COUNTY OF TULARE
RESOURCE MANAGEMENT AGENCY

5961 South Mooney Boulevard
Visalia, CA 93277

Initial Study and Mitigated Negative Declaration

Pixley Travel Center

October 2025

Prepared by
County of Tulare Resource Management Agency
Economic Development and Planning Branch
Environmental Planning Division

DRAFT

INITIAL STUDY CHECKLIST

1. **Project Title:** Pixley Travel Center

2. **Lead Agency:** County of Tulare
Resource Management Agency
5961 S. Mooney Blvd.
Visalia, CA 93277

3. **Contact Persons:** Russel Kashiwa Planner III (Project Planner) – 559-624-7110
Gary Mills, Chief Planner, Environmental Planning Division – 559-624-7199

4. **Project Location:** The Pixley Travel Center is located on the northwest corner of Avenue 120 and Road 124, within the Pixley Urban Boundary (UDB). The site is in Section 17, Township 22 South, Range 25 East, MDB&M.

5. **Applicant:** Hi-Tech Developing Inc
3506 W. Nielsen
Fresno, CA 93706

6. **Owner(s)** JHG Holdings LLC
3506 W. Nielsen
Fresno, CA 93706

7. **General Plan Designation:** Planned Industrial/Commercial per Draft Pixley Community Plan

8. **Zoning:** M-1 (Light Manufacturing)

9. **Description of Project (Describe the whole action involved, including but not limited to later phases of the project, and any secondary support, or off-site features necessary for its implementation. Attach additional sheets if necessary).** The proposed Pixley Travel Center (Project) is located east of State Route 99/Avenue interchange on the northwest corner of the intersection of Road 124 and Avenue 120 in Pixley, California (Site). The Project is located on two contiguous parcels (Assessor's Parcel Number [APNs] 300-010-015 and 300-010-005) totaling 36.47 acres. The northern parcel (APN 300-010-015; 9.67 acres) is planned for future development and may include a 17,000-square-foot truck wash and service building, along with associated site features such as a stormwater basin. The southern parcel (APN 300-010-005; 26.80 acres) will accommodate the primary components of the current Project, including a 20,000-square-foot convenience store, vehicle fueling islands and pads, an RV fueling island, a pet and children's play area, fire-water tanks, and related site infrastructure.

   The Project plans include 10 diesel islands for truck fueling, two RV fueling islands, 16 vehicle (gasoline) fueling islands, 18 electric vehicle (EV) charging stations, a truck scale, a 3,100 square foot fast-food restaurant with drive-thru, a pet/playground area for customers, and extensive truck parking areas. The fueling facilities are serviced by three 12,000-gallon gasoline underground storage tanks (USTs), and four 12,000-gallon aboveground fuel storage tanks (ASTs). It includes aboveground tanks and dispensers for biodiesel blender and diesel-emissions fluid (DEF). Ancillary facilities include two 80,000-gallon fire-water tanks, stormwater management facilities including appropriate surface grading, concrete valley gutter and drop inlets, and two stormwater basins (on the north side and on the south side of the Site), and multiple septic tanks with

DRAFT

associated oil-water separators where appropriate), and seepage-pits. Except for the areas of the playground and stormwater basins, the Site surface will be paved with asphalt and/or concrete.

The southern portion of the Project site (i.e., APN 300-010-050) is currently developed as a cotton-ginning facility with scale and office structure. Plans call for this facility to be demolished prior to construction of the Travel Center. Project plans include a Demolition Plan and need for a demolition permit, to be obtained from Tulare County. The Project will also require preparation of a stormwater pollution prevention (SWPP) plan and permit.

The plans include facilities to manage the disposal of wastewater/sewerage on site through several septic systems, and site water (potable, landscaping, and fire suppression) will be provided by an on-site groundwater well which will require permitting through the State as a Public Water System. We understand that the Project proposes to consume a maximum of 4,000 gallons of water per day (gpd) (i.e., 4,000 gpd for operation of convenience store, a fast-food restaurant and general truck stop operations). Depending on the volume of wastewater generated, the applicant may be required to obtain a Waste Discharge Permit from the Regional Water Quality Control Board (RWQCB). Discharge of 10,000 gpd triggers the need for waste discharge requirements. Electric, gas, garbage, and telecommunication services will be provided by private and/or public providers. The Project applicant will coordinate with the local electricity provider to confirm that adequate transmission and supply exist to service the Project, including the 18 proposed EV charging stations.

10. **Surrounding land uses and setting (Brief description):**
North: Agriculture (AE 40)
South: Vacant (M-1)
East: Agriculture (AE 40)
West: Vacant (M-1)

11. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):** San Joaquin Valley Air Pollution Control District, Caltrans, Regional Water Quality Control Board, County of Tulare Health and Human Services/Environmental Health Services, and other to be determined.

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? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?** Pursuant to AB 52, a Sacred Land File request was submitted to the Native American Heritage Commission on August 8, 2024, and was returned with negative results. On August 12, 2024, tribal consultation notices were sent to twenty-four (24) tribal contacts representing eleven (11) Native American tribes. The County received no responses other than one NO Comment from the North Fork Mono Tribe from the tribes within the 30-day response time. Mitigation measures have been included in the Project to reduce potential impacts on tribal cultural resources in the event that any potential resources are unearthed during construction-related activities.

DRAFT

Figure 1. Vicinity Map

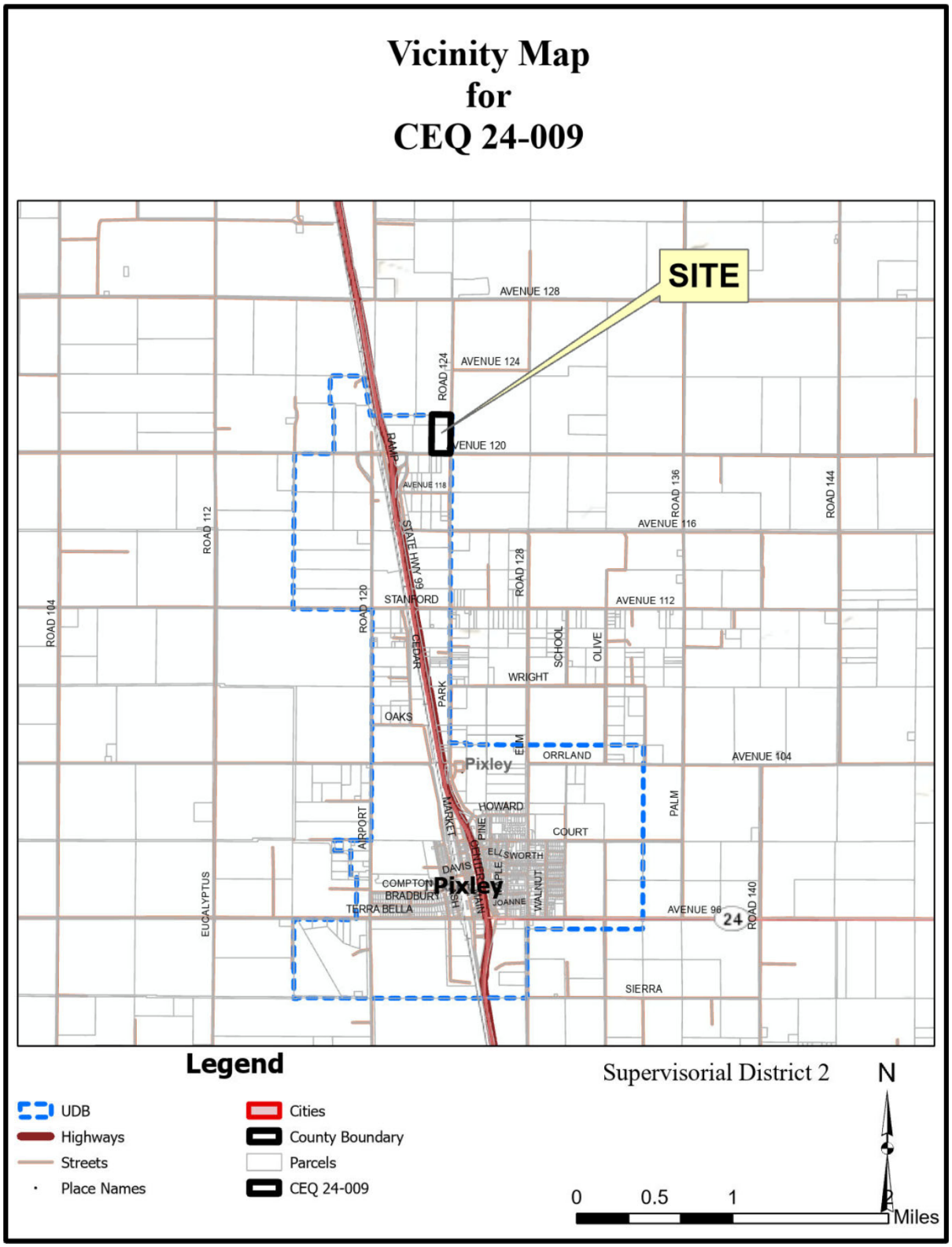


Figure 2. Aerial Photo



Figure 3. Existing Zoning Map

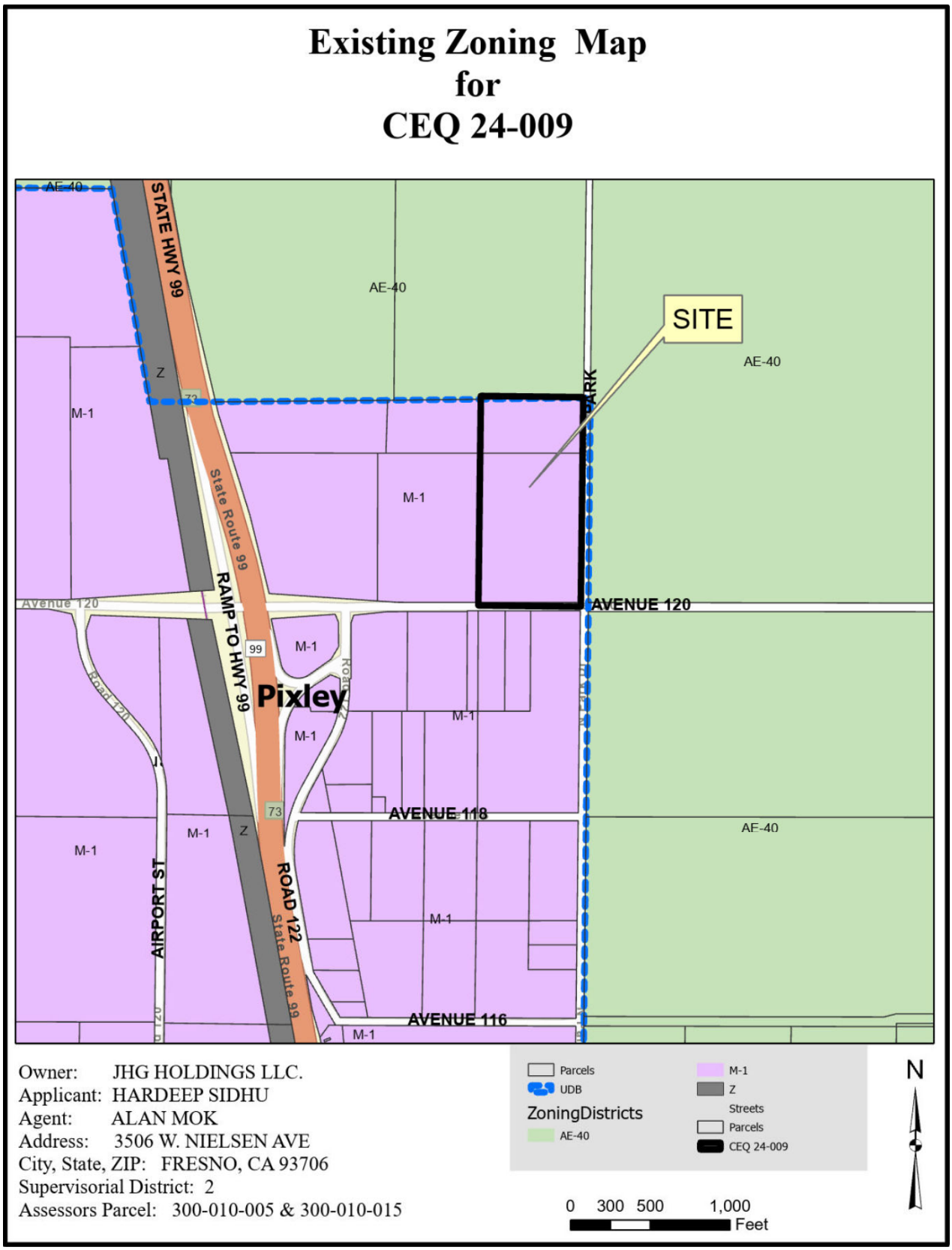


Figure 4. FEMA Flood Map

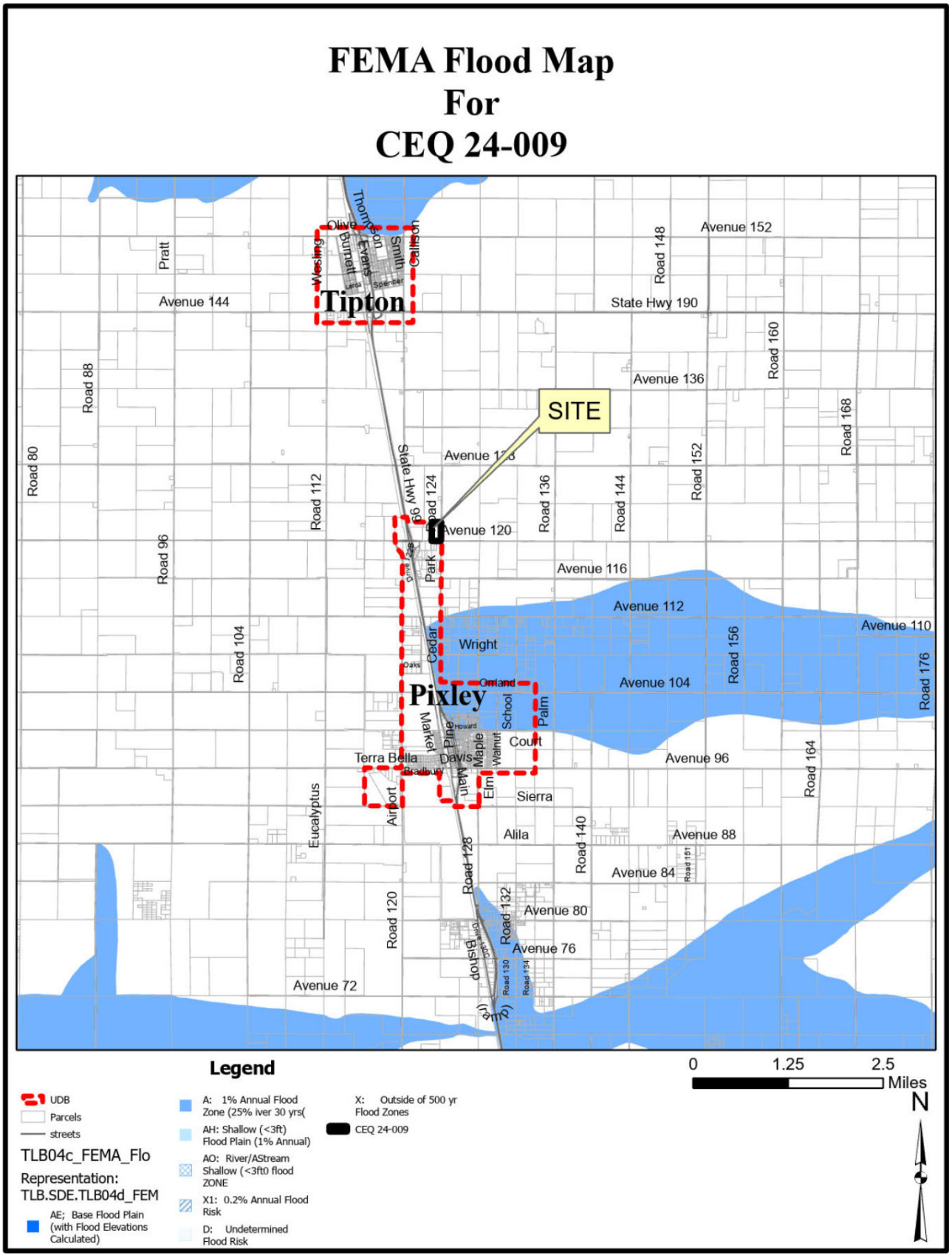
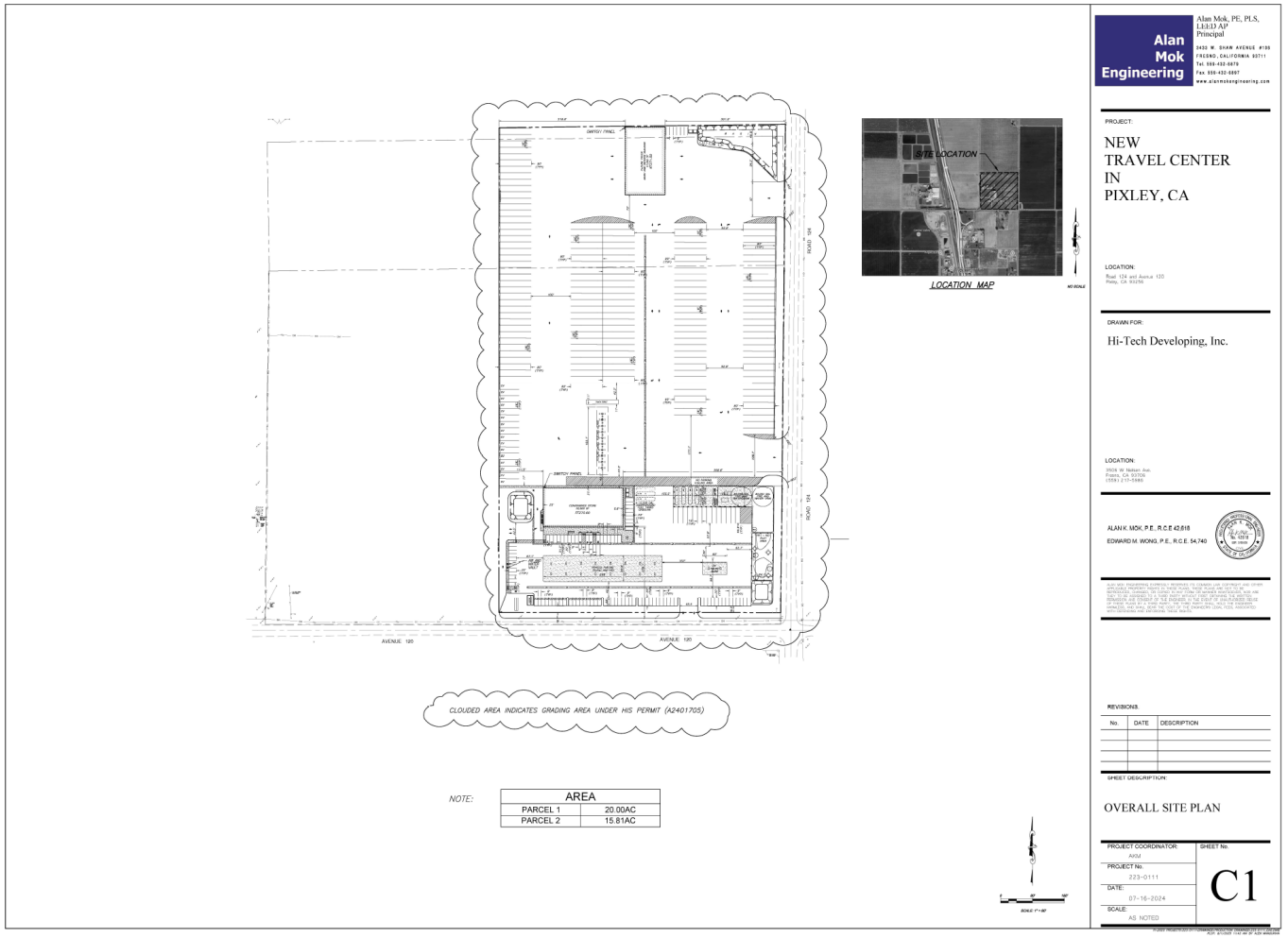


Figure 5. Species of Concern



Figure 6. Site Plan

Exhibit " A "



N

No Scale

Site Plan Illustration
CEQ 24-009

A. 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. **Check only those boxes that are applicable, then delete these instructions.**

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

B. DETERMINATION

On the basis of this initial evaluation: **Check only those boxes that are applicable, then delete these instructions.**

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

☒ I find that although the proposed project could have a significant effect on the environment, there **WILL NOT** be a significant effect in this case because revisions in the project have been made 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.

Environmental Assessment Officer: Reed Schenke, P.E., RMA Director/EAO

Signature: _____ Date: _____

Gary A. Mills — Chief Planner, Environmental Planning
Printed Name — Title

Signature: _____ Date: _____

Michael G. Washam, A.C.E. — Associate RMA Director, Designee
Printed Name — Title

DRAFT

C. EVALUATION OF ENVIRONMENTAL IMPACTS

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 "Earlier Analyses," as described in (5) below, 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.

