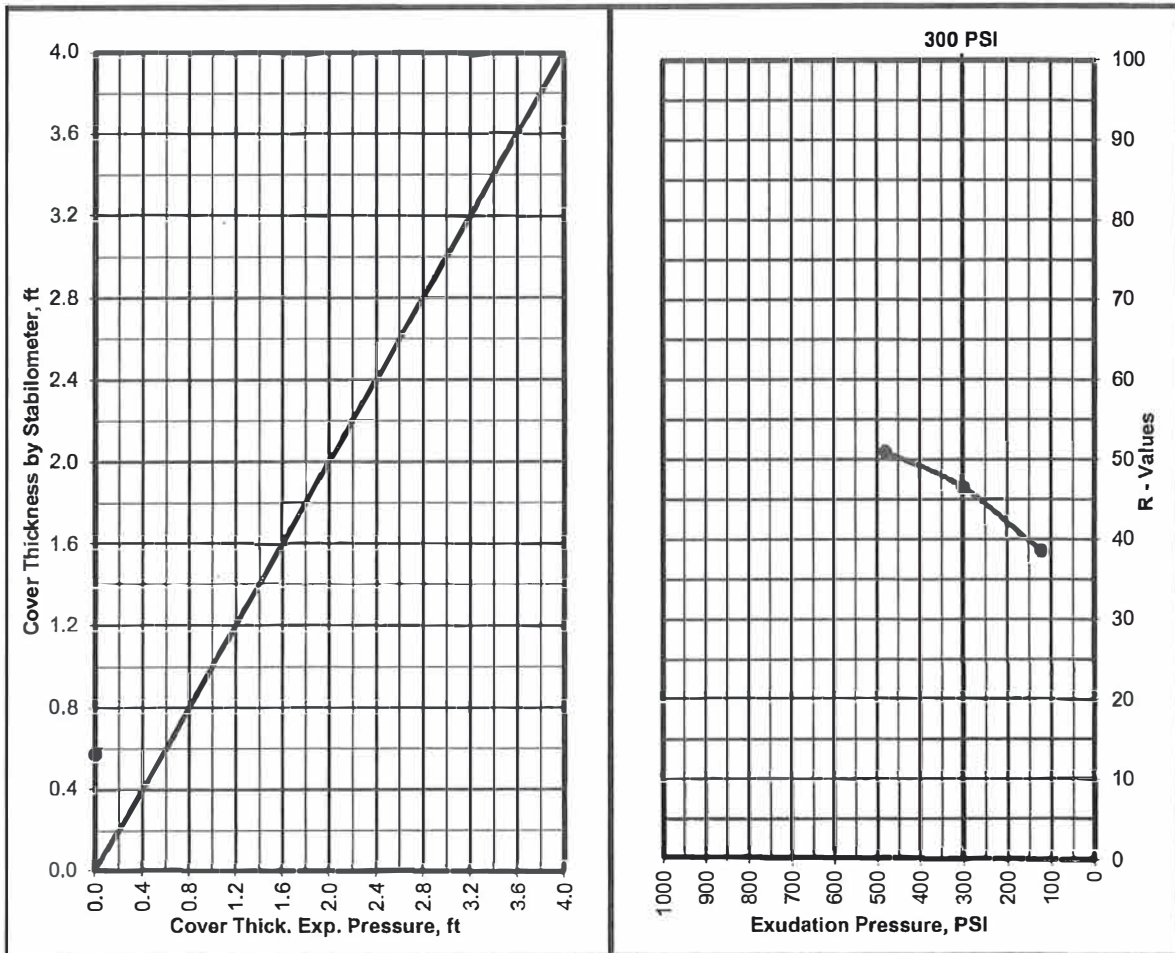
Krazan Testing Laboratory

R - VALUE TEST ASTM D - 2844 / CAL 301

Project Number : 072-21008
 Project Name : Residential Development
 Date : 3/12/2021
 Sample Location/Curve Number : RV#1
 Soil Classification : SM