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.

DRAFT

I. AESTHETICS

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

The following analysis is based on the information provided in the Tulare County General Plan 2030 Update (General Plan), General Plan 2030 Update Background Report (Background Report), Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (General Plan RDEIR), 2015 Pixley Community Plan and EIR, and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: LU-2.3 *Open Space Character;* LU-7.7 *Parking Location*; LU-7.9 *Visual Access*; LU-7.18 *Lighting*; LU-7.19 *Minimize Lighting Impacts*; SL-1.1 *Natural Landscapes*; SL-1.2 *Working Landscapes*; SL-1.3 *Watercourses*; SL-2.1 *Designated Scenic Routes and Highways*; SL-2.2 *Gateway to the Sequoias*; SL-3.*2 Urban Expansion Edges*; SL-4.1 *Design of Highways;* ERM-1.7 *Planting of Native Vegetation*, ERM-1.8 *Open Space Buffers;* ERM-1.15 *Minimize Lighting Impacts; and* ERM-5.19 *Night Sky Protection*.

a) Would the project have a substantial adverse effect on a scenic vista? *NO IMPACT*

Scenic vistas generally refer to a view or vista possessing high visual and aesthetic value, often involving panoramic landscapes with wide and expansive fields of view. The General Plan RDEIR indicates that Tulare County is located in a geographically diverse region with the majestic peaks of the Sierra Nevada framing its eastern region, while its western portion includes the San Joaquin Valley floor, which is very fertile and extensively cultivated. In addition to its agricultural production, the County's economic base also includes agricultural packing and shipping operations. Small and medium-sized manufacturing plants are located in the western part of the county and are increasing in number. Tulare County contains portions of Sequoia National Forest, Sequoia National Monument, Inyo National Forest, and Kings Canyon National Park. Sequoia National Park is entirely contained within the County.

The Project site is located within an agricultural area that is transitioning to urban type uses including highway commercial type developments. The type of current development consists primarily of commercial development, including restaurants, convenience stores, fuel stations, and

industrial/manufacturing uses that are agricultural related. The Project would replace existing agricultural uses and structures with new, modernized commercial buildings that are consistent with the surrounding development. Development of the proposed Project would not obstruct views of the Sierra Nevada Mountains nor would it have any impact on designated open space. Therefore, the Project would not have an adverse effect on a scenic vista.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? *NO IMPACT*

The Project site is not located along a state-designated scenic highway, nor does it contain any known scenic resources such as rock outcroppings or historic buildings. The closest eligible scenic highways designated by Caltrans as a State Scenic Highway is State Route 190; however, it is 3 miles south of the Project site and is unseen from the public roadway. Therefore, the Project would not damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway.

c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? In urbanized areas, would the project conflict with applicable zoning and other regulations governing scenic quality? *LESS THAN SIGNIFICANT IMPACT*

The Project site is located at the northern limits of the Pixley Community Plan Urban Development Boundary (UDB). The surrounding area consists primarily of agriculture uses (north and east), mixed uses of development, including restaurants, convenience stores, and fueling stations, as well as light and heavy manufacturing. The Project would replace existing agricultural uses with new, modernized commercial buildings that are consistent with the surrounding and planned uses.

Tulare County standards and guidelines establish a consistent and uniform set of criteria intended to guide the planning and design of development and building projects. The standards provide applicants with clear expectations and design requirements to ensure new development contributes to the community's desired visual character and quality. Compliance with applicable General Plan policies and community design standards will ensure that the Project would not degrade the existing visual character or quality of public views of the site and its surroundings, or conflict with applicable zoning and other regulations governing scenic quality.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? *LESS THAN SIGNIFICANT IMPACT*

There are no current light sources at the Project site. Development of the site with commercial uses is expected to increase exterior light sources. The proposed Project will introduce new sources of lighting associated with parking areas, building entries, signage, the fuel canopy, and pedestrian walkways. All proposed lighting must comply with the Tulare County building code, which establishes standards to reduce light pollution, light trespass, glare, sky glow impacts, and offensive light sources.

The proposed Project will introduce new sources of lighting associated with parking areas, building entries, signage, the fuel canopy, and pedestrian walkways. New lighting will be installed with the new buildings and site improvements to illuminate entries, parking areas, sidewalks and open spaces, for safety and security, and to highlight architectural features. Compliance with General Plan Policy ERM-5.19 Night

Sky Protection, and Title 24 (California Energy Commission's Building Energy Efficiency Standards) lighting power allowances would adequately control unnecessary brightness of lighting, debilitating glare and sky glow.

DRAFT

II. AGRICULTURAL AND FOREST RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
Would the project:					
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b)	Conflict with existing zoning for agriculture use, or a Williamson Act contract?	☐	☐	☐	☒
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources code 12220(g), timberland (as defined in Public Resource Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

The following analysis is based on the information provided in the Tulare County General Plan 2030 Update (General Plan), General Plan 2030 Update Background Report (Background Report), Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (General Plan RDEIR), 2015 Pixley Community Plan and EIR, and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: AG-1.14 *Right to Farm Noticing*; AG-1.17 *Agricultural Water Resources*; LU-2.3 *Open Space Character*; and WR-1.4 *Conversion of Agricultural Water Resources*.

DRAFT

a) Would the project 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? *NO IMPACT*

According to the California Department of Conservation's Farmland Mapping and Monitoring Program, the Project site's farmland type is designated as Vacant or Disturbed (California Department of Conservation 2025).[1] Vacant or Disturbed Farmland is defined as land that consists of open field areas that do not qualify for an agricultural category, mineral and oil extraction areas, and rural freeway interchanges. The Project would not convert any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use.

b) Would the project conflict with existing zoning for agriculture use, or a Williamson Act contract? *NO IMPACT*

The Project site is zoned M-1, Light Manufacturing that allows for commercial uses. According to the California Department of Conservation California Williamson Act Enrollment Finder, the site is not under a Williamson Act contract (California Department of Conservation 2025). Therefore, the Project would not conflict with agricultural zoning or any Williamson Act contracts.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production? *NO IMPACT*

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use? *NO IMPACT*

Response for c) and d). According to the General Plan EIR, the Tulare County Code does not contain a zoning district for forest land or timberland production and there are no state or national forest lands in immediate vicinity. Consequently, there would be no impacts to forestry resources. The Project is located within the Rural Valley Lands Plan (RVLP) planning area and does not contain any forest land. The Project site is zoned M-1, Light Manufacturing and surrounding buildings have Highway Commercial, Light and Heavy Industrial, and Agricultural designations.

No portion of the Project site or surrounding area is designated or zoned as forest land, timberland, or Timberland Production Zone. As such, the proposed Project would not involve the rezoning of forest land or result in the loss or conversion of forest resources. Therefore, the Project would have no 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)) and the Project would not 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 or conversion of forest land to non-forest use? *NO IMPACT*

The proposed highway-commercial development will be built on a vacant/disrupted field that was formerly used for agricultural purposes. It does not include or adjoin active agricultural or forest lands and

[1] California Important Farmland Finder, California Department of Conservation. Accessed October 2025 at: DLRP Important Farmland Finder

would not create indirect pressures for conversion of such land uses elsewhere. Therefore, the Project would not involve other changes in the existing environment which, due to its location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use.

DRAFT

III. AIR QUALITY

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

The following analysis is based on the information provided in the Tulare County General Plan 2030 Update (General Plan), General Plan 2030 Update Background Report (Background Report), Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (General Plan RDEIR), 2015 Pixley Community Plan and EIR, Air Quality, Green House Gas, and Energy Analysis for Pixley Truck Stop Project, Tulare County, CA (Provost & Pritchard, October 2025, Attachment A) and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: AQ-1.1: *Cooperation with Other Agencies*; AQ-1.3: *Cumulative Air Quality Impacts*; AQ-1.5: *California Environmental Quality Act (CEQA) Compliance;* AQ-2.2 *Indirect Source Review*; AQ-3.4 *Landscape*; AQ-4.1: *Air Pollution Control Technology;* AQ-4.2 *Dust Suppression Measures*; AQ-4.3 *Paving or Treatment of Roadways for Reduced Air Emissions;* AQ-4.5: *Public Awareness*; and AQ-4.6: *Asbestos Airborne Toxic Control and Dust Protection*.

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

LESS THAN SIGNIFICANT IMPACT

According to the air quality report (October 2025)[2], the Project is consistent with the following plans: Air Quality Plan, State or Local Plans for Renewable Energy or Energy Efficiency, Greenhouse Gas Reduction Plans, Dust Control Plan. CEQA Guidelines indicate that a significant impact would occur if the Project would conflict with or obstruct implementation of the applicable air quality plan. Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) indicates that projects that do not exceed SJVAPCD regional criteria pollutant emissions quantitative thresholds would not conflict with or obstruct the applicable air quality plan (AQP).

As discussed in Impact AIR-2 below, emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ associated with the construction and operation of the Project would not exceed the District's significance thresholds. Therefore, the Project would not contribute to air quality violations.

[2] Air Quality, Greenhouse Gas, and Energy Analysis for Pixley Truck Stop Project

The Project's emissions would be less than significant for all pollutants criteria and would not result in inconsistency with the AQP for this criterion. The Project complies with all applicable control measures from the AQP; therefore, the Project is consistent with the AQP, and the impact would be less than significant.

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? *LESS THAN SIGNIFICANT IMPACT*

To result in a less significant impact, the following criteria must be true:

a) Regional Analysis: emissions of nonattainment pollutants must be below the District's regional significance thresholds. This is an approach recommended by the District in its GAMAQI.
b) Summary of Projections: the project must be consistent with current air quality attainment plans including control measures and regulations. This is an approach consistent with Section 15130(b) of the CEQA Guidelines.
c) Cumulative Health Impacts: the project must result in less than significant cumulative health effects from the nonattainment pollutants.

Project-generated emissions are below the SJVAPCD's regional significance thresholds, and the Project is consistent with current air quality attainment plans including control measures and regulations, as depicted below in Table 0-1 and Table 0-2.

With respect to cumulative health impacts, the air basin is in non-attainment for O_3, $PM_{2.5}$, and PM_{10} (state only), which means that the background levels of those pollutants are at times higher than the ambient air quality standards. The air quality standards were set to protect public health, including the health of sensitive individuals (such as children the elderly, and persons with pre-existing respiratory or cardiovascular illnesses [the infirm]). Therefore, when concentration of those pollutants exceeds the standard, it is likely that some sensitive individuals in the population would experience adverse health effects. Since the air basin is already non-attainment, it is considered to have an existing significant cumulative health impact without the Project. The issue is whether the Project's contribution to the existing violation of air quality standards is cumulatively considerable.

SJVAPCD, through its GAMAQI, has determined that projects that exceed regional thresholds would have a cumulatively considerable health impact. As demonstrated in Table 0-1 and Table 0-2, the Project would not exceed the SJVAPCD's significance thresholds and its cumulatively considerable impacts would be less than significant.

Construction Emissions

The results of the modeling are presented in Table 0-1. The emissions that would occur during construction activities were compared with the significance threshold for each pollutant. For assumptions in estimating the emissions, please refer to Attachment A. As shown in Table 0-1, the emissions are below the significance thresholds. Therefore, the emissions would be less than significant on a Project basis.

DRAFT

Table 0-1: Construction Emission Summary, Criteria Air Pollutants

	Emissions (in tons per year)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Maximum Annual Emissions	0.241	1.658	2.037	0.004	0.31	0.168
Significance Threshold	10	10	100	27	15	15
Significant Impact?	No	No	No	No	No	No
Source: Appendix A						

Operational Emissions

Operational emissions occur over the lifetime of the Project and would depend on the source. Sources could include but not be limited to area sources, motor vehicles, or mobile sources. The SJVAPCD considers construction and operational emissions separately when making significance determinations.

The emissions that would occur during operations were also compared with the significance threshold for each pollutant. For assumptions in estimating the emissions, please refer to Appendix A (Attachment A). As shown in Table 0-2, the emissions are below the significance thresholds. Therefore, the emissions would be less than significant on a Project basis.

Table 0-2: Operational Emissions Summary, Criteria Air Pollutants

	Emissions (in tons per year)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Maximum Annual Emissions	0.349	0.253	1.559	0.004	0.31	0.083
Significance Threshold	10	10	100	27	15	15
Significant Impact?	No	No	No	No	No	No
Source: Appendix A						

c) Would the project expose sensitive receptors to substantial pollutant concentrations? *LESS THAN SIGNIFICANT IMPACT*

Sensitive Receptors

Those who are sensitive to air pollution include children, the elderly, and persons with pre-existing respiratory or cardiovascular illness. The District considers a sensitive receptor a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools. The closest offsite sensitive receptors are several rural residences adjacent to the Project site. For criteria pollutants, impacts to receptors are based on emissions during the highest daily emissions during construction and operations. As shown in Table 0-3, emissions generated from construction and operation of the Project are less than SJVAPCD screening criteria. Emissions from construction activities are short-term and temporary. Therefore, this impact would be less than significant.

Localized Pollutant Screening Analysis

Emissions occurring at or near the Project have the potential to create a localized impact, also referred to as an air pollutant hotspot. Localized emissions are considered significant if, when combined with background emissions, they would result in exceedance of any health-based air quality standard. The impact from localized pollutants is based on the impact to the nearest sensitive receptor.

DRAFT

SJVAPCD's GAMAQI includes screening thresholds for identifying projects that need detailed analysis for localized impacts. Projects with on-site emission increases from construction activities or operational activities that exceed the 100 pounds per day screening level of any criteria pollutant after compliance with applicable rules and regulations and implementation of all enforceable mitigation measures would require preparation of an ambient air quality analysis. The criteria pollutants of concern for localized impact in the Air Basin are PM_{10}, $PM_{2.5}$, NO_X, and CO.

The results of the construction and operation screening analysis are presented in Table 0-3. No constituents are shown to exceed 100 pounds per day during project operations; therefore, it is assumed that there would not be a localized impact.

Table 0-3: Maximum Daily Construction and Operational Emissions, Criteria Air Pollutants

Source	Daily Emissions (in Pounds)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Construction	16.68	29.22	29.41	0.06	20.99	11.26
Operations	2.46	2.81	20.96	0.05	4.20	1.10
SJVAPCD Screening Thresholds	100	100	100	100	100	100
Source: Appendix A						

Valley Fever

Valley fever, or coccidioidomycosis, is an infection caused by inhalation of the spores of the fungus, *Coccidioides immitis (C. immitis)*. The spores live in soil and can live for an extended time in harsh environmental conditions. Activities or conditions that increase the amount of fugitive dust contribute to greater exposure, and they include dust storms, grading, and recreational off-road activities.

The Centers for Disease Control and Prevention indicates that 752 of the 8,657 persons (8.7 percent) hospitalized in California between 2000 and 2007 for Valley fever died.[3] California experienced a record number of Valley Fever cases in 2019 with 9,090 new cases. The San Joaquin Valley is considered an endemic area for Valley fever. Within the region, Fresno County reported an infection risk of greater than 39.8 per 100,000.[4]

The distribution of *C. immitis* within endemic areas is not uniform and growth sites are commonly small (a few tens of meters) and widely scattered. Known sites appear to have some ecological factors in common suggesting that certain physical, chemical, and biological conditions are more favorable for *C. immitis growth*. Avoidance, when possible, of sites favorable for the occurrence of *C. immitis* is a prudent risk management strategy. Listed below are ecologic factors and sites favorable for the occurrence of *C. immitis*:

- *Rodent burrows (often a favorable site for C. immitis, perhaps because temperatures are more moderate and humidity higher than on the ground surface)*
- *Old (prehistoric) Indian campsites near fire pits*
- *Areas with sparse vegetation and alkaline soils*
- *Areas with high salinity soils*

[3] (Centers for Disease Control and Prevention 2009)
[4] (California Department of Public Health 2022)

- *Areas adjacent to arroyos (where residual moisture may be available)*
- *Packrat middens*
- *Upper 30 centimeters of the soil horizon, especially in virgin undisturbed soils*
- *Sandy, well-aerated soil with relatively high water-holding capacities*

Sites within endemic areas less favorable for the occurrence of C. immitis include:

- *Cultivated fields*
- *Heavily vegetated areas (e.g. grassy lawns)*
- *Higher elevations (above 7,000 feet)*
- *Areas where commercial fertilizers (e.g. ammonium sulfate) have been applied*
- *Areas that are continually wet*
- *Paved (asphalt or concrete) or oiled areas*
- *Soils containing abundant microorganisms*
- *Heavily urbanized areas where there is little undisturbed virgin soil (USGS 2000)*

The Project site is situated within Tulare County and therefore could have a potential to encounter *C. immitis* during construction. Construction activities would generate fugitive dust that could contain *C. immitis* spores, but through proper mitigation the potential of Valley fever impacts would be less than significant. Subsequent development would be subject to the preparation and implementation of a Dust Control Plan, which would minimize the amount of fugitive dust generated during construction activities by requiring the stabilization of dirt during ground disturbance activities.

During operations, dust emissions are anticipated to be negligible, because most of the Project area would be occupied by buildings, pavement, and landscaped areas. This condition would preclude the possibility of the Project from providing habitat suitable for *C. immitis* spores and for generating fugitive dust that may contribute to Valley fever exposure. Impacts would be less than significant.

Diesel Particulate Matter (DPM)

DPM can be of particular concern as Project construction occurs as it is emitted from the combustion of diesel fuel. Because construction equipment is often used for lengths of time within close proximity to existing sensitive receptors, there is a concern that the increase in DPM emissions could cause localized health risk. Additionally, with projects that involve daily diesel trips, there is a potential for long-term DPM-related health risks. It should be noted that CARB has developed several plans and programs to reduce diesel emissions such as the Diesel Risk Reduction Plan, the Statewide Portable Equipment Registration Program, and the Diesel Off-Road Reporting System.

Gasoline Dispensing Facilities (GDF)

Gasoline dispending facilities (GDFs) are known to emit hazardous air pollutants related to loading, breathing, fueling, accidental spillage, and hose permeation from storage tanks and related dispensing equipment. Known hazardous air pollutants include benzene, ethyl benzene, n-hexane, naphthalene, propylene, toluene, and xylenes. As discussed in Section **Error! Reference source not found.** and Section **Error! Reference source not found.**, the HARP ADMRT was used to identify potential impacts to sensitive receptors. Cancer, chronic, and acute health impacts were found to be less than significant, as shown below in Table 0-4.

Table 0-4: Health Risk of Maximum Exposed Individual Receptor

Source	Health Risk		
	Cancer	Chronic	Acute
Construction	12.13	0.001	0
Operations	7.61	0.065	0.429
Total Exposure	19.74	0.066	0.429
SJVAPCD Significance Thresholds	20	1	1
Exceed Thresholds?	No	No	No
[1] Operations includes Diesel Truck Travel and Gasoline Dispensing Facility Source: Appendix A			

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

Construction of the Project would require the use of diesel-powered off-road construction equipment; however, these emissions would not occur continuously and would cease after construction concludes. The Project would not engage in any of the activities listed in **Error! Reference source not found.**, such as landfills, transfer stations, sewage treatment plants, wastewater pump stations, composting facilities, feed lots, coffee roaster, asphalt batch plants, and rendering plants, among other uses. The Project would therefore have a less significant impact with respect to generation of emissions leading to odors or other adverse or objectionable emissions

DRAFT

IV. BIOLOGICAL RESOURCES

Would the project:		Significant Impact	Less Than Significant Impact With Mitigation	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?	☐	☒	☐	☐
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c)	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

The following analysis is based on the information provided in the Tulare County General Plan 2030 Update (General Plan), General Plan 2030 Update Background Report (Background Report), Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (General Plan RDEIR), 2015 Pixley Community Plan and associated EIR, Biological Resources Evaluation Technical Memorandum (BRE) (Attachment B) and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: ERM-1.1 *Protection of Rare and Endangered Species*; ERM-1.2 *(Development in Environmentally Sensitive Areas;* ERM-1.4 *Protect Riparian Areas*; ERM-1.6 *Management of Wetlands*; ERM-1.7 *Planting of Native Vegetation;* ERM-1.8 *Open Space Buffers;* ERM-1.9: *Coordination of Management on Adjacent Lands;* ERM-1.15 *Minimize Lighting Impacts;* ERM-1.16 *Cooperation with Wildlife Agencies;* ERM-5.8 *Watercourse Development;* ERM-1.16 *Cooperation with Wildlife Agencies;* and ERM-5.8 *Watercourse Development.*

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 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? *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION*

The proposed project involves two adjacent parcels, which will be developed as a highway commercial center. This includes a 20,000-square-foot convenience store, fueling/charging stations for diesel, RVs, and electric vehicles, and a 3,100-square-foot fast-food restaurant with a drive-through, all situated within the Pixley Urban Development Boundary (UDB). The CNDDB search revealed a recorded occurrence of Agelaius tricolor (tricolored blackbird) within the project area, along with two other special-status species within one mile. The Biological Resources Evaluation concludes that, with the implementation of the recommended mitigation measures, including pre-construction surveys, avoidance buffers, employee training, and species-specific actions (BIO-1 through BIO-13) potential direct and indirect impacts on special-status species will be reduced to a Less Than Significant Impact with Mitigation.

b) 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 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? *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION*

The Biological Resources Evaluation identifies an occurrence of Agelaius tricolor (tricolored blackbird) within the project site, as well as two other special-status species within one mile of the project area. However, the report concludes that through the implementation of pre-construction surveys, avoidance buffers, temporal restrictions, and other standard measures recommended by CDFW/USFWS (and County Best Management Practices), any potential impacts will be reduced to a Less Than Significant Impact with Mitigation.

c) Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? *LESS THAN SIGNIFICANT IMPACT*

The National Wetlands Inventory (NWI) identified no riparian areas or federally protected wetlands within the project footprint. The only feature identified in the vicinity is an unnamed irrigation ditch. A jurisdictional delineation will be conducted, and if any jurisdictional features are identified, the project will seek the necessary permits from the US Army Corps of Engineers (USACE) and the Regional Water Quality Control Board (RWQCB). Based on current mapping and field observations, no federally protected wetlands are anticipated to be impacted, and the impact is therefore considered Less Than Significant. Should the delineation reveal jurisdictional waters, appropriate avoidance, minimization, or permitting measures will be implemented.

d) Would the project 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? *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION*

The Project site and surrounding lands are developed or agriculturally altered and are not identified as a mapped movement corridor or important nursery area. The Project would not substantially impede regionally important movement, but pre-construction nesting surveys and temporal avoidance measures (BIO-4 through BIO-7) will be implemented to prevent incidental take of nesting birds and protect any local nesting/nursery use and therefore a the potential impacts will be Less Than Significant Impact with Mitigation.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? *NO IMPACT*

The proposed Project has been evaluated against the Tulare County General Plan and Pixley Community Plan biological policies. The Project is consistent with these policies, provided that the County's standard mitigation

measures and the project-specific mitigation measures (including pre-construction surveys, Best Management Practices, buffers, and avoidance requirements) are implemented. The biological evaluation did not identify any required tree removals that would conflict with a tree preservation ordinance, and as such, No Impact is anticipated.