TEST	A	B	C
Percent Moisture @ Compaction, %	9.9	10.4	9.4
Dry Density, lbm/cu.ft.	128.7	128.6	128.6
Exudation Pressure, psi	300	120	480
Expansion Pressure, (Dial Reading)	0	0	0
Expansion Pressure, psf	0	0	0
Resistance Value R	46	38	51

R Value at 300 PSI Exudation Pressure	46
R Value by Expansion Pressure (TI =): 5	Expansion Pressure nil



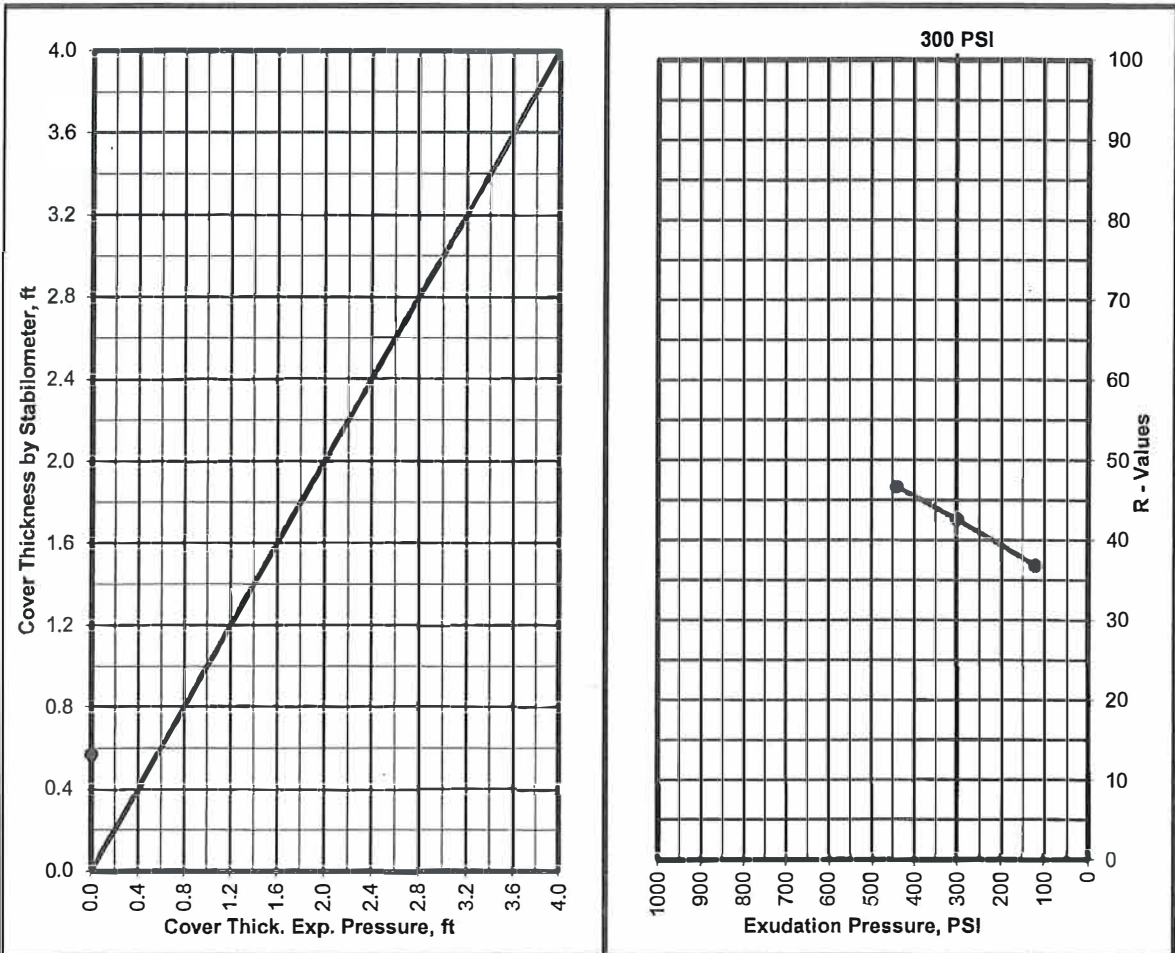
R - VALUE TEST

ASTM D - 2844 / CAL 301

Project Number : 072-21008
 Project Name : Residential Development
 Date : 3/12/2021
 Sample Location/Curve Number : RV#2
 Soil Classification : SM

TEST	A	B	C
Percent Moisture @ Compaction, %	11.0	11.9	12.4
Dry Density, lbm/cu.ft.	127.8	124.6	123.6
Exudation Pressure, psi	440	300	120
Expansion Pressure, (Dial Reading)	0	0	0
Expansion Pressure, psf	0	0	0
Resistance Value R	47	43	37

R Value at 300 PSI Exudation Pressure	43
R Value by Expansion Pressure (TI =): 5	Expansion Pressure nil



APPENDIX B

EARTHWORK SPECIFICATIONS

GENERAL

When the text of the report conflicts with the general specifications in this appendix, the recommendations in the report have precedence.

SCOPE OF WORK: These specifications and applicable plans pertain to and include all earthwork associated with the site rough grading, including but not limited to the furnishing of all labor, tools, and equipment necessary for site clearing and grubbing, stripping, preparation of foundation materials for receiving fill, excavation, processing, placement and compaction of fill and backfill materials to the lines and grades shown on the project grading plans, and disposal of excess materials.

PERFORMANCE: The Contractor shall be responsible for the satisfactory completion of all earthwork in accordance with the project plans and specifications. This work shall be inspected and tested by a representative of Krazan and Associates, Inc., hereinafter known as the Soils Engineer and/or Testing Agency. Attainment of design grades when achieved shall be certified by the project Civil Engineer. Both the Soils Engineer and the Civil Engineer are the Owner's representatives. If the Contractor should fail to meet the technical or design requirements embodied in this document and on the applicable plans, he shall make the necessary readjustments until all work is deemed satisfactory as determined by both the Soils Engineer and the Civil Engineer. No deviation from these specifications shall be made except upon written approval of the Soils Engineer, Civil Engineer or project Architect.

No earthwork shall be performed without the physical presence or approval of the Soils Engineer. The Contractor shall notify the Soils Engineer at least 2 working days prior to the commencement of any aspect of the site earthwork.

The Contractor agrees that he shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and that the Contractor shall defend, indemnify and hold the Owner and the Engineers harmless from any and all liability, real or alleged, in connection with the performance of work on this project, except for liability arising from the sole negligence of the Owner or the Engineers.

TECHNICAL REQUIREMENTS: All compacted materials shall be densified to a density not less than 90 percent relative compaction based on ASTM Test Method D1557 or CAL-216, as specified in the technical portion of the Soil Engineer's report. The location and frequency of field density tests shall be as determined by the Soils Engineer. The results of these tests and compliance with these specifications shall be the basis upon which satisfactory completion of work will be judged by the Soils Engineer.

SOILS AND FOUNDATION CONDITIONS: The Contractor is presumed to have visited the site and to have familiarized himself with existing site conditions and the contents of the data presented in the soil report.

The Contractor shall make his own interpretation of the data contained in said report, and the Contractor shall not be relieved of liability under the Contract documents for any loss sustained as a result of any variance between conditions indicated by or deduced from said report and the actual conditions encountered during the progress of the work.

DUST CONTROL: The work includes dust control as required for the alleviation or prevention of any dust nuisance on or about the site or the borrow area, or off-site if caused by the Contractor's operation either during the performance of the earthwork or resulting from the conditions in which the Contractor leaves the site. The Contractor shall assume all liability, including court costs of codefendants, for all claims related to dust or windblown materials attributable to his work.

SITE PREPARATION

Site preparation shall consist of site clearing and grubbing and the preparations of foundation materials for receiving fill.