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? *NO IMPACT*

The Project site is not covered by any applicable Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP). Therefore, the proposed Project will have No Impact in relation to these plans. If further review identifies that a plan applies to the site, the project will coordinate with the plan's governing authority and comply with any additional requirements.

Mitigation Measure(s) See **Mitigation Measures MM BIO-1** through **MM BIO-14** in the Mitigation Monitoring and Reporting Program (MMRP) (Attachment B) in their entirety.

MM BIO -1 (Pre-construction Survey – Plant Species)

MM BIO -2 (Pre-construction Survey – Animal Species)

MM BIO -3 (Employee Education Program)

MM BIO -4 (Pre-construction Survey – Nesting Raptors and Migratory Birds)

MM BIO -5 (Avoidance – Nesting Raptors and Migratory Birds)

MM BIO -6 (Buffers – Nesting Raptors and Migratory Birds)

MM BIO -7 (Compensatory Mitigation – Nesting Raptors and Migratory Birds)

MM BIO -8 (Mortality Reporting – Nesting Raptors and Migratory Birds)

MM BIO -9 (Habitat Assessment – An andrenid bee)

MM BIO -10 (Pre-Construction Surveys – An andrenid bee)

MM BIO -11 (Avoidance – An andrenid bee)

MM BIO -12 (Buffers – An andrenid bee)

MM BIO -13 (Compensatory Mitigation, if Required – An andrenid bee)

MM BIO -14 (Monitoring and Reporting – An andrenid bee)

Therefore, implementation of **Mitigation Measure MM BIO -1** through **MM BIO -14**, as applicable, would result in a Less Than Significant Impact With Mitigation.

DRAFT

V. CULTURAL RESOURCES

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

The following analysis is based on the information provided in the Tulare County General Plan 2030 Update (General Plan), General Plan 2030 Update Background Report (Background Report), Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (General Plan RDEIR), Pixley Community Plan DEIR, Southern San Valley Historical Resources Information Center, and California Native American Heritage Commission Sacred Lands File search (Attachment C), and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: ERM-6.1 *Evaluation of Cultural and Archaeological Resources;* ERM-6.2: *Protection of Resources with Potential State or Federal Designation;* ERM-6.3: *Alteration of Sites with Identified Cultural Resources*; ERM-6.4: *Mitigation;* and ERM-6.7 *Cooperation of Property Owners;* ERM-6.9: *Confidentiality of Archaeological Sites;* ERM-6.10: *Grading Cultural Resources Sites.*

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5? *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION*

A records search was conducted by the author at the California Historical Resources Information Center (CHRIS), Southern San Joaquin Valley Information Center (SSJVIC) located at California State University, Bakersfield. There are no previously recorded historic-period sites that have been recorded within the study area; however, there is one historic-period site that has been identified within one-half mile of the study area. There are no other resources within or in the immediate vicinity of the study area that are listed on the National Register of Historic Places, the California Register of Historic Resources, California Points of Historical Interest, State Historic Landmarks, or the California Inventory of Historic Resources. Six cultural resources surveys have been completed within the study area.

Although no cultural or archaeological resources were identified within the proposed Project area in the records search, there is a possibility that subsurface resources could be uncovered during proposed Project construction-related activities. In the unlikely event that resources are discovered, potentially significant impacts to previously unknown subsurface resources may occur. Based on this analysis, implementation of **Mitigation Measure MM CUL-1** would reduce potential Project-specific impacts related to this Checklist Item to a level considered Less Than Significant Impact.

a) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION*

As previously stated, there was no recorded historic-period sites have been recorded within the study area; one historic-period sites have been identified within one-half mile of the study area within the proposed Project site.

As such, prior to all ground disturbance activities, we recommend that a qualified professional consultant conduct a field survey to determine if cultural resources are present. A list of qualified consultants can be found at www.chrisinfo.org. The letter also recommends that you contact the Native American Heritage Commission in Sacramento. They will provide Project proponent with a current list of Native American individuals/organizations that can assist you with information regarding cultural resources that may not be included in the CHRIS Inventory and that may be of concern to the Native groups in the area. The Commission can consult their "Sacred Lands Inventory" file to determine what sacred resources, if any, exist within this Project area and the way in which these resources might be managed. The Project proponent shall consult with the lead agency (Tulare County RMA) on this Project to determine if any other cultural resource investigation is required.

Although no cultural or archaeological were identified within the proposed Project site in the records search, there is a possibility that subsurface resources could be uncovered during proposed Project construction-related activities. In the unlikely event that resources are discovered, potentially significant impacts to previously unknown subsurface resources may occur. However, implementation of Mitigation Measures MM CUL-1 through MM CUL-3 will reduce potential impacts in the unlikely event of encountering historical or archeological resources to a Less Than Significant Impact with Mitigation.

b) Would the project disturb any human remains, including those interred outside of formal cemeteries? *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION*

As noted in Items a) and b), CHRIS, NAHC, SLF searches, and consultation with Native American tribes did not identify any known remains or formal cemeteries. However unlikely, there is a possibility that subsurface resources could be uncovered during construction-related activities. In such an unlikely event, potentially significant impacts to previously unknown subsurface resources may occur. With the implementation of Mitigation Measure 3.5-3, inadvertent disturbance of any human remains (including those interred outside of formal cemeteries) resulting in the discovery of human remains would require work to halt in the vicinity of a find until the County coroner determines whether the remains are Native American in origin and, if they are, contacting the Native American Heritage Commission.

Mitigation Measure(s) See **Mitigation Measures MM CUL-1** through **MM CUL-3** in Attachment C (in their entirety)

MM CUL-1 Discovery

MM CUL-2 Cessation of Work/Preservation/Treatment Plan/PRC 21074

MM CUL-3 Implementation of Health and Safety Code section 7050.5, CEQA Guidelines Section 15064.5, PRC 5097.98

Therefore, implementation of **Mitigation Measure MM CUL-1** through **MM CUL-3**, as applicable, would result in a **Less Than Significant Impact With Mitigation.**

DRAFT

VI. ENERGY

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

The following analysis is based on the information provided in the Tulare County General Plan 2030 Update (General Plan), General Plan 2030 Update Background Report (Background Report), Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (General Plan RDEIR), Pixley Community Plan DEIR, Technical Report to Support Mitigated Negative Declaration (Willbanks Environmental Consulting, Inc., November 15, 2024, Attachment D), Air Quality, Green House Gas, and Energy Analysis for Pixley Truck Stop Project, Tulare County, CA (Provost & Pritchard, October 2025, Attachment A) and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: ERM-4.1 *Energy Conservation and Efficiency Measures*; ERM-4.2 *Streetscape and Parking Area Improvements for Energy Conservation*; and ERM-4.3 *Local and State Programs*.

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? *LESS THAN SIGNIFICANT IMPACT*

Construction of the proposed travel stop would require temporary use of energy, primarily in the form of petroleum fuels for construction equipment and worker vehicles. These activities would be short-term and consistent with standard construction practices. During long-term operations, the Project would consume energy in the form of electricity, natural gas, and vehicle fuels. Electricity demand would include building operations, fueling system equipment, lighting, HVAC, and the planned 18 electric vehicle (EV) charging stations.

The Project design incorporates modern, energy-efficient building systems and lighting consistent with the 2022 California Building Energy Efficiency Standards (Title 24) and California Green Building Standards Code (CALGreen). Because the Project must comply with state energy efficiency codes and provides EV charging infrastructure that supports transition to lower-emission vehicles, it would not result in wasteful, inefficient, or unnecessary energy consumption.

Construction

Based on CalEEMod estimations within the modeling output files, construction-related vehicle trips would consume an estimated 53,155 gallons of gasoline, natural gas, and diesel combined. Limitations on idling vehicles and equipment and requirements that equipment be properly maintained would result in fuel savings. California Code of Regulations, Title 13, Sections 2449 and 2485, limit idling from both on-road and off-road diesel-powered equipment and are enforced by the ARB. Additionally, given the cost of fuel in California, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction. Due to the temporary nature of construction and the financial incentives for developers and contractors to use energy-consuming resources in an efficient manner, the construction phase of the proposed Project would not result in wasteful, inefficient, and unnecessary consumption of energy.

Operations

Operation of the Project would consume energy as part of building operations and transportation activities. Building operations would involve energy consumption for multiple purposes including, but not limited to, building heating and cooling, refrigeration, lighting, and electronics. Based on the CalEEMod outputs, operations for the Project would result in approximately 742,597 kBTU/year of natural gas and 1,501,032 kWh/year of electricity.

The Project would be designed and constructed in accordance with the County's latest adopted energy efficiency standards, which are based on the California Title 24 energy efficiency standards. Title 24 standards include a broad set of energy conservation requirements that apply to the structural, mechanical, electrical, and plumbing systems in a building. For example, the Title 24 Lighting Power Density requirements define the maximum wattage of lighting that can be used in a building based on its square footage. Title 24 standards are widely regarded as the most advanced energy efficiency standards, would help reduce the amount of energy required for lighting, water heating, and heating and air conditioning in buildings and promote energy conservation. As a result, impacts would be less than significant.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?
LESS THAN SIGNIFICANT IMPACT

The Project is required to comply with applicable State and County energy efficiency requirements, including Title 24, CALGreen, and SB 100, which establishes California's goal of 100% clean electricity by 2045. The incorporation of EV charging stations is consistent with State and County policies encouraging alternative fuel infrastructure. The Project would not conflict with or obstruct the implementation of renewable energy or energy efficiency plans, including the Tulare County General Plan Energy and Air Quality policies and the Tulare County Climate Adaption and Resilience Plan.

DRAFT

VII. GEOLOGY/SOILS

Would the project:	Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
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 No. 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☒	☐
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

The following analysis is based on the information provided in the Tulare County General Plan 2030 Update (General Plan), General Plan 2030 Update Background Report (Background Report), Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (General Plan RDEIR), Pixley Community Plan DEIR, Geotechnical Investigation Report (RMA GeoScience, September 6, 2024, Attachment E), Technical Report to Support Mitigated Negative Declaration (Willbanks Environmental Consulting, Inc., November 15, 2024, Attachment D), Custom Soil Resource Report (United States Department of Agriculture, Natural Resources Conservation Service, Attachment F) and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: HS-1.2 *Development Constraints*; HS-1.4 *Building and Codes*; HS-1.11 *Site Investigations*; HS-5.1 *Development Compliance with Federal, State, and Local Regulations*; HS-5.2 *Development in Floodplain Zones;* and HS-5.9: *Floodplain Development Restrictions*.

a) 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 fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides? *LESS THAN SIGNIFICANT IMPACT*

i) ***Fault Rupture:*** No substantial faults are known to traverse Tulare County according to the Alquist-Priolo Earthquake Fault Zoning Maps and the State of California Department of Conservation.[5] The nearest major fault line, which lies outside of Tulare County, is the San Andreas fault zones; approximately 56 miles southwest of the proposed Project site. According to the Five County Seismic Safety Element (FCSSE), Tulare County is in the V-1 zone. This zone includes most of the eastern San Joaquin Valley and is characterized by a relatively thin section of sedimentary rock overlying a granitic basement. Amplification of shaking that would affect low to medium-rise structures is relatively high, but the distance of the faults that are expected sources of the shaking is sufficiently great that the effects should be minimal. The requirements of Zone II of the Uniform Building Code should be adequate for normal facilities.[6] Therefore, any impact resulting from the rupture of a known earthquake fault would be ***LESS THAN SIGNIFICANT***.

ii) ***Ground Shaking:*** Although no active faults are mapped on or immediately adjacent to the Project site, the proximity of regional fault zones, Tulare County is characterized as Severity Zone "Nil" and "Low" for groundshaking events.[7] Deaggregation of the hazard was performed by using the USGS Interactive Deaggregation website and it was found that all faults within a 20 mile radius are quaternary faults between the ages of 750,000 and 1.6 million years old.[8] Quaternary faults are defined as those faults that have been recognized at the surface and which have evidence of movement in the past 1.6 million years, which is the duration of the Quaternary Period.[9] Due to the distance and types of faults in the proposed Project vicinity, strong ground shaking is unlikely. Therefore, any impact would be ***LESS THAN SIGNIFICANT*.**

iii) ***Ground Failure and Liquefaction:*** The proposed Project site is not located within an area mapped to have potential for soil liquefaction. Liquefaction in soils and sediments occurs during earthquake events, when soil material is transformed from a solid state to a liquid state, generated by an increase in pressure between pore space and soil particles. Earthquake induced liquefaction typically occurs in low-lying areas with soils or sediments composed of unconsolidated, saturated, clay-free sands and silts, but it can also occur in dry, granular soils or saturated soils with partial clay content. Based on available subsurface data, the proposed Project site is underlain by shallow rock that would not liquefy. As such, there would be ***NO IMPACT*** caused by seismic-related ground failure, including liquefaction.

iv) ***Landslides:*** Landslides are not a significant threat as the topography in the proposed Project area is relatively flat. No geologic landforms exist on or near the site that would result in a landslide event. Therefore, there proposed Project would result in ***NO IMPACT***.

b) Would the project result in substantial soil erosion or the loss of topsoil? *LESS THAN SIGNIFICANT IMPACT*

The proposed Project site is primarily flat and as such, soil erosion is not anticipated. As future development occurs, site construction activities would potentially involve earthmoving activities to shape land, trenching for sewer and potable water distribution systems, pouring concrete for sidewalks, curbs, and gutters, and other typical

[5] State of California Department of Conservation, Alquist-Priolo Earthquake Fault Zone Maps, http://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm. Accessed September 2025.
[6] Five County Seismic Safety Element, Summary & Policy Recommendations II, 3 and 15.
[7] Tulare County General Plan 2030 Update, *Part 1-Goals and Policies Report*, 253.
[8] USGS, *Earthquake Hazards Program: Custom Mapping & Analysis Tools*, Geologic Hazards Science Center | U.S. Geological Survey. Accessed September 2025.
[9] USGS. *Earthquake Hazards Program: Glossary*, Hazards | U.S. Geological Survey. Accessed September 2025.

construction-related activities. These activities could expose soils to erosion processes. The extent of erosion would vary depending on slope steepness/stability, vegetation/cover, concentration of runoff, and weather conditions.

To prevent water and wind erosion during the construction-related activities, a Storm Water Pollution Prevention Plan (SWPPP) will be prepared for the Project site as required for all projects that disturb more than one acre in size. As part of the SWPPP, the Project is required to provide erosion control measures to protect the topsoil. Any stockpiled soil would be watered and/or covered to prevent loss due to wind erosion as part of the SWPPP during construction. As a result of these efforts, loss of topsoil and substantial soil erosion during the construction period are not anticipated.

c) Would the project 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? *LESS THAN SIGNIFICANT IMPACT*

Substantial grade change would not occur in the topography to the point where the Project site would be exposed to people or structures to potential substantial adverse effects on, or offsite, such as landslides, lateral spreading, liquefaction or collapse. According to the Five County Seismic Safety Element, the V-1 zone that the proposed Project site inhabits has a low to moderate risk of subsidence.

There is no evidence to suggest that soils located within the Project site are subject to lateral spreading. Subsidence is due to non-compacted, wind-deposited, soils consolidation under load, to oil or gas production or to severe overdraft existing in the Project site.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? *LESS THAN SIGNIFICANT IMPACT*

The United States Department of Agriculture Natural Resources Conservation Service indicates that Akers-Akers saline-Sodic complex and Tagus loam underlie the Project site. These soils have a moderate shrink-swell potential. However, the proposed Project would implement all applicable requirements of the most recent California Building Standards Code. Therefore, the future development of specific developments with the Project site will not expose persons or structures to hazards associated with shrinking and swelling of expansive soils.

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? *LESS THAN SIGNIFICANT IMPACT*

Percolation testing and subsurface exploration were conducted at the Project site to evaluate the feasibility of an Onsite Wastewater Treatment System (OWTS) for the proposed travel stop. Testing identified native soils consisting of sandy silt, silty sand, and sandy clay extending to depths of 21 to 50 feet, with no groundwater encountered within the explored depths. Regional groundwater levels are estimated to occur more than 180 feet below the surface.

Percolation testing yielded rates adequate to support properly designed seepage pits. For the convenience store, a percolation rate of 11.67 minutes/inch was used, requiring two seepage pits at 45 feet depth. The OWTS has been designed in accordance with Tulare County's Local Agency Management Program (LAMP) and the California Plumbing Code and will be reviewed and approved by the County Environmental Health Services Division prior to installation.

Because the soils are capable of supporting an engineered OWTS, and the Project will be required to comply with all County and State regulatory standards for onsite wastewater treatment, the Project would not result in significant impacts related to inadequate soil conditions for wastewater disposal.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION*

According to the Tulare County General Plan RDEIR, previously undiscovered paleontological, archaeological resources and/or human remains could be damaged or inadvertently unearthed during ground-disturbing activities such as grading, trenching, or use of staging areas. Future development would be required to comply with the federal Paleontological Resources Preservation Act that limits the collection of vertebrate fossils and other rare and scientifically significant fossils to qualified researchers who have obtained a permit from the appropriate state or federal agency and the California Public Resources Code Section 5097 that prohibits the removal of any paleontological site or feature from public lands without the permission of the jurisdictional agency. Ground disturbing construction activities (e.g., grading and excavation) associated with potential future development in Tulare County could uncover fossilized remains of organisms from prehistoric environments that have not been recorded.

Because paleontological resources could accidentally be discovered during earth-moving activities, and to be consistent with General Plan ERM Implementation Measure 55B Discovery of Archaeological Resources, implementation of the following mitigation measure would ensure if such resources were found, the impact would be less than significant impact with mitigation.

MM GEO-1: In the event that archeological or paleontological resources are discovered during site excavation, the County shall require that grading and construction work on the Project site be suspended until the significance of the features can be determined by a qualified archaeologist or paleontologist. The County will require that a qualified archeologist/paleontologist make recommendations for measures necessary to protect any site determined to contain or constitute an historical resource, a unique archaeological resource, or a unique paleontological resource or to undertake data recovery, excavation, analysis, and curation of archaeological or paleontological materials. County staff shall consider such recommendations and implement them where they are feasible in light of Project design as previously approved by the County.

DRAFT

VIII. GREENHOUSE GAS EMISSIONS

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

The following analysis is based on the information provided in the Tulare County General Plan 2030 Update (General Plan), General Plan 2030 Update Background Report (Background Report), Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (General Plan RDEIR), Pixley Community Plan DEIR, Air Quality, Green House Gas, and Energy Analysis for Pixley Truck Stop Project, Tulare County, CA (Provost & Pritchard, October 2025, Attachment A) and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: AQ-3.4 *Landscape*; AQ-3.5 *Alternative Energy Design*; and ERM-4.1 *Energy Conservation and Efficiency Measures.*

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? *LESS THAN SIGNIFICANT IMPACT*

Construction

Total GHG emissions generated during all phases of construction were combined and are presented in Table 0-5. The SJVAPCD does not recommend assessing the significance of construction-related emissions. However, other jurisdictions, such as the SCAQMD, have concluded that construction emissions should be included since they may remain in the atmosphere for years after construction is complete. To account for the construction emissions, amortization of the total emissions generated during construction were based on the life of the development (30 years) and added to the operational emissions.

Table 0-5: Construction Emissions, Greenhouse Gases

	$MTCO_2e$
Total Construction Emissions	476.3
Amortized over 30 years	15.88
Notes: Calculation totals use unrounded numbers from CalEEMod output. Source: Appendix A	

Operations

Total GHG emissions generated during operations are presented in Table 0-6. The amortized construction emissions have been added to the operational emissions generated by the Project. Project operations in 2030, which contains the County's GHG Target Goal, would result in approximately 2,479 $MTCO_2e$ resulting from operational activities. This falls below the County's CAP 2030 GHG Target Goal of 4.18 $MTCO_2e$ per capita, resulting in a less than significant impact.

Table 0-6: Operational Emissions, Greenhouse Gases

	$MTCO_2e$
2030 Operational Emissions	2,479
Amortized Construction Emissions	15.88
Threshold of Significance	3,000
Significant Impact?	No
Notes: Calculation totals use unrounded numbers from CalEEMod output. Source: Appendix A	

b) Would the project conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? *LESS THAN SIGNIFICANT IMPACT*

Assembly Bill 32 Scoping Plan

The Scoping Plan contains a variety of strategies to reduce the State's emissions. As shown in Table 0-7, the project is consistent with most of the strategies, while others are not applicable to the project. As discussed earlier, the 2022 Scoping Plan Update strategies primarily rely on increasing the stringency of existing regulations with which the project would continue to comply, support through the project's design, and implementation of the General Plan goals and policies.

Table 0-7: AB 32 Consistency Table

Scoping Plan Strategy	Consistency Finding
Regulation for the California Cap on Greenhouse Gas Emissions and Market- Based Compliance Mechanism October 20, 2015 (CCR 95800)	**Not Applicable.** The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers. However, the regulation indirectly affects people who use the products and services produced by these industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period.
Pavley I 2005 Regulations to Control GHG Emissions from Motor Vehicles 2012 LEV III Amendments to the California Greenhouse Gas and Criteria Pollutant Exhaust and Evaporative Emission Standards	**Consistent.** This measure applies to all new vehicles starting with model year 2012. The Project would not conflict with its implementation as it would apply to all new passenger vehicles purchased in California. Passenger vehicles, model year 2012 and later, associated with construction of the Project would be required to comply with the Pavley emissions standards.
2009 readopted in 2015. Regulations to Achieve Greenhouse Gas Emission	**Consistent.** This measure applies to transportation fuels utilized by vehicles in California. The Project would not conflict with implementation of this measure. Motor vehicles associated

Scoping Plan Strategy	Consistency Finding
Reductions Subarticle 7. Low Carbon Fuel Standard CCR 95480	with construction of the Project would utilize low carbon transportation fuels as required under this measure.
Regional Transportation-Related Greenhouse Gas Targets of SB 375	**Consistent.** A portion of the Project will provide a retail facility in the region that is consistent with the land uses assessed in the 2022 Regional Transportation Plan/Sustainable Communities Strategy (SCS). The Project is not within an SCS priority area and so is not subject to requirements applicable to those areas.
Goods Movement Action Plan of January 2007	**Not applicable.** The Project does not propose any changes to maritime, rail, or intermodal facilities or forms of transportation.
2010 Amendments to the Truck and Bus Regulation, the Drayage Truck Regulation and the Tractor-Trailer Greenhouse Gas Regulation	**Consistent.** This measure applies to medium- and heavy- duty vehicles that operate in the State. The Project would not conflict with implementation of this measure. Medium- and heavy-duty vehicles associated with construction of the project would be required to comply with the requirements of this regulation.
High Speed Rail	**Not applicable.** This is a statewide measure that cannot be implemented by a project applicant or lead agency.
Title 20 Appliance Efficiency Regulation Title 24 Part 6 Energy Efficiency Standards for Residential Buildings Title 24 Part 11 California Green Building Code Standards	**Consistent.** The Project would not conflict with implementation of this measure. The Project will comply with the latest energy efficiency standards and incorporate applicable energy efficiency features designed to reduce project energy consumption.
2010 Regulation to Implement the Renewable Electricity Standard (33% 2020) SB 350 Clean Energy and Pollution Reduction Act of 2015 (50% 2030)	**Consistent.** Pacific Gas & Electric obtained 33 percent of its power supply from renewable sources such as solar and geothermal in 2017, and about 70 percent of the electricity it delivers is carbon-free, including nuclear and large hydroelectric facilities. The owner of the Project would purchase power that consists of a greater percentage of renewable sources and could install renewable solar power systems that will assist the utility in achieving exceeding the renewable mandate.
Million Solar Roofs Program	**Consistent.** This measure is intended to increase solar throughout California by means of a variety of electricity providers and existing solar programs. Projects within the plan area will be able to take advantage of incentives that are in place at the time of construction.
Title 24 Part 11 California Green Building Code Standards, SBX 7-7—The Water Conservation Act of 2009, Model Water Efficient Landscape Ordinance	**Consistent.** The Project will comply with the California Green Building Standards Code, which requires a 20 percent reduction in indoor water use. The Project will also comply with the MWELO as required by the County's development code and water ordinance.
Title 24 Part 11 California Green Building Code Standards	**Consistent.** The State will increase the use of green building practices. The Project would implement required green building strategies through existing regulations that require the Project

Scoping Plan Strategy	Consistency Finding
	to comply with various CALGreen requirements. The Project includes sustainability design features that support the Green Building Strategy.
2010 ARB Mandatory Reporting of Industrial Emissions Regulation	**Not applicable.** The Project would not generate emissions required to be reported under this regulation.
Title 24 Part 11 California Green Building Code Standards AB 341 Statewide 75 Percent Diversion Goal	**Consistent.** The Project would not conflict with implementation of these measures. The Project is required to achieve the recycling mandates via compliance with the CALGreen code. The Project would utilize existing recycling services.
Cap-and-Trade Offset Projects for Sustainable Forests	**Not applicable.** The Project site is not in an area designated where forested lands exist.
ARB Refrigerant Management Program CCR 95380	**Consistent.** Equipment used to condition future buildings would comply with this program.
Cap-and-Trade Offset Projects for Livestock and Rice Cultivation	**Not applicable.** The Project site would be used for non-residential uses. No grazing, feedlot, or rice cultivation activities currently exist onsite or are proposed to be implemented by the project.

Senate Bill 32 Scoping Plan

The 2017 Climate Change Scoping Plan Update (2017 Scoping Plan) includes the strategy that the State intends to pursue to achieve the 2030 targets of Executive Order S-3-05 and SB 32. The 2017 Scoping Plan includes the following summary of its overall strategy for reaching the 2030 target:

- SB 350, which seeks to achieve a 50 percent Renewables Portfolio Standard by 2030, as well as doubling energy efficiency savings by 2030.
- Low Carbon Fuel Standard, which proposed increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).
- Mobile Source Strategy (Cleaner Technology and Fuels Scenario), which sought to maintain existing GHG standards for light- and heavy-duty vehicles, as well as put 4.2 million ZEVs on the roads.
- Sustainable Freight Action Plan - Improve freight system efficiency. - Maximize use of near-zero emission vehicles and equipment powered by renewable energy. - Deploy over 100,000 zero-emission trucks and equipment by 2030.
- Short-Lived Climate Pollutant (SLCP) Reduction Strategy sought to reduce emissions of methane and hydrofluorocarbons, as well as black carbon, by 40 percent and 50 percent below 2013 levels by 2030, respectively.

Table 0-8 provides an analysis of the project's consistency with the 2017 Scoping Plan Update measures.

Table 0-8: SB 32 Consistency Table

Scoping Plan Strategy	Consistency Finding
SB 350 50% Renewable Mandate Utilities subject to the legislation will be required to increase their renewable energy mix from 33% in 2020 to 50% in 2030.	**Not Applicable.** The Project will purchase electricity from a utility subject to the SB 350 Renewable Mandate.
SB 350 Double Building Energy Efficiency by 2030	**Not Applicable.** This measure applies to existing buildings. New structures are required to comply with

Scoping Plan Strategy	Consistency Finding
This is equivalent to a 20 percent reduction from 2014 building energy usage compared to current projected 2030 levels	Title 24 Energy Efficiency Standards that are expected to increase in stringency until buildings achieve zero net energy.
Low Carbon Fuel Standard This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	**Consistent.** Vehicles accessing the Project site will use fuel containing lower carbon content as the fuel standard is implemented. Mobile Source Strategy (Cleaner Technology and Fuels Scenario) Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III program. The strategy includes a goal of having 4.2 million ZEVs on the road by 2030. The 2025 CALGreen Code requires projects to provide EV chargers.
Sustainable Freight Action Plan The plan's target is to improve freight system efficiency 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030. This would be achieved by deploying over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030.	**Consistent.** The Project would develop industrial uses, which would be subject to further regulation that would implement the Sustainable Freight Action Plan. The Project in and of itself would not conflict with this Action Plan.
SLCP Reduction Strategy The strategy requires the reduction of SLCPs by 40 percent from 2013 levels by 2030 and the reduction of black carbon by 50 percent from 2013 levels by 2030.	**Consistent.** The Project will be accessed by vehicles meeting increasingly stringent particulate matter standards that reduce black carbon compared to older trucks.
SB 375 Sustainable Communities Strategies Requires Regional Transportation Plans to include a sustainable communities strategy for reduction of per capita vehicle miles traveled.	**Consistent.** The Project would propose to develop land adjacent to existing urban development, which would assist in the reduction of vehicle miles traveled.
Post-2020 Cap-and-Trade Program The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.	**Consistent.** The post-2020 Cap-and-Trade Program indirectly affects people who use the products and services produced by the regulated industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap- and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the program's first compliance period.

Scoping Plan Strategy	Consistency Finding
Post-2020 Cap-and-Trade Program The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.	**Consistent.** The post-2020 Cap-and-Trade Program indirectly affects people who use the products and services produced by the regulated industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap- and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the program's first compliance period.
Natural and Working Lands Action Plan ARB is working in coordination with several other agencies at the federal, state, and local levels, stakeholders, and with the public, to develop measures as outlined in the Scoping Plan Update and the governor's Executive Order B-30-15 to reduce GHG emissions and to cultivate net carbon sequestration potential for California's natural and working land.	**Not Applicable.** The Project would convert currently used land to a different land use and would cause loss of carbon sequestration.

Accordingly, taking into account the Project's emissions, Project design features, and the progress being made by the State towards reducing emissions in key sectors such as transportation, industry, and electricity, the Project would be consistent with State GHG Plans and would further the State's goals of reducing GHG emissions to 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050, and does not obstruct their attainment. Impacts would be less than significant.

Assembly Bill 1279 Scoping Plan

The Climate Crisis Act (2022), or AB 1279, seeks to achieve net zero greenhouse gas emissions by no later than 2045 and achieve and maintain net negative greenhouse gas emissions after 2045. The bill seeks to ensure that statewide anthropogenic greenhouse gas emissions are reduced to at least 85% below 1990 levels.

Table 0-9 provides an analysis of the Project's consistency with the 2022 Scoping Plan Update measures.

Table 0-9: AB 1279 Consistency Table

Scoping Plan Strategy	Consistency Finding
Reduction in per capita vehicle miles traveled of 30 percent by 2045	**Consistent. The Project is a mixed-use project that proposes both recreational and retail land uses in an area where additional retail development is being experienced. These combined factors would assist in the reduction of per capita vehicle miles traveled.**

Scoping Plan Strategy	Consistency Finding
100% adoption of light-duty ZEVs by 2034	**Consistent. The Project is not of such intensity or magnitude, such that approval could prevent the State achieving this goal.**
Carbon sequestration on majority of petroleum refineries by 2030	**Consistent. The Project would not preclude attainment of this goal as it does not propose to modify a petroleum refinery.**
100% sales of electric HVAC and water heaters for existing buildings	**Consistent. The Project would comply with all applicable building codes. Appliances would be replaced at end-of-life with regulations in-place at that time.**
Reduction in dairy emissions	**Consistent. The Project would not preclude attainment of this goal because it does not propose to construct or modify dairies.**
Carbon Dioxide Removal	**Consistent. The Project does not preclude the construction of carbon removal systems.**

Tulare County Climate Action Plan

The December 2018 Update of the Tulare County Climate Action Plan (CAP) provides consistency finding questions in order to determine if a Project is consistent with the CAP. Table 0-10 provides an analysis of the Project's consistency with the 2018 Climate Action Plan.

Table 0-10: CAP Consistency Table for Nonresidential Projects

Checklist Question	Consistency Finding
1. Is the project consistent with applicable General Plan goals and policies listed in CAP?	**Consistent.** The Project is a retail and recreational project next to the freeway, which would assist in the reduction of per capita vehicle miles traveled.
2. Is the project within a rural community plan or hamlet plan? If yes, is the project consistent with the plan?	**Consistent.** The Project is within the Pixley Community Plan UDB and is consistent with it.
3. Is the project an agriculture oriented commercial or industrial project in a rural area of the County?	**Not Applicable.** The Project is a retail and recreational project located adjacent to a freeway.
4. Is the project a general commercial or industrial project in a rural area of the County? If yes, is the project consistent with the General Plan?	**Not applicable.** The Project is a retail and recreational project located adjacent to a freeway.
5. Is the project required to construct a portion of a bicycle or pedestrian path that is part of an approved bicycle or mobility plan?	**Not Applicable.** No commercial development is proposed at this point in time. Should subsequent development be proposed, the County will assess such development and determine if a bicycle or pedestrian path is warranted.
6. Is the development site appropriate for locating an improved TCAT transit stop?	**Not Applicable.** No commercial development is proposed at this point in time. Should subsequent development be proposed, the County will assess such development and determine if a transit stop or reservation of right-of-way is warranted.
7. Does the site plan have space set aside for recycling bins or compost collection?	**Not Applicable.** No commercial development is proposed at this point in time. Should subsequent development be proposed, the County will assess such development.
9. Does the site include shared EV charging stations per CalGreen requirements?	**Not Applicable.** No commercial site plan is proposed.

Checklist Question	Consistency Finding
10. Does the project comply with Tulare County Solar Roof Ordinance and/or Title 24 solar installation whichever is more stringent?	**Not Applicable.** No commercial development is proposed, but any future development would be required to comply with the applicable California Energy Code.
11. Does the project include drought tolerant landscaping and Irrigation systems meeting County standards and the MWELO.	**Not Applicable.** No commercial development is proposed, but any future development would be required to comply with MWELO.
12. Does the project comply with Title 24 building energy efficiency, lighting, and interior water efficiency requirements?	**Not Applicable.** No commercial development is proposed, but any future development would be required to comply with Title 24.
13. Is the project required to comply with SJVAPCD Rule 9510 Indirect Source Review?	**Not Applicable.** No commercial development is proposed, but subsequent projects of such size that trigger the applicability requirements of Rule 9510 would be required to comply with the Rule.
14. Does the project employ over 100 employees arriving for work during peak traffic hours?	**Not Applicable.** No commercial development is proposed at this time, however future projects that employ over 100 employees would be required to comply with SJVAPCD Rule 9410.

Table 0-11 provides an analysis of the project's consistency with the 2018 CAP's quantification requirements.

Table 0-11: CAP Consistency Table for Projects that Require Quantification

Scoping Plan Strategy	Consistency Finding
1. Is the project inconsistent with one or more checklist questions?	**Consistent.** The Project is consistent with the above-mentioned questions. Quantification is not required under this standard.
2. Does the project contain 500 or more residential units?	**Not Applicable.** The Project proposes no residential land uses. Quantification is not required under this standard.
3. Does the project contain 100,000 square feet or more of retail space.	**Not Applicable.** The Project contains less than 100,000 square feet of retail. Quantification is not required under this standard.
4. Does the project generate over 4,200 average daily trips?	**Not Applicable.** While the Project would generate 8,608 average daily trips, this use has a high rate of pass-by trips due to its highway commercial uses. Quantification is not required under this standard.

In summary, the Project would comply with existing State regulations adopted to achieve the overall GHG emissions reduction goals identified in AB 32, SB 32, AB 1279, and would be consistent with applicable plans and programs designed to reduce GHG emissions. Therefore, the Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. The impact would be less than significant.

IX. HAZARDS AND HAZARDOUS MATERIALS

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

The following analysis is based on the information provided in the Tulare County General Plan 2030 Update (General Plan), General Plan 2030 Update Background Report (Background Report), Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (General Plan RDEIR), Pixley Community Plan DEIR, Technical Report to Support Mitigated Negative Declaration (Willbanks Environmental Consulting, Inc., November 15, 2024, Attachment D), and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: HS-1.2: *Development Constraints;* HS-1.9: *Emergency Access*; HS-4.1 *Hazardous Materials*; HS-4.2 *Establishment of Procedures to Transport Hazardous Waste*; HS-4.4 *Contamination Prevention;* HS-4.5: *Increase Public Awareness*; HS-4.8 *Hazardous Materials Studies*; HS4.9 *Pesticide Use*; HS-6.1 *New Building Fire Hazards;* HS-6.5 *Fire Risk Recommendations*; HS-6.7 *Water Supply System*; PFS-2.3 *Well Testing;* PFS-7.1: *Fire Protection*; PFS-7.2 *Fire Protection Standards;* and PFS-7.5 *Fire Staffing and Response Time Standards.*

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION*

The proposed Travel Center would involve the routine storage, handling, and dispensing of gasoline, diesel fuel, biodiesel blends, diesel exhaust fluid (DEF), lubricants, solvents, cleaning agents, and other petroleum products commonly associated with fueling facilities and minor truck servicing.

Compliance with federal, state, and local regulations governing the transport, storage, use, and disposal of hazardous materials would be required. Specifically:

- Fuel storage and dispensing facilities would incorporate double-walled tanks, secondary containment, and leak detection systems in accordance with local, State Water Resources Control Board, and U.S. Environmental Protection Agency requirements.
- The facility would prepare a Spill Prevention, Control, and Countermeasure (SPCC) Plan under 40 CFR Part 112, addressing spill containment, monitoring, and response measures.
- Hazardous waste generated on-site would be managed as a small-quantity generator under state and federal requirements, ensuring proper collection, storage, and off-site disposal at licensed facilities.

The Project site is not located near sensitive receptors such as schools, nor is it on or adjacent to a listed hazardous materials site. Further, the Tulare County General Plan contains policies requiring safe management of hazardous materials (Policies HS-4.1 through HS-4.9), with which the Project must comply. With incorporation of regulatory compliance measures and standard design features such as secondary containment, leak detection, and implementation of an SPCC Plan, the routine transport, use, and disposal of hazardous materials at the Project site would not create a significant hazard to the public or environment.

b) 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? ***LESS THAN SIGNICANT IMPACT***

The proposed Travel Center would involve the storage and dispensing of large volumes of fuels and petroleum products, including gasoline, diesel, biodiesel blends, and diesel exhaust fluid (DEF). These materials could pose a risk of accidental release through upset conditions such as leaks, spills, or equipment failure. Without controls, such conditions could result in the release of hazardous substances to soil, surface water, or groundwater. However, the Project includes design features and will be required to comply with extensive regulatory requirements intended to prevent and manage such risks, including:

- Installation of double-walled USTs and ASTs with secondary containment and continuous leak-detection monitoring systems, consistent with California Code of Regulations (CCR) Title 23 and federal EPA standards.
- Development of an SPCC Plan (40 CFR Part 112) outlining spill response procedures, inspection and maintenance protocols, and emergency containment measures.
- Implementation of a Hazardous Materials Business Plan (HMBP), including inventory, emergency response procedures, and staff training (California Health and Safety Code §25500 et seq.).
- Enforcement of Tulare County General Plan safety policies (HS-4.1 through HS-4.9), which require safe storage, transport, and disposal of hazardous materials.

With these measures, the risk of uncontrolled release is minimized, and any accidental spill would be contained and managed under regulatory oversight.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? ***NO IMPACT***

The Project site is located on the northwest corner of Road 124 and Avenue 120 in Pixley, adjacent to State Highway 99. There are no existing or proposed schools within one-quarter mile of the Project site. The facility would handle

fuels, lubricants, solvents, and other petroleum products as part of fueling operations. While these materials are regulated as hazardous substances, handling would occur in compliance with state and federal regulations (including tank standards, spill prevention, and hazardous waste management). Because there are no schools in proximity to the site, there would be no exposure of sensitive receptors (such as schoolchildren) to hazardous emissions or materials. The Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

d) Would the project 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? *NO IMPACT*

Government Code Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to compile and maintain a list of hazardous waste facilities, hazardous substance release sites, and other locations where hazardous materials have been released.

A review of the California State Water Resources Control Board's GeoTracker database and other regulatory sources indicates that the Project site is not located on or within one mile of a listed hazardous materials site. The site is not included on the Cortese List of hazardous materials release sites, nor is it identified by the California Department of Toxic Substances Control (DTSC) as a cleanup site or hazardous waste facility.