CLEARING AND GRUBBING: The Contractor shall accept the site in this present condition and shall demolish and/or remove from the area of designated project earthwork all structures, both surface and subsurface, trees, brush, roots, debris, organic matter, and all other matter determined by the Soils Engineer to be deleterious or otherwise unsuitable. Such materials shall become the property of the Contractor and shall be removed from the site.

Tree root systems in proposed building areas should be removed to a minimum depth of 3 feet and to such an extent which would permit removal of all roots larger than 1 inch. Tree roots removed in parking areas may be limited to the upper 1½ feet of the ground surface. Backfill of tree root excavations should not be permitted until all exposed surfaces have been inspected and the Soils Engineer is present for the proper control of backfill placement and compaction. Burning in areas which are to receive fill materials shall not be permitted.

SUBGRADE PREPARATION: Surfaces to receive Engineered Fill, building or slab loads shall be prepared as outlined above, excavated/scarified to a depth of 12 inches, moisture-conditioned as necessary, and compacted to 90 percent relative compaction.

Loose soil areas, areas of uncertified fill, and/or areas of disturbed soils shall be moisture-conditioned as necessary and recompact to 90 percent relative compaction. All ruts, hummocks, or other uneven surface features shall be removed by surface grading prior to placement of any fill materials. All areas which are to receive fill materials shall be approved by the Soils Engineer prior to the placement of any of the fill material.

EXCAVATION: All excavation shall be accomplished to the tolerance normally defined by the Civil Engineer as shown on the project grading plans. All over-excavation below the grades specified shall be backfilled at the Contractor's expense and shall be compacted in accordance with the applicable technical requirements.

FILL AND BACKFILL MATERIAL: No material shall be moved or compacted without the presence of the Soils Engineer. Material from the required site excavation may be utilized for construction site fills provided prior approval is given by the Soils Engineer. All materials utilized for constructing site fills shall be free from vegetation or other deleterious matter as determined by the Soils Engineer.

PLACEMENT, SPREADING AND COMPACTION: The placement and spreading of approved fill materials and the processing and compaction of approved fill and native materials shall be the responsibility of the Contractor. However, compaction of fill materials by flooding, ponding, or jetting shall not be permitted unless specifically approved by local code, as well as the Soils Engineer.

Both cut and fill areas shall be surface-compacted to the satisfaction of the Soils Engineer prior to final acceptance.

SEASONAL LIMITS: No fill material shall be placed, spread, or rolled while it is frozen or thawing or during unfavorable wet weather conditions. When the work is interrupted by heavy rains, fill operations shall not be resumed until the Soils Engineer indicates that the moisture content and density of previously placed fill are as specified.

APPENDIX C

PAVEMENT SPECIFICATIONS

1. DEFINITIONS - The term "pavement" shall include asphaltic concrete surfacing, untreated aggregate base, and aggregate subbase. The term "subgrade" is that portion of the area on which surfacing, base, or subbase is to be placed.

The term "Standard Specifications": hereinafter referred to is the 2018 Standard Specifications of the State of California, Department of Transportation, and the "Materials Manual" is the Materials Manual of Testing and Control Procedures, State of California, Department of Public Works, Division of Highways. The term "relative compaction" refers to the field density expressed as a percentage of the maximum laboratory density as defined in the applicable tests outlined in the Materials Manual.

2. SCOPE OF WORK - This portion of the work shall include all labor, materials, tools, and equipment necessary for, and reasonably incidental to the completion of the pavement shown on the plans and as herein specified, except work specifically noted as "Work Not Included."

3. PREPARATION OF THE SUBGRADE - The Contractor shall prepare the surface of the various subgrades receiving subsequent pavement courses to the lines, grades, and dimensions given on the plans. The upper 12 inches of the soil subgrade beneath the pavement section shall be compacted to a minimum relative compaction of 90 percent. The finished subgrades shall be tested and approved by the Soils Engineer prior to the placement of additional pavement courses.