The southern portion of the property is currently developed as a cotton-ginning facility, which is planned for demolition prior to construction. There is no evidence that this historic use has resulted in soil or groundwater contamination, and the site has not been identified on state or local regulatory databases as requiring investigation or remediation.

Because the Project site is not listed pursuant to Government Code §65962.5 and has no record of hazardous releases requiring regulatory oversight, the Project would not create a significant hazard to the public or the environment due to being located on a contaminated site.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working the project area? *NO IMPACT*

The proposed Project site is located in Pixley, adjacent to State Highway 99 at Avenue 120 and Road 124. The nearest public use airports are:

- Mefford Field Airport (Tulare, CA) – approximately 12 miles northwest of the site.
- Porterville Municipal Airport – approximately 17 miles northeast of the site.
- Visalia Municipal Airport – approximately 24 miles northwest of the site.

The Project site is therefore not located within two miles of a public airport or public use airport and is not within an adopted airport land use plan area.
Because of the distance to the nearest airports, the Project would not expose employees, customers, or nearby residents to safety hazards associated with aircraft operations, nor would it be subject to excessive noise levels from airport activity. The Project would not result in a safety hazard or excessive noise for people working or residing in the Project area related to airport operations.

f) Would the project Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan? *NO IMPACT*

The Project site is located adjacent to State Highway 99 at Avenue 120 and Road 124 in Pixley. Highway 99 and Avenue 120 serve as major regional transportation routes and are identified as part of Tulare County's emergency response and evacuation network.

The proposed Project would redevelop a previously disturbed agricultural/industrial site with a new travel center, including fueling stations, convenience store, truck parking, and ancillary facilities. The Project would not include roadway closures or design features that would conflict with existing circulation patterns. Access would be provided from local roads designed to accommodate commercial truck traffic, with direct proximity to Highway 99.

The Tulare County General Plan and Local Hazard Mitigation Plan provide the framework for emergency response and evacuation. The Project does not propose to alter or restrict designated evacuation routes, nor would it impair the ability of emergency vehicles to access the site or surrounding areas.

Construction activities would require standard temporary traffic management measures (e.g., signage, flagging, lane control) but these would be short-term and regulated through County encroachment permits. The Project would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? *NO IMPACT*

Government Code Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to compile and maintain a list of hazardous waste facilities, hazardous substance release sites, and other locations where hazardous materials have been released.

A review of the California State Water Resources Control Board's **GeoTracker** database and other regulatory sources indicates that the Project site is **not located on or within one mile of a listed hazardous materials site**. The site is not included on the Cortese List of hazardous materials release sites, nor is it identified by the California Department of Toxic Substances Control (DTSC) as a cleanup site or hazardous waste facility.

The southern portion of the property is currently developed as a cotton-ginning facility, which is planned for demolition prior to construction. There is no evidence that this historic use has resulted in soil or groundwater contamination, and the site has not been identified on state or local regulatory databases as requiring investigation or remediation.

Because the project site is not listed pursuant to Government Code §65962.5 and has no record of hazardous releases requiring regulatory oversight, the Project would not create a significant hazard to the public or the environment due to being located on a contaminated site.

Mitigation Measures

MM HAZ-1 – Prior to the commencement of operations, the applicant shall prepare and implement a Hazardous Materials Business Plan (HMBP) and a Spill Prevention, Control, and Countermeasure (SPCC) Plan in accordance with state and federal requirements (California Health and Safety Code §25500 et seq.; 40 CFR Part 112).

MM HAZ-2 – Prior to operation of the Travel Center, the applicant shall prepare and implement an Emergency Response and Spill Contingency Plan in coordination with the Tulare County Environmental Health Division, Tulare County Fire Department, Tulare County Sheriff's Department, CHP and other applicable agencies.

X. HYDROLOGY AND WATER QUALITY

Would the project:	Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☒	☐
i) Result in substantial erosion or siltation on-or off-site?	☐	☐	☒	☐
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or 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?	☐	☐	☒	☐
iv) Impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

The following analysis is based on the information provided in the Tulare County General Plan 2030 Update (General Plan), General Plan 2030 Update Background Report (Background Report), Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (General Plan RDEIR), Pixley Community Plan DEIR, Technical Report to Support Mitigated Negative Declaration (Willbanks Environmental Consulting, Inc., November 15, 2024, Attachment D), and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: WR-1.2: *Groundwater Monitoring*; WR-1.4: *Conversion of Agricultural Water Resources*; WR-2.1 *Protect Water Quality*; WR-2.2 *National Pollutant Discharge Elimination System (NPDES) Enforcement*; WR-2.3 *Best Management Practices (BMPs)*; WR-2.4 *Construction Site Sediment Control*; WR-2.8: *Point Source Control;* WR-2.9 *Private Wells*; WR-3.3 *Adequate Water Availability;* WR-3.5: *Use of Native and Drought Tolerant Landscaping*; WR-3.10: *Diversion of Surface Water*; HS-5.1 *Development Compliance with Federal, State, and Local Regulations*; HS-5.2 *Development in Floodplain Zones;* PFS-4.2 *Site Improvements*; and PFS-4.7: *NPDES Enforcement*.

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

The Project will construct a new gas station, convenience store, a fast-food restaurant with drive-thru, and fueling facilities. An Onsite Wastewater Treatment System (OWTS) has been designed to be consistent with Tulare County's Local Agency Management Program (LAMP) and the California Plumbing Code. Percolation testing indicates adequate capacity for proposed flows, with seepage pits designed to provide required absorption area. Stormwater will be managed through onsite drainage basins and BMPs to prevent runoff of pollutants to surrounding areas. Compliance with County Environmental Health, Regional Water Quality Control Board, and State On-site Wastewater Treatment System (OWTS) requirements will ensure that water quality standards are not violated. Therefore, the impact would be ***LESS THAN SIGNIFICANT.***

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?

Groundwater beneath the site is estimated at approximately 182–195 feet below ground surface. The Project will obtain potable water from existing municipal or private service connections (not onsite wells), and wastewater will be treated through an OWTS system. Because the Project's water demand is relatively small compared to regional agricultural use, and onsite drainage basins will allow infiltration of stormwater, the Project will not substantially deplete or interfere with groundwater recharge. As a result, the impact would be ***LESS THAN SIGNIFICANT.***

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: result in substantial erosion or siltation on-or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; 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 impede or redirect flood flows?

i) ***Erosion and Siltation***

ii) ***Runoff and Flooding***

iii) ***Drainage Systems and Polluted Runoff***

iv) ***Impede or Redirect Flood Flows***

The Project site is currently vacant farmland with no natural streams or drainage courses onsite. Development will introduce impervious surfaces; however, the Project design incorporates onsite drainage basins sized to capture and infiltrate stormwater runoff. The site is in FEMA Flood Zone X, outside the 100-year floodplain (reference Figure 4, Page 6). Drainage improvements will prevent offsite erosion or flooding, and compliance with County stormwater standards will ensure runoff quality is controlled. As such, the impact would be ***LESS THAN SIGNIFICANT.***

d) If in a flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation? ***NO IMPACT***

The site is in FEMA Zone X (outside flood hazard zones – reference Figure 4, Page 6). The site is far from coastal waters or large lakes, so there is no tsunami or seiche risk. Therefore, the Project would not be subject to inundation that could release pollutants. Therefore, the Project would have No Impact on this resource.

e) Would the project conflict with or obstruct implementation of water quality control plan or sustainable groundwater management plan? ***LESS THAN SIGNIFICANT***

DRAFT

The Project will comply with the Central Valley Regional Water Quality Control Board Basin Plan and the Tulare County Groundwater Sustainability Agency's Sustainable Groundwater Management Plan. Wastewater disposal through a properly designed OWTS, combined with stormwater basin infiltration, is consistent with local and state water quality and groundwater management objectives.

DRAFT

XI. LAND USE AND PLANNING

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

The following analysis is based on the information provided in the Tulare County General Plan 2030 Update (General Plan), General Plan 2030 Update Background Report (Background Report), Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (General Plan RDEIR), Pixley Community Plan DEIR, and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: LU-1.3: *Prevent Incompatible Uses;* LU-1.6: *Permitting Procedures and Regulations;* LU-1.7: *Development on Slopes,* LU-1.10: *Roadway Access*; *LU-4.4 Travel Oriented Tourist Commercial Uses*; LU-7.7: *Parking Location;* LU-7.9: *Visual Access;* LU-7.15: *Energy Conservation;* ED-5.4 *Recreational Accommodations*; ED-5-5 *Rivers;* ERM-5.15: *Open Space Preservation;* PF-1.1: *Maintain Urban Edges;* PF-1.5: *Planning Areas;* and PF-2.9: *Zoning in Communities*.

a) Would the project physically divide an established community? *LESS THAN SIGNIFICANT IMPACT*

The Project site is located on the northwest corner of Road 124 and Avenue 120 in Pixley. The surrounding area consists primarily of agricultural lands, an abandoned cotton gin facility to the west, and scattered rural development. The site is not within a residential neighborhood or established community core. Development of the proposed travel stop, which includes a convenience store, fueling stations, and a fast-food restaurant with drive-thru, would occur on a vacant parcel adjacent to existing roadways and would not introduce new barriers such as freeways, rail lines, or other large-scale infrastructure that could physically separate or isolate existing communities. Accordingly, the Project would not physically divide an established community.

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? *LESS THAN SIGNIFICANT IMPACT*

The Project site is designated and zoned for M-1, Light Manufacturing, which allows commercial highway uses, under the Tulare County General Plan and Zoning Ordinance, which anticipates service-oriented commercial development at major transportation corridors. The proposed gas station, convenience store, and fast-food restaurant with drive-thru are consistent with these land use designations. The Project will be required to comply with applicable Tulare County General Plan policies related to air quality, water quality, noise, traffic, and hazardous materials, as well as state and local regulatory programs that avoid or mitigate potential environmental effects. No inconsistencies with an adopted plan, policy, or regulation have been identified.

XII. MINERAL RESOURCES

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

The following analysis is based on the information provided in the Tulare County General Plan 2030 Update (General Plan), General Plan 2030 Update Background Report (Background Report), Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (General Plan RDEIR), Pixley Community Plan DEIR, Technical Report to Support Mitigated Negative Declaration (Willbanks Environmental Consulting, Inc., November 15, 2024, Attachment D), and the resources cited in this analysis.

Tulare County General Plan 2030 Update policies for this resource that apply to this Project include: ERM-5.1 *Mineral Resource Zone Protection*; ERM-5.3 *Mineral Resource Conservation;* ERM-5.*4 Land Use Compatibility;* ERM-5.5 *Review of Development Proposals.*

a) 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? ***NO IMPACT***

The Project site in Pixley is not located within a State-designated Mineral Resource Zone (MRZ-2) or other area identified as containing significant mineral deposits. The site consists of previously disturbed agricultural land and does not contain mineral extraction operations or designated mineral resource lands. Development of the Project would therefore not result in the loss of availability of a known mineral resource of regional or statewide value.

b) 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? ***NO IMPACT***

The Tulare County General Plan and related resource mapping do not identify the Pixley Project site as a locally important mineral resource recovery area. The site has historically been used for agricultural purposes and does not contain mapped or designated mineral recovery sites. As such, Project development would not result in the loss of availability of a locally important mineral resource recovery site.

XIII. NOISE

Would the project result in:		Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a)	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b)	Generation of excessive ground-borne vibration or ground-borne noise levels?	☐	☐	☒	☐
c)	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

The following analysis is based on the information provided in the Tulare County General Plan 2030 Update (General Plan), General Plan 2030 Update Background Report (Background Report), Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (General Plan RDEIR), Pixley Community Plan DEIR, and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: HS-8.1: *Economic Base Protection*; HS-8.2: *Noise Impacted Areas*; HS-8.3 *Noise Sensitive Land Uses;* HS-8.8: *Adjacent Uses*; HS-8.11 *Peak Noise Generators*; HS-8.15 *Noise Buffering*; HS-8.18 *Construction Noise*; and HS-8.19 *Construction Noise Control*.

a) Would the project generate 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? ***LESS THAN SIGNIFICANT IMPACT***

Construction of the proposed travel stop would generate temporary noise from grading, paving, and building activities, as well as construction equipment and vehicle trips. These activities would be short-term and are required to comply with Tulare County Noise Ordinance, which limits construction to daytime hours and sets standards for equipment noise. Compliance with these requirements would ensure temporary construction noise does not exceed applicable standards.

During long-term operations, noise sources would include vehicle trips to and from the fueling facilities, truck idling, car wash equipment, and HVAC/mechanical systems. The Project site is located at the intersection of Avenue 120 and Road 124 (northwest corner), adjacent to existing transportation corridors where ambient noise levels are already elevated due to roadway traffic. Operational noise would be typical of commercial highway service uses and would not exceed Tulare County's exterior noise standards for commercial development.

With compliance to applicable County noise regulations and standard construction limitations, the Project would not result in a substantial temporary or permanent increase in ambient noise levels more than established standards.

b) Would the project generate excessive ground-borne vibration or ground-borne noise levels? ***LESS THAN SIGNIFICANT IMPACT***

Construction of the Project would involve grading, paving, and building activities using typical heavy equipment (e.g., loaders, backhoes, pavers, trucks). These activities may generate short-term ground-borne vibration, but levels would be temporary, localized, and comparable to standard construction projects. No pile driving or other high-vibration activities are proposed.

During long-term operations, the Project would not involve substantial vibration-generating equipment or activities. Fueling, convenience store operations, and vehicle circulation would not create ground-borne vibration at levels that could damage nearby structures or substantially affect sensitive receptors. Therefore, the Project would not generate excessive ground-borne vibration or ground-borne noise levels.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? ***NO IMPACT***

The Project site is in Pixley, Tulare County, and is not within two miles of a public airport, private airstrip, or within the boundaries of an airport land use plan. The nearest public airports are Mefford Field in Tulare and Porterville Municipal Airport, both more than 10 miles from the site. As such, the Project would not expose employees, customers, or visitors to excessive noise from aircraft operations.

DRAFT

XIV. POPULATION AND HOUSING

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

The following analysis is based on the information provided in the Tulare County General Plan 2030 Update (General Plan), General Plan 2030 Update Background Report (Background Report), Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (General Plan RDEIR), Pixley Community Plan DEIR, and the resources cited in this analysis.

Tulare County General Plan 2030 Update policies for this resource that apply to this Project include: LU-1.1 *Smart Growth Principles*; LU-1.2 *Growth Accommodation*; LU-3.1 *Rural Community Centers*.

a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? *NO IMPACT*

The Project proposes development of a commercial travel stop, including fueling facilities, convenience store, and fast-food restaurant with drive-thru. No residential uses are proposed. The Project site is located within the Pixley community, in an area already designated and zoned for commercial highway (M-1) uses under the Tulare County General Plan. The Project would not extend infrastructure beyond the immediate site nor require new urban services that could induce growth beyond what has already been planned.

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? *NO IMPACT*

The Project site is vacant land and does not contain existing housing or residents. Therefore, the Project would not displace housing or people.

XV. PUBLIC SERVICES

Would the project:	Significant Impact	Less Than Significant Impact With Mitigation	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, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	☐	☐	☒	☐
ii) Police protection?	☐	☐	☒	☐
iii) Schools?	☐	☐	☐	☒
iv) Parks?	☐	☐	☐	☒
v) Other public facilities?	☐	☐	☒	☐

The following analysis is based on the information provided in the Tulare County General Plan 2030 Update (General Plan), General Plan 2030 Update Background Report (Background Report), Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (General Plan RDEIR), Pixley Community Plan DEIR, and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: LU-1.10 *Roadway Access*; WR-3.3 *Adequate Water Availability*; PFS-7.1: *Fire Protection*; PFS-7.2 *Fire Protection Standards*; PFS 7-4 *Interagency Fire Protection* Cooperation; PFS-7.5 *Fire Staffing and Response Time Standards*; PFS-7.6 *Provision of Station Facilities and Equipment*; PFS-7.7 *Cost Sharing*; PFS-7.8 *Law Enforcement Staffing Ratios;* PFS-7.9 *Sheriff Response Time*.

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any public services? ***LESS THAN SIGNIFICANT IMPACT***

The proposed travel stop would generate additional demand for fire protection, law enforcement, and emergency response services, as well as minimal demand for solid waste and road maintenance services. The Project site is within the service areas of the Tulare County Fire Department and the Tulare County Sheriff's Office. Given the Project's commercial nature, it would not generate new residential population or school enrollment, and therefore would not increase demand for schools, parks, or other population-based public services.

The Project does not include or require the construction of new or expanded public service facilities. Standard County development fees and service connections would ensure that service levels remain adequate. As such, the Project would not result in the need for new or physically altered governmental facilities that could cause significant environmental impacts.

i) ***Fire Protection:*** The Project site is served by the Tulare County Fire Station 27 located at 200 N. Park Drive in Pixley. The fire station is located approximately 2½ miles south of the Project site. The proposed

commercial travel stop would incrementally increase demand for fire protection services, but it would not require new or expanded fire stations or facilities. The Project will comply with Fire Department requirements for access, hydrants, and fire suppression systems as part of the building permit process.

ii) ***Police Protection:*** Law enforcement services are provided by the Tulare County Sheriff Pixley Substation located at 161 N. Pine Street, approximately 2½ miles south of the Project site. The Project would result in minor increases in calls for service associated with commercial operations but would not create substantial new demand that would necessitate new or physically altered law enforcement facilities.

iii) ***Schools:*** The Project does not include residential uses and would not generate new student enrollment. As such, it would not increase demand for school facilities.

iv) ***Parks:*** The Project would not generate new residents or otherwise create additional demand for park facilities.

v) ***Other Public Facilities:*** The Project would not generate population growth that would create demand for additional public facilities such as libraries. Solid waste services would be provided by Tule Trash Company (11850 Highway 99, Pixley), and capacity exists at regional disposal facilities. No new or expanded public facilities are required.

DRAFT

XVI. RECREATION

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

The following analysis is based on the information provided in the Tulare County General Plan 2030 Update (General Plan), General Plan 2030 Update Background Report (Background Report), Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (General Plan RDEIR), Pixley Community Plan DEIR, and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: ED-5.1: *Development of a Recreation Industry;* ED-5.2 *Agricultural and Ecological Tourism*; ED-5.4 *Recreational Accommodations*; ED-5.5 *Rivers;* ED-5.6: *Lakes* ; ED-5.8: *Foothill Gateways*; ERM-5.8: *Watercourse Development;* ERM-5.9 *Encourage Development of Private Recreation Facilities;* and ERM-5.15: *Open Space Preservation*; HS-9.1: *Healthy Communities*.

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? *NO IMPACT*

The proposed travel stop is a commercial Project and would not generate new residential development or population growth that would increase the use of neighborhood or regional parks. Customers and employees may use nearby parks incidentally, but this would not result in a measurable increase in park use or contribute to the physical deterioration of recreational facilities.

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? *NO IMPACT*

The Project consists of a commercial travel stop with fueling facilities, a convenience store, and a fast-food restaurant with drive-thru. It does not include recreational facilities, nor would it create a demand requiring construction or expansion of recreational facilities. Therefore, no adverse environmental effects associated with recreation facilities would occur.

DRAFT

XVII. TRANSPORTATION

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

The following analysis is based on the information provided in the Tulare County General Plan 2030 Update (General Plan), General Plan 2030 Update Background Report (Background Report), Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (General Plan RDEIR), Pixley Community Plan DEIR, Tulare County SB 743 Guidelines, 2015 Pixley Community Plan and EIR, *Traffic Study – Pixley Truck Stop Avenue 120 & Road 120* (Provost & Pritchard, August 2025, Attachment G) and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: TC-1.3: *Regional Coordination*; TC-1.8: *Truck Site and Access Circulation*; AQ-3.3: *Street Design Supportive of Alternative Modes;* LU-1.10 *Roadway Access*; LU-4.4 *Travel Oriented Tourist Commercial Uses*.

a) Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Transit Facilities. Public transit service in Pixley is currently served by Tulare County Regional Transit Agency (TCTRA). The nearest transit stop is located approximately 2¾ miles south of the Project site at the Pixley Medical Center, which is located at 205 Davis Avenue. Route C20 South County links the Tulare Transit Center to the north of Pixley to Delano in the south, with stops in between. In addition, TCRTA operates a demand-response service. This is a flexible public-transport service that runs only where riders request it, rather than a fixed route or fixed schedule. Employees generated by the Project may choose to use transit services if it were convenient to/from the site.

It is unlikely that the proposed Project will employ a sufficient number of staff to support TCRTA's consideration of requiring an additional bus stop near the Project site. Additionally, there are no transit stop improvements planned as part of the Project. Regardless, the Project is consistent with the County's policies promoting transit use and, therefore, would have no impact.

Roadway Facilities. Access to the site would be provided from Avenue 120 and Road 124 via State Route 99 and surrounding roadways. In accordance with *County of Tulare SB 743 Guidelines*, a traffic impact analysis was prepared because the Project would generate more than 100 peak-hour trips. The analysis concludes that the Project would result in excessive delay at the unsignalized intersections at Avenue 120/State Route 99 SB ramps and at Avenue 120/Drive 122B (State Route 99 NB on/off ramps). The *Traffic Study* recommended participating with pro-rata share

of 60.85% and 72.86%, respectively, for signalizing the Caltrans operated intersections. It was determined that these traffic signals needed to be in place by 2045.

In addition, Tulare County RMA Public Works Division reviewed the *Traffic Study* and indicated that the ultimate improvements at Road 124/Ave 120 includes left turn lanes on all approaches with signalization and ensure adequate right of way is set aside along the frontage to allow for this. Due to the amount of truck traffic that would be anticipated, Public Works requires that a center two way left turn lane along Road 124 n/o Avenue 120 be developed. The important thing here is to make sure adequate right of way along both Avenue 120 and Road 124 frontage is dedicated to allow for future improvements.

b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)? *LESS THAN SIGNIFICANT IMPACT*

CEQA Guidelines Section 15064.3 establishes vehicle miles traveled (VMT) as the primary metric for analyzing transportation impacts under CEQA. A VMT analysis was completed for the proposed Pixley Travel Stop using the County of Tulare SB 743 Guidelines. These guidelines include screening criteria that allow certain "locally-serving" retail projects in unincorporated areas to be presumed less than significant for VMT purposes.

The Project qualifies as a locally-serving retail use and therefore meets the County's screening criteria. As such, the Project is exempt from a detailed VMT analysis. The *Traffic Study* concluded that the Project would not conflict with CEQA Guidelines Section 15064.3(b) and that VMT impacts would be less than significant

c) Would the project substantially increase hazards due to a geometric design feature or incompatible uses? *LESS THAN SIGNIFICANT IMPACT*

The Project includes two access driveways on Avenue 120 and Road 124. The *Traffic Study* reviewed sight distance and turning movements at these driveways and concluded that adequate sight distance would be provided, consistent with County standards. Onsite circulation has been designed to safely accommodate both passenger vehicles and large trucks, including designated truck fueling lanes and a fast-food restaurant with drive-thru. With compliance with Caltrans and County design requirements, the Project would not increase hazards due to design features or incompatible uses.

d) Would the project result in inadequate emergency access? *LESS THAN SIGNIFICANT IMPACT*

Emergency vehicle access will be provided from Avenue 120 and Road 124, with circulation designed to accommodate large fire apparatus. The Tulare County Fire Department will review Project site plans to confirm adequate access, turning radii, and hydrant placement during the building permit process. No roadway closures or changes are proposed that would impede emergency access in the surrounding area.

Mitigation Measures

MM TR-1 – Participate with pro-rata share of 60.85% and 72.86% at Avenue 120/State Route 99 SB ramps and at Avenue 120/Drive 122B (State Route 99 NB on/off ramps), respectively, for construction of traffic signals.

MM TR-2 – Construct left turn lanes on all approaches of the Avenue 120/Road 124 intersection and preserve right-of-way for future construction of a traffic signal.

MM TR-3 – Construct two-way left turn-land along the southern frontage of property between County Drive 122B and Road 124.

XVIII. TRIBAL CULTURAL RESOURCES

Would the project:	Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
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)?	☐	☒	☐	☐
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, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☒	☐	☐

The following analysis is based on the information provided in the Tulare County General Plan 2030 Update (General Plan), General Plan 2030 Update Background Report (Background Report), Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (General Plan RDEIR), Pixley Community Plan DEIR, Southern San Valley Historical Resources Information Center, and California Native American Heritage Commission Sacred Lands File search (Attachment C), and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: ERM-6.1 *Evaluation of Cultural and Archaeological Resources;* ERM-6.3: *Alteration of Sites with Identified Cultural Resources*; ERM-6.4: *Mitigation*; ERM-6.7 *Cooperation of Property Owners;* ERM-6.8 *Solicit Input from Local Native Americans;* ERM-6.9: *Confidentiality of Archaeological Sites*; and ERM-6.10: *Grading Cultural Resources Sites*.

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources? *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION*

As noted previously, information provided by the Southern San Valley Historical Resources Information Center, at California State University, Bakersfield (Center) and the California Native American Heritage Commission Sacred Lands File search (included in Attachment "C" of this document) were used as the basis for determining that this proposed Project would result in a ***LESS THAN SIGNIFICANT IMPACT WITH MITIGATION***.

b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource that is determined by the lead agency to be significant or have significance to a Native American Tribe? *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION*

Although no cultural or archaeological were identified within the proposed Project area in the records search, there is a possibility that subsurface resources could be uncovered during proposed Project construction-related activities. In the unlikely event that resources are discovered, potentially significant impacts to previously unknown

subsurface resources may occur. To date, RMA has received one (1) response(s) from the tribes that were notified in compliance with AB 52 requirements through a list of potentially affected tribes provided by the NAHC for the proposed Project. As such, it is not anticipated that Native American tribal cultural resources or remains will be found within the proposed Project area. The responses indicated they had no comments. However, **MM TRI-1** and **MM TRI-2** are included in the unlikely event that Native American remains or tribal cultural resources are unearthed during any ground disturbance activities. **MM TRI-1** and **MM TRI-2** would be implemented to reduce the potential level of impact to this resource as less than significant for resources listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or to a resource consider significant to a California Native American tribe. Therefore, the proposed UDB Modification Project would result in a **Less Than Significant Impact With Mitigation** to Tribal Cultural Resources.

Mitigation Measures

MM TRI-1 In the event that historical, archaeological or paleontological resources are discovered during site excavation, the County shall require that grading and construction work on the Project site be immediately suspended until the significance of the features can be determined by a qualified archaeologist or paleontologist. In this event, the property owner shall retain a qualified archaeologist/paleontologist to provide recommendations for measures necessary to protect any site determined to contain or constitute an historical resource, a unique archaeological resource, or a unique paleontological resource or to undertake data recover, excavation analysis, and curation of archaeological or paleontological materials. County staff shall consider such recommendations and implement them where they are feasible in light of Project design as previously approved by the County.

MM TRI-2 Consistent with Section 7050.5 of the California Health and Safety Code and (CEQA Guidelines) Section 15064.5, if human remains of Native American origin are discovered during project construction, it is necessary to comply with State laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (Public Resources Code Sec. 5097). In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:

1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

a. The Tulare County Coroner/Sheriff must be contacted to determine that no investigation of the cause of death is required; and

b. If the coroner determines the remains to be Native American:

i. The coroner shall contact the Native American Heritage Commission within 24 hours.

ii. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.

iii. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code section 5097.98, or

2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.

a. The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.

b. The descendant fails to make a recommendation; or

c. The landowner or his authorized representative rejects the recommendation of the descendent.

XIX. UTILITIES AND SERVICE SYSTEMS

Would the project:		Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a)	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b)	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d)	Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e)	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

The following analysis is based on the information provided in the Tulare County General Plan 2030 Update (General Plan), General Plan 2030 Update Background Report (Background Report), Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (General Plan RDEIR), Tulare County Housing Element Action Program 9, Tulare County SB 522 Drought and Water Shortage Risk analysis and Response Plan, Pixley Community Plan DEIR, Technical Report to Support Mitigated Negative Declaration (Willbanks Environmental Consulting, Inc., November 15, 2024, Attachment D), and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: PFS-1.4: *Standards of Approval*; PFS-2.2 *Adequate Systems*; PFS-2.3 *Well Testing*; PFS-2.5 *New Systems or Individual Wells*; PFS-3.1 *Private Sewage Disposal Standards*; PFS-3.4 *Alternative Rural Wastewater Systems*; PFS-4.2 *Site Improvements*; PFS-4.7: *NPDES Enforcement*; PFS-5.6 *Ensure Capacity;* PFS-5.7 *Provisions for Solid Waste Storage, Handling, and Collection*; PFS-5.8: *Hazardous Waste Disposal Capabilities*; and WR-2.9 *Private Wells.*

a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? *LESS THAN SIGNIFICANT IMPACT*

The proposed Project will not connect to municipal water or sewer systems. Potable and fire-suppression water will be supplied by new on-site groundwater well permitted as a Public Water System (PWS) under State and County requirements. Wastewater from restrooms, the convenience store, and the fast-food restaurant with drive-thru will be treated and disposed of via multiple onsite septic systems with oil-water separators and seepage pits,

designed in compliance with Tulare County standards and the State Water Resources Control Board's Onsite Wastewater Treatment Systems (OWTS) Policy. If wastewater flows exceed 10,000 gallons per day, the Project will be subject to Waste Discharge Requirements (WDRs) by the Regional Water Quality Control Board.

Stormwater runoff will be collected and infiltrated onsite through two detention basins designed to meet County and State stormwater requirements. Electric power, natural gas, and telecommunications services are available in the Project vicinity. The applicant will coordinate with the local electricity provider to ensure sufficient capacity is available, particularly for the planned 18 EV charging stations. No off-site expansions of electric, gas, or telecommunications transmission facilities are anticipated.

Because the Project will rely on onsite systems and existing utility connections rather than requiring new or expanded off-site infrastructure, it would not result in substantial adverse environmental effects from construction or relocation of utility facilities.

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? *LESS THAN SIGNIFICANT IMPACT*

The Project will not connect to an existing municipal water provider. Instead, potable and fire-suppression water will be supplied by a new on-site groundwater well, which will be permitted and operated as a Public Water System (PWS) under the jurisdiction of the State Water Resources Control Board, Division of Drinking Water, and Tulare County Environmental Health. Groundwater levels in the Project area are generally more than 180 feet below ground surface, and the well will be designed to provide sufficient capacity for domestic and fire flow demands of the travel stop.

As part of the PWS permitting process, the applicant will be required to demonstrate that the well can reliably serve the Project under normal, single-dry, and multiple-dry year conditions, consistent with State water supply planning requirements. The Project is not of a scale that would measurably affect regional groundwater sustainability. Additionally, the site lies within a groundwater sustainability agency (GSA) boundary under the Sustainable Groundwater Management Act (SGMA), which manages basin-wide pumping and recharge.

With compliance to PWS permitting requirements and SGMA oversight, the Project would have sufficient water supplies available to meet demand during normal, dry, and multiple dry years.

c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? *LESS THAN SIGNIFICANT IMPACT*

The Project will not connect to a municipal wastewater treatment provider. Instead, all wastewater generated by the convenience store, fueling facilities, restrooms, and fast-food restaurant with drive-thru will be treated and disposed of through an Onsite Wastewater Treatment System (OWTS) designed specifically for the Project. Percolation testing demonstrated that the site's soils are capable of supporting seepage pits at depths of 35–50 feet.

The OWTS design includes:

- Two (2) 80,000-gallon fire-water tanks
- A 3,000-gallon tank and 2 seepage pits for the convenience store

The total wastewater generation of approximately 4,000 gallons per day can be accommodated by the proposed OWTS, consistent with the Tulare County Local Agency Management Program (LAMP) and the California Plumbing

Code. If flows exceed 10,000 gpd, the system would be subject to Waste Discharge Requirements (WDRs) issued by the Regional Water Quality Control Board, which ensures adequate treatment capacity and groundwater protection.

Since wastewater will be handled entirely through onsite facilities rather than by a public treatment provider, and the design demonstrates adequate capacity, the Project would not result in a determination of inadequate wastewater treatment capacity.

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? *LESS THAN SIGNIFICANT IMPACT*

The proposed travel stop would generate solid waste typical of a commercial fueling facility, convenience store, and fast-food restaurant with drive-thru. Solid waste collection and disposal services in Pixley are provided under franchise agreement by Tule Trash Company, which transports waste to County-approved disposal facilities. Tulare County's regional landfills, including the Woodville Landfill and other permitted facilities, have sufficient capacity to accommodate the relatively small amount of solid waste generated by the Project. In 2021, the Tulare County Board of Supervisors approved a major expansion Project for the Woodville Landfill, expanding the area from 160 to 400 acres.

The Project will also be required to comply with State solid waste reduction and recycling requirements, including Assembly Bill 341 (Mandatory Commercial Recycling) and Senate Bill 1383 (Short-Lived Climate Pollutants: Organic Waste Methane Emissions Reductions), which mandate recycling and organics diversion programs. Given the available landfill capacity, the local solid waste provider's franchise authority, and compliance with State diversion requirements, the Project would not generate solid waste more than local infrastructure capacity nor impair attainment of waste reduction goals.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste? *LESS THAN SIGNIFICANT IMPACT*

The proposed Project would be required to comply with all applicable solid waste regulations at the federal, state, and local levels. At the state level, this includes Assembly Bill 341 (Mandatory Commercial Recycling) and Senate Bill 1383 (Short-Lived Climate Pollutants: Organic Waste Methane Emissions Reductions), which require commercial recycling and diversion of organic materials. Locally, solid waste service would be provided by Tule Trash Company under a County franchise agreement, which ensures collection, recycling, and disposal in compliance with Tulare County and State standards.

Through participation in these programs and compliance with all regulatory requirements, the Project would properly manage and reduce solid waste. Therefore, the Project would comply with applicable solid waste statutes and regulations.

DRAFT

XX. WILDFIRES

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

The following analysis is based on the information provided in the Tulare County General Plan 2030 Update (General Plan), General Plan 2030 Update Background Report (Background Report), Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (General Plan RDEIR), Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan (MJLHMP), Pixley Community Plan DEIR, and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies could apply to this Project if it were located on sloped areas, fire hazards areas, lands susceptible to landslides, subsidence/settlement, contamination, and/or flooding; potential for wildland fires; etc.: ERM-7.3 *Protection of Soils on Slopes*; HS-1.5 *Hazard Awareness and Public Education*; HS-1.11 *Site Investigations*; HS-6.1 *New Building Fire Hazards*; HS-6.2 *Development in Fire Hazard Zones*; HS-6.3 *Consultation with Fire Service Districts*; HS-6.5 *Fire Risk Recommendations*; HS-6.6 *Wildland Fire Management Plans*; HS-6.13 *Restoration of Disturbed Land*; HS-6.14 *Coordination with Cities*; and HS-6.15 *Coordination of Fuel Hazards on Public Lands*.

a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?
LESS THAN SIGNIFICANT IMPACT

The Project site is located on the valley floor in Pixley, an area not designated as a State Responsibility Area (SRA) and not mapped within a Very High Fire Hazard Severity Zone (VHFHSZ). The Project proposes commercial development (a travel stop) adjacent to existing public roadways (Avenue 120 and Road 124), which would remain fully accessible during both construction and operation. The Project does not propose street closures, barriers, or other changes that would interfere with emergency evacuation or emergency response routes.

Any temporary lane closures during construction would be managed under a County-approved traffic control plan to maintain emergency access. The Tulare County Fire Department will review site plans to ensure adequate emergency circulation, driveway widths, and fire apparatus turning radii. Therefore, the Project would not substantially impair an adopted emergency response plan or emergency evacuation plan.

b) 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? *NO IMPACT*

The Project site is located on flat valley-floor terrain in Pixley, surrounded by agricultural and developed lands. It is not within a State Responsibility Area (SRA) or mapped as a Very High Fire Hazard Severity Zone (VHFHSZ). The site lacks steep slopes, dense vegetation, or other conditions that would exacerbate wildfire risk. Consequently, the Project would not expose occupants to increased wildfire risk or pollutant concentrations from wildfire smoke.

c) Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? *LESS THAN SIGNIFICANT IMPACT*

The Project would construct internal driveways, onsite circulation, and utility connections, but these are designed for commercial service and do not include fuel breaks, high-voltage transmission lines, or other features that could increase wildfire risk. Water for fire suppression will be supplied by a new onsite well and storage system, to be reviewed and approved by the Tulare County Fire Department. These improvements will enhance fire safety without exacerbating wildfire risks.

d) 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? *NO IMPACT*

The Project site is located in a flat valley-floor area, not within or near hillside terrain. There are no steep slopes on the site that could be subject to post-fire landslides or slope instability. The Project includes onsite stormwater detention basins that will manage runoff and avoid drainage changes that could contribute to downstream flooding. Therefore, the Project would not expose people or structures to risks associated with post-fire flooding or landslides.

DRAFT

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

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

The following analysis is based on the information provided in assessments provided in Checklist Items I through XX.

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal species, or eliminate important examples of the major periods of California history or prehistory? ***LESS THAN SIGNIFICANT IMPACT WITH MITIGATION MEASURES***

The proposed Pixley Travel Center would redevelop a previously disturbed and partially developed parcel located adjacent to State Highway 99 in Pixley, Tulare County. The Project site is currently characterized by disturbed ground, compacted soils, and existing agricultural/industrial development (a former cotton-ginning facility), with minimal remaining natural vegetation. The surrounding area consists primarily of agricultural fields, transportation corridors, and light industrial uses.

Because the project site is highly disturbed and lacks native habitat, it does not provide suitable conditions to support special-status plants or wildlife species. No riparian habitat, wetlands, or other sensitive natural communities occur within or adjacent to the site. Any wildlife species present would consist of common species adapted to disturbed and agricultural environments.

Implementation of the project would not substantially degrade the overall quality of the environment or reduce wildlife habitat. Standard construction best management practices (BMPs), such as dust control and stormwater pollution prevention (SWPPP) measures, would minimize potential indirect impacts to air and water quality.

DRAFT

The Project site is also not known to contain any significant cultural or historical resources. Previous agricultural and industrial grading and development have substantially disturbed the upper soil horizons. No unique archaeological, paleontological, or historical resources have been recorded within the Project boundaries. In the unlikely event that cultural resources or human remains are discovered during construction, work would halt and procedures consistent with CEQA Guidelines §15064.5 and Health and Safety Code §7050.5 would be followed, including notification of the County Sheriff/Coroner and consultation with a qualified archaeologist or the Native American Heritage Commission (NAHC), as appropriate.

Based on existing site conditions, prior disturbance, and the absence of sensitive biological or cultural resources, the proposed Project would not have the potential to substantially degrade the quality of the environment, reduce fish or wildlife habitat, or eliminate important examples of California history or prehistory.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

The proposed Pixley Travel Center would redevelop a previously disturbed, partially industrial and agricultural site located adjacent to State Highway 99 in Pixley. The Project would include a travel center with fueling stations, convenience store, truck parking, EV charging stations, a fast-food restaurant with drive-thru, and ancillary facilities.

Potential impacts associated with the project have been analyzed in the environmental checklist prepared pursuant to the California Environmental Quality Act (CEQA). As evaluated throughout the Initial Study and supported by technical documentation, all potential environmental impacts—such as air quality, greenhouse gas emissions, water quality, traffic, noise, and hazardous materials—have been determined to be less than significant or less than significant with mitigation incorporated.

The Project would not result in the loss of sensitive habitat or agricultural land conversion beyond the project footprint, nor would it induce unplanned growth inconsistent with the Tulare County General Plan or Pixley Community Plan. All improvements would occur within the limits of previously disturbed land adjacent to existing development and infrastructure.

Given the site's location, small scale relative to regional development, and incorporation of mitigation measures addressing air quality, hydrology, traffic, and hazards, the incremental contribution of the Pixley Travel Center to cumulative environmental conditions (including groundwater use, transportation emissions, and regional growth) would not be cumulatively considerable.

When viewed in connection with past, present, and reasonably foreseeable future projects in the Pixley area and along the Highway 99 corridor, the incremental environmental effects of the proposed Project would not be cumulatively considerable.

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

The proposed Pixley Travel Center would redevelop a previously disturbed site adjacent to State Highway 99 in Pixley for use as a regional travel center with fuel stations, truck and vehicle parking, EV charging facilities, a fast-food restaurant with drive-thru, and a convenience store. Potential environmental effects related to air emissions, noise, hazardous materials handling, water quality, and traffic have been evaluated consistent with Appendix G of the CEQA Guidelines.

The analysis determined that **no environmental effects of the project would cause substantial adverse effects on human beings**, either directly or indirectly, once the project incorporates standard regulatory compliance measures and mitigation. Specifically:

- **Air Quality and Greenhouse Gas Emissions:** Construction and operational emissions would comply with San Joaquin Valley Air Pollution Control District (SJVAPCD) standards and would not exceed significance thresholds.
- **Noise:** Operational noise from fueling, parking, and circulation areas would be typical of a commercial highway facility and would not exceed applicable Tulare County noise standards at the nearest sensitive receptors.
- **Hazardous Materials:** Compliance with local, state, and federal hazardous materials regulations, and implementation of Mitigation Measures **HAZ-1** and **HAZ-2**, would ensure that risks associated with fuel storage and dispensing remain below significance thresholds.
- **Hydrology and Water Quality:** Project drainage and wastewater systems would be designed per County and Regional Water Quality Control Board standards, avoiding contamination or flooding hazards.
- **Traffic and Safety:** Project access from Avenue 120 and Road 124 would be designed per County and Caltrans standards to maintain safe traffic operations and emergency access. The Project will contribute to Caltrans' pro-rata share for traffic signals and will construct a two-way center turn-lane along the southern frontage of the Project (Avenue 120).

With implementation of the identified mitigation measures and adherence to existing regulations, the Project would not expose the public to new or unusual risks related to pollution, hazardous materials, flooding, traffic hazards, or other environmental effects. The proposed Project would not cause substantial adverse effects on human beings, directly or indirectly.