4. UNTREATED AGGREGATE BASE - The aggregate base material shall be spread and compacted on the prepared subgrade in conformity with the lines, grades, and dimensions shown on the plans. The aggregate base material shall conform to the requirements of Section 26 of the Standard Specifications for Class 2 material, 1½ inches maximum size. The aggregate base material shall be spread and compacted in accordance with Section 26 of the Standard Specifications. The aggregate base material shall be spread in layers not exceeding 6 inches and each layer of aggregate material course shall be tested and approved by the Soils Engineer prior to the placement of successive layers. The aggregate base material shall be compacted to a minimum relative compaction of 95 percent.

5. AGGREGATE SUBBASE - The aggregate subbase shall be spread and compacted on the prepared subgrade in conformity with the lines, grades, and dimensions shown on the plans. The aggregate subbase material shall conform to the requirements of Section 25 of the Standard Specifications for Class 2 material. The aggregate subbase material shall be compacted to a minimum relative compaction of 95 percent, and it shall be spread and compacted in accordance with Section 25 of the Standard Specifications. Each layer of aggregate subbase shall be tested and approved by the Soils Engineer prior to the placement of successive layers.

6. ASPHALTIC CONCRETE SURFACING - Asphaltic concrete surfacing shall consist of a mixture of mineral aggregate and paving grade asphalt, mixed at a central mixing plant and spread and compacted on a prepared base in conformity with the lines, grades and dimensions shown on the plans. The viscosity grade of the asphalt shall be PG 64-10. The mineral aggregate shall be Type B, ½ inch maximum size, medium grading and shall conform to the requirements set forth in Section 39 of the Standard Specifications. The drying, proportioning and mixing of the materials shall conform to Section 39.

The prime coat, spreading and compacting equipment and spreading and compacting mixture shall conform to the applicable chapters of Section 39, with the exception that no surface course shall be placed when the atmospheric temperature is below 50° F. The surfacing shall be rolled with a combination of steel wheel and pneumatic rollers, as described in Section 39-6. The surface course shall be placed with an approved self-propelled mechanical spreading and finishing machine.

7. FOG SEAL COAT - The fog seal (mixing type asphaltic emulsion) shall conform to and be applied in accordance with the requirements of Section 37.

Appendix C
Traffic Assessment prepared by
KD Anderson & Associates, Inc., dated April 6, 2021

April 6, 2021

Mr. Troy Wright, Vice President for Construction
WINDWARD PACIFIC BUILDERS
135 S. 5th Street, Suite J
Oakdale, CA 95361

**RE: TRANSPORTATION IMPACT ASSESSMENT FOR GREGER STREET GPA AND
SUBDIVISION TENTATIVE MAP, OAKDALE, CA**

Dear Mr. Wright:

Thank you for contacting our firm regarding the **Greger Street GPA and Tentative Subdivision Map** in Oakdale, CA. As we are aware, this project will create 62 single-family residential lots on a 13.2 acre site in southern Oakdale, as shown in Figure 1 (vicinity map) and Figure 2 (tentative map). The project lies on the north side of Greger Street south of the Sierra Northern RR. The project lies at the west end of the General Plan's South Yosemite Industrial Specific Plan, and the area west of the project site is entirely residential. Access to the project would occur at two new driveways on Greger Street.

City of Oakdale staff has suggested that the transportation impacts of a project this size at this location are unlikely to be significant, but as the project requires a General Plan Amendment (GPA) to convert the site from Industrial use (IND) to LDR and zoning will change from M2 to R-1, 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 GP EIR's conclusions/recommendations or City traffic impact fee projects.
- Adequacy of project access to Greger Street.
- 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 GP EIR assumed a FAR of 0.30.

The proposed GP designation of LDR permits 4 to 8 dwelling units (du) per gross acre, and the proposed project's density is 4.7 du/acre. The General Plan EIR assumed an average LDR density between the high and low ends of the range. As noted in Table 1, the project site could be developed with 275.5 thousand square feet (ksf) of industrial buildings under the GP's maximum Floor Area Ratio (FAR), and 172.5 ksf would result at the average FAR assumed in the GPEIR.