DRAFT

REFERENCES

California Department of Conservation. California Geological Survey (CGS). Regulatory Maps Portal. Website http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps. Accessed December 2024.

California Department of Conservation, Division of Land Resource Protection (DLRP). Farmland Mapping & Monitoring Program (FMMP), California Farmland Conversion Report 2014-2016. Website: https://www.conservation.ca.gov/dlrp/fmmp/Pages/2014-2016_Farmland_Conversion_Report.aspx. Accessed December 2024.

California Department of Conservation, Division of Land Resource Protection (DLRP). Farmland Mapping & Monitoring Program (FMMP), California Important Farmland Finder. Interactive Map. Website: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed December 2024.

California Department of Conservation, Division of Land Resource Protection (DLRP). Farmland Mapping & Monitoring Program (FMMP), Farmland of Local Importance. Farmland of Local Importance (2018) Website: https://www.conservation.ca.gov/dlrp/fmmp/Documents/Farmland_of_Local_Importance_2018.pdf. Accessed December 2024.

California Department of Conservation, Division of Land Resource Protection (DLRP). Farmland Mapping & Monitoring Program (FMMP), Prime and Statewide Soil List. Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance, Tulare County, Updated March 1, 2021. Website: https://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp/pubs/soils/Tulare_gSSURGO.pdf. Accessed December 2024.

California Department of Conservation, Division of Land Resource Protection (DLRP). Farmland Mapping & Monitoring Program (FMMP), Tulare County Important Farmland Data Availability, Historic Land Use Conversion 1986-Present. https://www.conservation.ca.gov/dlrp/fmmp/Pages/Tulare.aspx. Accessed December 2024. (This spreadsheet is available in RMA Environmental Planning's "CEQA Resources" folder, subfolder "By Resource", subfolder "agriculture & forestry", subfolder "FMMP Land Use Conversion Tables and Reports" – dated May 3, 2021)

California Department of Conservation, Division of Land Resource Protection (DLRP). Farmland Mapping & Monitoring Program (FMMP), Tulare County Important Farmland Data Availability, Important Farmland Maps as PDF, Tulare County Important Farmland 2018. https://www.conservation.ca.gov/dlrp/fmmp/Pages/Tulare.aspx. Accessed December 2024. (This spreadsheet is available in RMA Environmental Planning's "CEQA Resources" folder, subfolder "By Resource", subfolder "agriculture & forestry", subfolder "FMMP Maps" – dated July 21, 2022)

California Department of Conservation. Division of Mine Reclamation. Website: https://www.conservation.ca.gov/dmr/ Accessed December 2024.

California Department of Conservation. Division of Mine Reclamation. Mines Online. Website: https://maps.conservation.ca.gov/mol/index.html. Accessed December 2024.

California Department of Conservation, Division of Oil, Gas, and Geothermal Resources. Oil, Gas, and Geothermal Fields in California, 2001. Map accessed on the University of California Santa Barbara Website: https://alexandria.ucsb.edu/downloads/1544bq593. Accessed December 2024.

California Department of Conservation, Geologic Energy Management Division (CalGEM). Well Finder. Website: https://www.conservation.ca.gov/calgem/Pages/Wellfinder.aspx . December 2024.

California Department of Forestry and Fire Protection (CAL FIRE). Fire and Resource Assessment Program (FRAP). Fire Hazard Severity Zones in LRA. October 5, 2007. Website:. Fire Hazard Severity Zones in State Responsibility Area - State of California Accessed December 2024.

California Department of Toxic Substances Control (DTSC). *EnviroStor.* Websites: https://www.envirostor.dtsc.ca.gov/public/. Accessed December 2024.

California Department of Toxic Substances Control (DTSC). DTSC's Hazardous Waste and Substances Sites List – Site Cleanup (Cortese List). Website: EnviroStor. Accessed December 2024.

California Department of Toxic Substances Control (DTSC). Site Cleanup. Hazardous Waste and Substances Sites List. Website: https://www.envirostor.dtsc.ca.gov/public/search.asp?cmd=search&reporttype=CORTESE&site_type=CSITES%2COPEN%2CFUDS%2CCLOSE&status=ACT%2CBKLG%2CCOM&reporttitle=HAZARDOUS%20WASTE%20AND%20SUBSTANCES%20SITE%20LIST. Accessed December 2024..

California Department of Transportation (Caltrans) Transportation Impact Study Guide. May 20, 2020. Website: https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-05-20-approved-vmt-focused-tisg-a11y.pdf. Accessed December 2024.

California Department of Transportation (Caltrans). Transportation Planning. Website: https://dot.ca.gov/programs/transportation-planning. Accessed December 2024

California Department of Water Resources. Bulletin 118 – Update 2003. October 2003. Website: https://water.ca.gov/Programs/Groundwater-Management/Bulletin-118 . Accessed December 2024.

California Department of Water Resources. Bulletin 118 – Interim Update 2016, California's Groundwater, Working Toward Sustainability. December 22, 2016. Website: California's Groundwater Bulletin 118. Accessed October 2025.

California Department of Water Resources. Groundwater Basin Boundary Assessment Tool. Website: https://gis.water.ca.gov/app/bbat/. Accessed December 2024.

California Health and Safety Code Section 7050.5 and Public Resource Code Section 5097.98. Websites: https://california.public.law/codes/ca_health_and_safety_code_section_7050.5 accessed December 2024.

Federal Emergency Management Agency, 2009 National Flood Insurance Rate Map, Map Number 06107C1670E, Panel Number 1670 of 2550, June 16, 2009. https://msc.fema.gov/portal/search?AddressQuery=road%20296%2C%20porterville%2C%20ca. Website accessed December 2024.

Five County Seismic Safety Element for Fresno, Kings, Madera, Mariposa & Tulare Counties. 1974. https://tularecounty.ca.gov/rma/planning-building/environmental-planning/environmental-planning-resources/five-county-seismic-safety-element-1974/. Accessed November 2024.

San Joaquin Valley Unified Air Pollution Control District. Climate Change Action Plan (CCAP) – Resources. . Website: Climate Change Action Plan | Valley Air District accessed December 2024.

San Joaquin Valley Unified Air Pollution Control District. Current District Rules and Regulations. Website: https://ww2.valleyair.org/rules-and-planning/current-district-rules-and-regulations/, accessed December 2024.

San Joaquin Valley Unified Air Pollution Control District. Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI). March 19, 2015. Website: https://ww2.valleyair.org/media/g4nl3p0g/gamaqi.pdf . Accessed December 2024.

San Joaquin Valley Unified Air Pollution Control District. Small Project Analysis Level (SPAL). June 2012. Website: https://ww2.valleyair.org/media/5jppiwed/cms-format-spal.pdf. Accessed October 2025.

State Water Resources Control Board. Storm Water Program. https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html . Website accessed December 2024.

Tulare County. Climate Action Plan Update. December 2018. https://generalplan.co.tulare.ca.us/documents/GP/001Adopted%20Tulare%20County%20General%20Plan%20Materials/220Climate%20Action%20Plan/CLIMATE%20ACTION%20PLAN%202018%20UPDATE.pdf. Accessed November 2024.

Tulare County. Complete Streets. https://tularecounty.ca.gov/rma/rma-documents/planning-documents/complete-streets/. Accessed November 2024.

Tulare County. General Plan 2030 Update. August 2012. https://generalplan.co.tulare.ca.us/index.asp. Accessed November 2024. The Background Report and Recirculated Draft Environmental Impact Report can be found on this page.

Tulare County. SB 552 Drought and Water Shortage Risk Analysis and Response Plan. June 2023. https://tularecounty.ca.gov/rma/rma-documents/planning-documents/tulare-county-sb-552-plan/. Accessed November 2024.

Tulare County. SB 743 Guidelines. June 2020. Microsoft Word - Tulare County Draft SB 743 Guidelines 6-8-20.docx. Accessed November 2024.

Tulare County. Tulare County Adopted Plans – Community, Hamlet, Legacy. https://tularecounty.ca.gov/rma/rma-documents/planning-documents/tulare-county-adopted-plans-community-hamlet-legacy/. Accessed November 2024.

Tulare County. Tulare County Comprehensive Airport Land Use Plan. December 2012. Planning Documents | Tulare. Accessed November 2024.

Tulare County. Tulare County Housing Element Action Program 9, Existing Infrastructure. December 2024. Tulare County Housing Element | Tulare. Accessed October 2025.

Tulare County. Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan. March 2023. Planning Documents | Tulare. Accessed October 2025.

DRAFT

Tulare County Association of Governments. 2022 Regional Transportation Plan & Sustainable Communities Strategy. August 1, 2022. 2022 Regional Transportation Plan/Sustainable Communities Strategy | Tulare County Association of Governments, accessed September 2025.

Tulare County Fire Department. Websites: http://tularecounty.ca.gov/fire/ and https://tularecounty.ca.gov/fire/stations-map/ Accessed December 2024.

Tulare County Public and Private Airports, California. Website: http://www.tollfreeairline.com/california/tulare.htm. Accessed December 2024.

Tulare County Sheriff's Department. Website: http://www.tularecounty.ca.gov/sheriff/. Accessed December 2024.

United States Department of Agriculture, Forest Service. Sequoia National Forest, Office Addresses. Website: https://www.fs.usda.gov/detail/sequoia/about-forest/offices. Accessed December 2024.

United States Department of Agriculture, Natural Resources Conservation Service (NRCS). Web Soil Survey. Website: http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed December 2024.

United States Department of Agriculture, Natural Resources Conservation Service (NRCS). NSSH Part 622, Interpretative Groups. https://directives.nrcs.usda.gov//sites/default/files2/1725389663/National%20Soil%20Survey%20Handbook%20%28entire%20handbook%29.pdf Accessed December 2024.

United States Department of Agriculture, Natural Resources Conservation Service (NRCS). Official Soil Series Descriptions and Series Classification. Official Soil Series Descriptions (OSD). Website: https://soilseries.sc.egov.usda.gov/OSD_Docs/S/SAN_EMIGDIO.html. Accessed December 2024.

United States Department of Transportation, Federal Transit Administration. Construction Noise Handbook, 2006. Websites: http://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm and http://www.fhwa.dot.gov/environment/noise/construction_noise/special_report/hcn04.cfm#sou. Accessed December 2024.

United States Department of Transportation, Federal Transit Administration. Transit Noise and Vibration Impact Assessment, FTA-VA-90-1003-06; May, 2006. Website: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf. Accessed December 2024.

United States Fish and Wildlife Service. National Wetlands Inventory. Website: https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper .--Accessed December 2024.

United States Geological Survey. National Water Information System (NWIS) Mapper: Website: http://maps.waterdata.usgs.gov/mapper/index.html. Accessed December 2024.

United States Geological Survey, 1989. The Severity of an Earthquake. Website: http://pubs.usgs.gov/gip/earthq4/severitygip.html. Accessed December 2024

DRAFT

ATTACHMENT A

Air Quality / GHG Modeling Report

DRAFT

AIR QUALITY, GREENHOUSE GAS, AND ENERGY ANALYSIS FOR

PIXLEY TRUCK STOP PROJECT

TULARE COUNTY, CA

OCTOBER 2025

PREPARED FOR:
COUNTY OF TULARE
RESOURCE MANAGEMENT AGENCY
TULARE, CALIFORNIA

PREPARED BY:
PROVOST & PRITCHARD CONSULTING GROUP
120 NORTH FLORAL STREET, VISALIA, CALIFORNIA 93291

PROVOST&
PRITCHARD

COPYRIGHT 2025 BY PROVOST & PRITCHARD CONSULTING GROUP ALL RIGHTS RESERVED
Provost & Pritchard Consulting Group expressly reserves its common law copyright and other applicable property rights to this document. This document is not to be reproduced, changed, or copied in any form or manner whatsoever, nor are they to be assigned to a third party without first obtaining the written permission and consent of Provost & Pritchard Consulting Group In the event of unauthorized reuse of the information contained herein by a third party, the third party shall hold the firm of Provost & Pritchard Consulting Group harmless, and shall bear the cost of Provost & Pritchard Consulting Group's legal fees associated with defending and enforcing these rights.

REPORT PREPARED FOR:
COUNTY OF TULARE
5961 South Mooney Boulevard
Visalia, California 93277

CONTACT:
Gary Mills
(559) 638-4413

REPORT PREPARED BY:
Provost & Pritchard Consulting Group
Jarred Olsen, AICP, Senior Planner
Amy Wilson, Senior Planner
Jackie Lancaster, Senior Project Administrator

CONTACT:
Amy Wilson
(559) 636-1166

TABLE OF CONTENTS

1 Executive Summary 1-1
1.1 Purpose and Methods of Analysis 1-1
1.2 Project Description 1-1
1.3 Summary of Analysis Results 1-1
2 Air Quality 2-1
2.1 Regulatory Setting 2-1
2.1.1 Federal 2-1
2.1.2 State 2-15
2.1.3 Regional 2-16
2.1.4 Local 2-17
2.2 Environmental Setting 2-18
2.2.1 Climate Meteorology, Topography 2-18
2.2.2 Attainment Status 2-19
2.2.3 Ambient Air Quality Levels 2-20
2.3 Threshold of Significance 2-21
2.4 Methodology 2-22
2.4.1 Short-Term Construction-Generated Emissions 2-22
2.4.2 Long-Term Operational Emissions 2-22
2.5 Impact Analysis 2-22
2.5.1 Consistency with Air Quality Plan 2-23
2.5.2 Cumulative Criteria Pollutant Impacts 2-23
2.5.3 Sensitive Receptors 2-24
2.5.4 Objectionable Odors 2-27
3 Energy 3-1
3.1 Regulatory Setting 3-1
3.1.1 Federal 3-1
3.1.2 State 3-2
3.1.3 Local 3-5
3.2 Environmental Setting 3-6
3.3 Methodology 3-6
3.4 Impact Analysis 3-6
3.4.1 Wasteful, Inefficient, or Unnecessary Consumption of ENergy Resources 3-6
3.4.2 Consistency with State or Local Plans for Renewable Energy or Energy Efficiency 3-7
4 Greenhouse Gases 4-1
4.1 Regulatory Setting 4-1
4.1.1 Federal 4-1
4.1.2 State 4-2
4.1.3 Local 4-5
4.2 Threshold of Significance 4-6
4.3 Methodology 4-7
4.3.1 Short-Term Construction-Generated Emissions 4-7
4.3.2 Long-Term Operational Emissions 4-7

4.4 Impact Analysis 4-7
4.4.1 Greenhouse Gas Inventory 4-7
4.4.2 Greenhouse Gas Reduction Plans 4-8
5 Conclusion 5-1
6 References 6-1

LIST OF APPENDICES

Appendix A: Air Quality Output Files

LIST OF TABLES

Table 1-1: Impact Summary 1-1
Table 2-1: Ambient Air Quality Standards & Attainment Designation 2-19
Table 2-2: Summary of Annual Data on Ambient Air Quality 2-20
Table 2-3: Thresholds of Significance for Criteria Air Pollutants 2-21
Table 2-4: Screening Levels for Potential Odor Sources 2-21
Table 2-5: Thresholds of Significance for Toxic Air Contaminants 2-21
Table 2-6: Construction Emission Summary, Criteria Air Pollutants 2-24
Table 2-7: Operational Emissions Summary, Criteria Air Pollutants 2-24
Table 2-8: Maximum Daily Construction and Operational Emissions, Criteria Air Pollutants 2-25
Table 2-9: Health Risk of Maximum Exposed Individual Receptor 2-27
Table 4-1: Construction Emissions, Greenhouse Gases 4-7
Table 4-2: Operational Emissions, Greenhouse Gases 4-7
Table 4-3: AB 32 Consistency Table 4-8
Table 4-4: SB 32 Consistency Table 4-10
Table 4-5: AB 1279 Consistency Table 4-12
Table 4-7: CAP Consistency Table for Nonresidential Projects 4-13
Table 4-8: CAP Consistency Table for Projects that Require Quantification 4-14
Table 4-1: Impact Summary 5-1

ABBREVIATIONS

AB ..... Assembly Bill
ADMRT ..... Air Dispersion Modeling and Risk Assessment Tool
APCD ..... Air Pollution Control District
AQ ..... Air Quality
AQMD ..... Air Quality Management District
AQP ..... Air Quality Plan
BPS ..... Best Performance Standards
CAFE ..... Corporate Average Fuel Economy
CARB ..... California Air Resources Board
CAAQS ..... California Ambient Air Quality Standards
CalEEMod ..... California Emissions Estimator Model
CalGreen Code ..... California Green Building Standards Code
CCA ..... Clean Air Act
CCAA ..... California Clean Air Act
CCR ..... California Code of Regulations
CEC ..... California Energy Commission
CEQA ..... California Environmental Quality Act
CO ..... Carbon monoxide
DCP ..... Dust Control Plan
District ..... San Joaquin Valley Air Pollution Control District
DPM ..... Diesel particulate matter
EMFAC ..... ARB Emission Factor
EO ..... Executive Order
EPA ..... United States Environmental Protection Agency
GAMAQI ..... *Guideline for Assessing and Mitigating Air Quality Impacts*
GDF ..... Gasoline Dispensing Facility
GHG ..... Greenhouse Gas
HARP ..... Hotspots Analysis and Reporting Program
HRA ..... Health Risk Assessment
IPCC ..... United Nations Intergovernmental Panel on Climate Change
Lead Agency ..... County of Tulare
$MTCO_2e$ ..... Metric Tons Carbon Dioxide Equivalent
NAAQS ..... National Ambient Air Quality Standards
NHTSA ..... National Highway Traffic Safety Administration
NO_X ..... Oxides of Nitrogen
PM_{10} ..... Particulate matter 10 microns or less
$PM_{2.5}$ ..... Particulate matter 2.5 microns or less
Project ..... Pixley Truck Stop Project
ROG ..... Reactive organic gases
SB ..... Senate Bill
SCAQMD ..... South Coast Air Quality Management District
SCS ..... Sustainable Communities Strategy
SIP ..... State Implementation Plan
SJVAB ..... San Joaquin Valley Air Basin
SJVAPCD ..... San Joaquin Valley Air Pollution Control District
SLCP ..... Short-Lived Climate Pollutant
SO_2 ..... Sulfur dioxide
TAC ..... Toxic Air Contaminant
VOC ..... Volatile Organic Compounds
ZEV ..... Zero Emission Vehicles

1 EXECUTIVE SUMMARY

1.1 PURPOSE AND METHODS OF ANALYSIS

The following air quality (AQ), energy (NRG), and greenhouse gas (GHG) analysis was prepared to evaluate whether the estimated criteria air pollutants, toxic air contaminants (TACs), GHG emissions generated, and the fuel consumed from the construction and operation of the Pixley Truck Stop Project (Project) would cause significant impacts to air, greenhouse gas, and energy resources in the Project area. This assessment was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.). The methodology follows the *Guidance for Assessing and Mitigating Air Quality Impacts* (GAMAQI) prepared by the San Joaquin Valley Air Pollution Control District (SJVAPCD or District) for quantification of emissions and evaluation of potential impacts to air resources[1] and the SJVAPCD's *Guidance for Valley Land-Use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA*.[2]

1.2 PROJECT DESCRIPTION

The proposed project consists of a 20,000 square foot convenience store, nine diesel fueling positions, four RV fueling positions, 16 automobile fueling positions, 19 electric automobile charging stations, 16 electric large vehicle charging stations, and a 3,100 square foot fast-food restaurant with drive-through.

1.3 SUMMARY OF ANALYSIS RESULTS

The following is a summary of the analysis results. As shown below, the Project would result in less than significant impacts for all air quality impact criteria, energy, and all GHG impact criteria analyzed.

Table 1-1: Impact Summary

Impact	Appendix G Answer	Result
AIR-1	The project would not conflict with or obstruct implementation of the applicable air quality plan.	Less than Significant Impact.
AIR-2	The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors).	Less than Significant Impact.
AIR-3	The project would not expose sensitive receptors to substantial pollutant concentrations.	Less than Significant Impact.
AIR-4	The project would not create objectionable odors affecting a substantial number of people.	Less than Significant Impact.
NRG-1	The project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.	Less than Significant Impact.
NRG-2	The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	Less than Significant Impact.

[1] (San Joaquin Valley Air Pollution Control District 2015)
[2] (San Joaquin Valley Air Pollution Control District 2009)

Impact	Appendix G Answer	Result
GHG-1	The project would not generate direct or indirect greenhouse gas emissions that would result in a significant impact on the environment.	Less than Significant Impact.
GHG-2	The project would not conflict with any applicable plan, policy or regulation of an agency adopted to reduce the emissions of greenhouse gases.	Less than Significant Impact.

2 AIR QUALITY

2.1 REGULATORY SETTING

2.1.1 FEDERAL

At the federal level, the United States Environmental Protection Agency (EPA) has been charged with implementing national air quality programs. The EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA). The federal CAA was first signed into law in 1963. Congress substantially amended the federal CAA in 1970, 1977, and 1990.

The EPA deals with global, international, national, and interstate air pollution issues. Their primary role at the state level is one of oversight of state air quality programs. The EPA sets federal standards for vehicle and stationary sources and provides research and guidance in air pollution programs.