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	4.7 du / acre
Project Area (gross acres)	13.2	13.2	13.2
Yield	275.5 ksf	172.5 ksf	62 du's

Background Traffic Conditions

Setting. The project would take its access via Greger Street, and its residents 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 east of the project 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 project boundary and continuing to Crane Road. Similarly, a Class I bike path begins on Greger Street at the project's western 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 project's western boundary slows traffic where bicycle facilities begin and also marks the overall community land use change from residential to industrial uses.

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. 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.

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 GP EIR 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 is slightly higher than that reported by the GPEIR, but that current Level of Service would remain within the City's minimum standard.

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Future Traffic Conditions. The volume of traffic occurring in this area in the future was also suggested by the GPEIR. 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. Greger Street was expected to operate at LOS C, 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 signalized Yosemite Avenue / Greger Street intersection was project to operate at LOS C during the a.m. and p.m. peak traffic hours.

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.

Site Access. The project will be developed with two driveways on Greger Street. The western driveway is 100 feet from the roundabout (centerline to centerline). The driveway is within the limits of the painted "splitter island" that defines the westbound approach. The entrance to a mini-storage is across from but slightly east of the driveway. The project's second driveway is 250 feet further east and about 150 feet from the driveway to the site of City Water Well #10.

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 project as proposed. As indicated, the project as proposed would generate 585 daily trips, which is 33% fewer total daily vehicle trips than would be caused by development under the assumptions of the GPEIR at the average IND density. During the p.m. peak hour the proposed project would generate roughly ½ of the trips associated with the GP's current IND land use designation.

TABLE 2 SITE TRIP GENERATION COMPARISON			
Land Use	General Plan	GPEIR Assumptions	Proposed Project
Industrial (IND)	275.5 ksf	172.5 ksf	-
Daily Trips @ 4.96/ ksf	1,367	870	
Daily Truck Trips @ 0.25 / ksf	69	43	
PM Peak Hour Trips @ 0.70 / ksf	193	120	
Residential du's	-	-	62
Daily Trips @ 9.44 /du			585
PM Peak Hour Trips @ 0.99 / du			62

KDA

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 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.

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 driveways 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. However, because the western driveway is on a curve created by the roundabout, it will be necessary to confirm that no project landscaping is installed immediately east of the driveway in the line of sight.

The project's western driveway is offset from that of the mini-storage across Greger Street. While aligning the two would normally be desirable, because the mini-storage generates relatively little traffic, this change is not required.

The western driveway location within the limits of the roundabout's painted splitter island, which is an issue. Legally, the island prohibits left turns into and out of the driveway. Because the project's eastern access will allow all turning movements, continuing this limitation at the western driveway should not be a problem. However, to enforce that prohibition the City may determine that a raised median is 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. Based on the routes to Oakdale's schools, shopping and employment the project could increase the daily volume on Greger Street by roughly 300 vehicle trips per day ($\frac{1}{2}$ inbound and $\frac{1}{2}$ outbound). 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. 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, the City of Oakdale has not adopted specific VMT guidelines or significance criteria.

In this case, the proposed project is expected to generate appreciably fewer daily trips than would development under the current IND land use designation. In addition, the project is located near the

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center of Oakdale and in proximity to bike lanes and trails that will allow residents 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 62 new residential lots which could replace 172.5 ksf of industrial space under the assumptions made in the GPEIR.
- Based on standard trip generation rates published by the Institute of Transportation Engineers (ITE) the 62 dwelling units would result in 585 daily trips, which is 33% less than the 820 daily trips assumed for the site in the GPEIR. The project would generate 62 p.m. peak hour trips, which is half of the 120 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, but a raised median may be required by the City at the western driveway to enforce the "no left turn" limitation created by the adjoining roundabout's striped "splitter island".
- The project will increase the volume of traffic currently occurring on the streets providing access to the site. However, the increase on Greger Street 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 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 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



KD Anderson & Associates, Inc.
 Transportation Engineers

9436-01 RA 4/6/2021

VICINITY MAP

figure 1