The federal CAA required the EPA to set National Ambient Air Quality Standards (NAAQS) for several problem air pollutants on the basis of human health and welfare criteria. Two types of NAAQS have been established: primary standards, which protect public health, and secondary standards, which protect public welfare (e.g., crops, forests, materials, visibility, etc.). Primary NAAQS have been established for the following criteria air pollutants:

- Carbon monoxide (CO)
- Ozone (O_3)
- Respirable particulate matter (PM_{10})
- Fine particulate matter ($PM_{2.5}$)
- Nitrogen dioxide (NO_2)
- Sulfur dioxide (SO_2)
- Lead (Pb)

All of the above, except CO, also have some form of secondary standard. The primary NAAQS standards are intended to protect, within an adequate margin of safety, those persons most susceptible to respiratory distress, such as people suffering from asthma or other illness, the elderly, very young children, or others engaged in strenuous work or exercise.

The EPA designates areas with air quality not meeting federal standards as “nonattainment.” The federal CAA further classifies nonattainment areas based on the severity of the nonattainment problem, with marginal, moderate, serious, severe, and extreme nonattainment classifications for ozone. Nonattainment classifications for PM range from marginal to serious.

The federal CAA requires areas with air quality violating the NAAQS to prepare an air quality control plan referred to as the State Implementation Plan (SIP). The SIP contains the strategies and control measures that states such as California will use to attain the NAAQS. The federal CAA amendments of 1990 require states containing areas that violate the NAAQS to revise their SIP to incorporate additional control measures to reduce air pollution. The SIP is a living document that is periodically modified to reflect the latest emissions inventories, planning documents, rules, and regulations of Air Basins as reported by the agencies with jurisdiction over them. The EPA reviews SIPs to determine if they conform to the mandates of the federal CAA amendments and will achieve air quality goals when implemented. If the EPA determines a SIP to be inadequate, it may prepare a Federal Implementation Plan for the nonattainment area and impose additional control measures.

In addition to setting health-based standards for air pollutants, the EPA also oversees state and local actions to improve air quality. The following list provides a brief explanation of important regulations set forth by EPA:

2.1.1.1 FEDERAL CLEAN AIR ACT

- Requires air quality plans to include measures necessary to achieve NAAQS.
- Requires all plans, programs, and projects that require federal approval, including transportation plans, to conform to air quality plans.
- Requires sanctions if all feasible measures are not expeditiously adopted.

2.1.2 STATE

States are required to develop and implement air pollution control plans designed to achieve and maintain the NAAQS established by the EPA. States may also establish their own standards, provided the state standards are at least as stringent as the NAAQS. California has established California Ambient Air Quality Standards (CAAQS) pursuant to Health and Safety Code Section 39606(b) and its predecessor statutes.

The California Legislature established the Air Resources Board (CARB) in 1967. The CARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA) of 1988. The CCAA provides a planning framework for attainment of the CAAQS for O_3, CO, SO_2, and NO_2. The CCAA classifies ozone nonattainment areas as moderate, serious, severe, and extreme based on severity of violation of state ambient air quality standards. For each class, the CCAA specifies air quality management strategies that must be adopted. For all nonattainment categories, attainment plans are required to demonstrate a five-percent-per-year reduction in nonattainment air pollutants or their precursors, averaged every consecutive three-year period, unless an approved alternative measure of progress is developed. Air districts responsible for air basins with air quality that is in violation of CAAQS for O_3, CO, SO_2, and NO_2 are required to prepare an air quality attainment plan that lays out a program to attain the CCAA mandates.

Other CARB duties include monitoring air quality in conjunction with air monitoring networks maintained by air pollution control districts (APCDs) and air quality management districts (AQMDs), establishing CAAQS (which are more stringent than the NAAQS in many cases), setting emissions standards for new motor vehicles, and reviewing district input for the SIP required by the federal CAA amendments. The SIP consists of the emissions standards for vehicular sources set by the CARB as well as attainment plans adopted by the APCD or AQMD and approved by the CARB.

The State of California, through the CARB and Bureau of Automotive Repair, develops programs to reduce pollution from vehicles and consumer products. The following list provides a brief explanation of important regulations set forth by the State of California:

2.1.2.1 CALIFORNIA CLEAN AIR ACT

- Requires all feasible control measures, including transportation control measures, to reduce emissions.
- Provides for indirect source programs in attainment plans.
- Contains targets for emission reductions, vehicle miles traveled, and average vehicle ridership.

ASSEMBLY BILL 170

- Requires cities and counties in the Valley to incorporate strategies to improve air quality in their general planning efforts.

SENATE BILL 709

- Gave the Air District more responsibility in terms of permitting, fee implementation, and agricultural assistance, but also gives the Air District the authority to require the use of best

available control technology (BACT) for existing sources, promote cleaner-burning alternative fuels, and encourage and facilitate ridesharing.

- Allows the Air District to adopt a surcharge on motor vehicle registration fees in counties within the Air District.

CALIFORNIA GOVERNMENT CODE SECTION 65089

- Requires trip reduction and travel demand management in Congestion Management Programs.

2.1.3 REGIONAL

Air pollution does not respect political boundaries. Therefore, many air quality problems are best managed on a regional basis. In 1991 the State Legislature determined that management of an air basin by a single agency would be more effective than management through each county within that basin. Air basins are geographic areas sharing a common "air-shed." Most major metropolitan areas in California now fall under the authority of multi-county APCDs or AQMDs.

Air districts have the primary responsibility for control of air pollution from all sources other than direct motor vehicle emissions, which are the responsibility of the CARB and EPA. Air districts adopt and enforce rules and regulations to achieve state and federal ambient air quality standards and enforce applicable state and federal law.

The San Joaquin Valley Air Pollution Control District (SJVAPCD), formed in 1991, has jurisdiction over air quality matters in the San Joaquin Valley Air Basin (SJVAB), spanning the counties of Fresno, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare, and the western portion of Kern.

Until the passage of the CCAA, the primary role of county APCDs was controlling stationary sources of pollution, such as industrial processes and equipment. With the passage of the CCAA and federal CAA amendments, air districts were required to implement transportation control measures and were encouraged to adopt indirect source control programs to reduce mobile source emissions. These mandates created the necessity for air districts to work closely with cities, counties, and regional transportation planning agencies to develop new programs.

The Air District entered into a memorandum of understanding with the eight San Joaquin Valley County transportation planning agencies in 1992. This memorandum of understanding ensures a coordinated approach in the development and implementation of transportation plans throughout the Valley. This action has helped the Regional Transportation Planning Agencies comply with pertinent provisions of the federal and state Clean Air Acts as well as related transportation legislation (such as the Intermodal Surface Transportation Efficiency Act).

The Air District develops plans and implements control measures in an effort to advance Valley attainment of CAAQS and NAAQS. The Air District has developed plans to attain state and federal standards for ozone and particulate matter. The Air District's air quality plans include emissions inventories to measure the sources of air pollutants, to evaluate how well different control methods have worked, and to show how air pollution will be reduced. The plans also use computer modeling to estimate future levels of pollution and make sure that the Valley will meet air quality goals on time.

Control measures applicable to this Project are as follows:

2.1.3.1 REGULATION VIII—FUGITIVE PM_{10} PROHIBITIONS

Regulation VIII is a control measure that is one of the main strategies from the 2006 PM_{10} Plan for reducing the PM_{10} emissions that are part of fugitive dust. Projects over 10 acres are required to file a Dust Control Plan (DCP) containing dust control practices sufficient to comply with Regulation VIII. The Project is required to prepare a DCP to comply with Regulation VIII.

RULE 2201 – NEW AND MODIFIED STATIONARY SOURCE

The purpose of this rule is to regulate new and modifications to existing stationary sources of emissions. These emission sources requite both an Authority to Construct and a Permit to Operate. Criteria air pollutant emissions that exceed thresholds must be offset to avoid interfering with attainment or maintenance of ambient air quality standards. This project would be required to comply with Rule 2201 for its Gasoline Dispensing Facility use.

RULE 4002—NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS

The purpose of the rule is to incorporate the National Emission Standards for Hazardous Air Pollutants from Part 61, Chapter I, Subchapter C, Title 40, Code of Federal Regulations and the National Emission Standards for Hazardous Air Pollutants for Source Categories from Part 63, Chapter I, Subchapter C, Title 40, Code of Federal Regulations to protect the health and safety of the public from hazardous air pollutants, such as asbestos.

RULE 4102—NUISANCE

The purpose of this rule is to protect the health and safety of the public and applies to any source operation that emits or may emit air contaminants or other materials. Agricultural activities are exempt from the nuisance rule.

RULE 9510 – INDIRECT SOURCE REVIEW

The purpose of this rule is to ensure that land use development projects reduce their construction/operational NO_X and PM_{10} emissions by 20%/40% and 33.3%/50%, respectively. Operational emissions are required to be reduced over a period of 10 years. Emission reductions can be obtained either by implementing on-site improvements, such as using more efficient construction equipment, improved land use design, electrical vehicle chargers, photovoltaic panels, or by simply paying an in-lieu fee that goes towards emission-reducing projects elsewhere in the Air District's region.

OTHER MEASURES

Other control measures that apply to the Project are Rule 4641—Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operation that requires reductions in volatile organic compound (VOC) emissions during paving and Rule 4601—Architectural Coatings that limits the VOC content of all types of paints and coatings sold in the San Joaquin Valley. These measures apply at the point of sale of the asphalt and coatings, so Project compliance is ensured.

2.1.4 LOCAL

The County of Tulare adopted its General Plan Review in 2012.[3] The applicable air quality goals and policies from the County of Tulare 2030 General Plan are listed below.

<u>AQ-2.2 Indirect Source Review:</u>

The County shall require major development projects, as defined by the SJVAPCD, to reasonably mitigate air quality impacts associated with the project. The County shall notify developers of SJVAPCD Rule 9510 Indirect Source Review requirements and work with SJVAPCD to determine mitigations, as feasible, that may include, but are not limited to the following:

1. *Providing bicycle access and parking facilities,*
2. *Increasing density,*

[3] (County of Tulare 2012)

3. *Encouraging mixed use developments,*
4. *Providing walkable and pedestrian-oriented neighborhoods,*
5. *Providing increased access to public transportation,*
6. *Providing preferential parking for high-occupancy vehicles, car pools, or alternative fuels vehicles, and*
7. *Establishing telecommuting programs or satellite work centers.*

AQ-3.1 Location of Support Services.
The County shall encourage the location of ancillary employee services (including, but not limited to, childcare, restaurants, banking facilities, convenience markets) near major employment centers for the purpose of reducing midday vehicle trips.

AQ-3.2 Infill Near Employment:
The County shall identify opportunities for infill development projects near employment areas within all unincorporated communities and hamlets to reduce vehicle trips.

AQ-3.3 Street Design:
The County shall promote street design that provides an environment which encourages transit use, biking, and pedestrian movements.

AQ-3.6 Mixed Land Uses:
The County shall encourage the clustering of land uses that generate high trip volumes, especially when such uses can be mixed with support services and where they can be served by public transportation.

2.2 ENVIRONMENTAL SETTING

Air quality impacts are both local and regional. Regional and local air quality is impacted by topography, dominant airflows, atmospheric inversions, location, and season. The Project is located in the SJVAB, which experiences some of the most challenging environmental conditions for air quality in the nation. The following section describes these conditions as they pertain to the Air Basin. The information in this section is primarily from the SJVAPCD's GAMAQI.[4]

2.2.1 CLIMATE METEOROLOGY, TOPOGRAPHY

The Project site is in unincorporated Tulare County. The SJVAB (in which the Project site is located) has an inland Mediterranean climate characterized by warm, dry summers and cooler winters. Summer temperatures often exceed 100 degrees Fahrenheit (°F) and can vary as much as 30°F. Winters are for the most part mild and humid, with average high in the 50s, while the average daily low temperature is approximately 45°F.

The vertical dispersion of air pollutants in the Valley is limited by the presence of persistent temperature inversions. Air temperature usually decreases as altitude increases. A reversal of this atmospheric state, where the air temperature increases with height, is termed an inversion. Air above and below an inversion does not mix because of differences in air density thereby restricting air pollutant dispersal.

Wind speed and direction play an important role in the dispersion and transport of air pollutants. During summer periods, winds typically originate from the northern San Joaquin Valley and flow in a south-southeasterly direction through the Valley, down through the Tehachapi Pass and into the neighboring Southeast Desert Air Basin. During winter months, winds occasionally originate in the opposite direction, from the south end of the Valley and flow in a north-northwesterly direction. Also, during winter months,

[4] (San Joaquin Valley Air Pollution Control District 2015)

the Valley experiences light, variable winds, less than 10 miles per hour. Low wind speeds, combined with low inversion layers in the winter, create a climate conducive to high concentrations of certain air pollutants.

The SJVAB is basically a flat area bordered on the east by the Sierra Nevada Mountains; on the west by the Coast Ranges; and to the south by the Tehachapi Mountains. Airflow in the SJVAB is primarily influenced by marine air that enters through the Carquinez Straits where the San Joaquin-Sacramento Delta empties into the San Francisco Bay. The region's topographic features restrict air movement through and out of the basin. As a result, the SJVAB is highly susceptible to pollutant accumulation over time. Frequent transport of pollutants into the SJVAB from upwind sources also contributes to poor air quality.

2.2.2 ATTAINMENT STATUS

The EPA and the CARB designate air basins where ambient air quality standards are exceeded as "nonattainment" areas. If standards are met, the area is designated an "attainment" area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered "unclassified." National nonattainment areas are further designated marginal, moderate, serious, severe, or extreme as a function of deviation from standards. Each standard has a different definition, or "form" of what constitutes attainment, based on specific air quality statistics. For example, the federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the federal annual $PM_{2.5}$ standard is met if the three-year average of the annual average $PM_{2.5}$ concentration is less than or equal to the standard. The current attainment designations for the Air Basin are shown in Table 2-1. The Air Basin is designated nonattainment for ozone, PM_{10}, and $PM_{2.5}$.

Table 2-1: Ambient Air Quality Standards & Attainment Designation

Pollutant	Averaging Time	National Standards	California Standards
Ozone (O_3)	1-hour	No Federal Standard	Nonattainment/Severe
	8-hour	Nonattainment (Extreme)	Nonattainment
Particulate Matter (PM_{10})	AAM	Attainment	Nonattainment
	24-hour		
Fine Particulate Matter ($PM_{2.5}$)	AAM	Nonattainment	Nonattainment
	24-hour		
Carbon Monoxide (CO)	1-hour	Attainment/Unclassified	Attainment/Unclassified
	8-hour		
	8-hour (Lake Tahoe)		
Nitrogen Dioxide (NO_2)	AAM	Attainment/Unclassified	Attainment
	1-hour		
Sulfur Dioxide (SO_2)	AAM	Attainment/Unclassified	Attainment
	24-hour		
	3-hour		
	1-hour		

Pollutant	Averaging Time	National Standards	California Standards
Lead (Pb)	30-day Average	No Designation/Classification	Attainment
	Calendar Quarter		
	Rolling 3-Month Average		
Hydrogen Sulfide (H_2S)	1-hour	No Federal Standards	Unclassified
Sulfates (SO_4)	24-hour	No Federal Standards	Attainment
Visibility-Reducing Particle Matter	8-hour	No Federal Standards	Unclassified
Vinyl Chloride (C_2H_3Cl)	24-hour	No Federal Standards	Attainment
AAM = Annual Arithmetic Mean Source: (San Joaquin Valley Air Pollution Control District 2025)			

2.2.3 AMBIENT AIR QUALITY LEVELS

Criteria air pollutant concentrations are measured at several monitoring stations in the surrounding area. Table 2-2 summarizes the air quality data measured at monitoring stations near the Project site during the last three available years (2021-2023). The Visalia-N Church Street and Visalia-W. Ashland Avenue stations are the closest stations to the Project site with recent data. The station at N Church Street was moved to W. Ashland Avenue in 2022. Both CARB and EPA use monitoring data to designate areas according to their attainment status for criteria air pollutants (attainment designations are summarized above in Table 2-1).

Table 2-2: Summary of Annual Data on Ambient Air Quality

	2021	2022	2023
Ozone			
Maximum concentration (1-hr/8-hr avg, ppm)	0.119/0.097	0.114/0.098	0.100/0.087
Number of days state standard exceeded (1-hr/8-hr)	14/52	8/64	3/30
Number of days national standard exceeded (8-hr)	51	62	27
Fine Particulate Matter ($PM_{2.5}$)			
Maximum concentration (24-hour µg/m^3)	129.2	48.3	42.9
Number of days national standard exceeded (24-hour measured)	46.6	18.5	6.1
Respirable Particulate Matter (PM_{10})			
Maximum concentration (µg/m^3)	302.1	132.7	108.8
Number of days state standard exceeded	ID	ID	108.5
Number of days national standard exceeded	4.7	ID	0
Notes: µg/m^3 = micrograms per cubic meter; ppm = parts per million; ID = insufficient data Source: (California Air Resources Board 2025)			

2.3 THRESHOLD OF SIGNIFICANCE

The District's annual emission significance thresholds used for the Project define the substantial contribution for both operational and construction emissions as follows:

Table 2-3: Thresholds of Significance for Criteria Air Pollutants

Criteria Pollutant	Emissions (in tons per year)	
	Construction	Operations
ROG	10	10
CO	100	100
NO_X	10	10
SO_X	27	27
PM_{10}	15	15
$PM_{2.5}$	15	15

Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, schools, etc. warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas. The District has determined the common land use types that are known to produce odors in the Air Basin. These types are shown in Table 2-4.

Table 2-4: Screening Levels for Potential Odor Sources

Odor Generator	Screening Distance
Wastewater Treatment Facilities	2 miles
Sanitary Landfills	1 mile
Transfer Stations	1 mile
Composting Facilities	1 mile
Petroleum Refineries	2 miles
Asphalt Batch Plants	1 mile
Chemical Manufacturers	1 mile
Fiberglass Manufacturers	1 mile
Painting/Coating Operations	1 mile
Food Processors	1 mile
Feed Lots and Dairies	1 mile
Rendering Plants	1 mile

The District's current thresholds of significance for toxic air contaminant (TAC) emissions from the operations of both permitted and non-permitted sources are combined and presented in Table 2-5 below.

Table 2-5: Thresholds of Significance for Toxic Air Contaminants

Toxic Air Contaminant Type	Threshold
Carcinogens	Maximally Exposed Individual risk equals or exceeds 20 in one million
Non-Carcinogen, Acute Effects	Hazard Index equals or exceeds 1 for the Maximally Exposed Individual
Non-Carcinogen, Chronic Effects	Hazard Index equals or exceeds 1 for the Maximally Exposed Individual

2.4 METHODOLOGY

2.4.1 SHORT-TERM CONSTRUCTION-GENERATED EMISSIONS

Short-term construction emissions associated with the Project were calculated with the California Emissions Estimator Model (CalEEmod), Version 2022.1.1.30. These output files can be found in Appendix A. The sections below detail the methodology of the air quality emissions analysis and its conclusions.

The emissions modeling includes emissions generated by off-road equipment, haul trucks, and worker commute trips. Emissions were quantified based on CalEEMod default assumptions.

Health risks from construction-related diesel particulate matter were analyzed using the CARB's Hotspots Analysis and Reporting Program (HARP) Air Dispersion Modeling and Risk Assessment Tool (ADMRT) version 21081. The exposure duration was limited to the construction length – 1.45 years. All PM_{10} exhaust emissions quantified from the above-mentioned output files were assumed to be diesel particulate matter.

2.4.2 LONG-TERM OPERATIONAL EMISSIONS

Operational emissions would occur over the lifetime of the Project. Operational emissions sources would be from three main sources: area sources, energy usage, and motor vehicles usage known as mobile sources. Area source emissions include emissions from natural gas, landscape, painting, and stationary sources. Modeling assumptions and output files are included in Appendix A. The unmitigated long-term operational emissions for the Project are listed in Table 2-7.

Health risks from truck-related diesel particulate matter were analyzed using the CARB's HARP ADMRT version 21081. Emissions were assumed to occur between SR 99 and the Project site. PM_{10} exhaust emissions were quantified using EMFAC2025 On-Road emission factors for calendar year 2025 and assuming an average speed of 55 miles per hour along this path. Truck trip generation rates were based on the 12th Edition ITE Manual. The exposure duration was limited to the construction length – 1.45 years.

Operational emissions were estimated to occur after construction was completed, for approximately 68.55 years, after taking into account the above-mentioned construction time period in a 70-year exposure period.

GDF emissions were analyzed using the parameters in the *Gasoline Service Station Industrywide Risk Assessment Technical Guidance* prepared by CARB, dated February 18, 2022, in ADMRT. GDF emission factors were based on EVR Phase I and EVR Phase II controls. The proposed convenience store was modeled to determine if building downwash would disperse contaminants differently. It was assumed that the annual gasoline throughput would be approximately 1.68 million gallons, as provided by the Project applicant.

2.5 IMPACT ANALYSIS

The CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial, adverse change in the environment." To determine if a project would have a significant impact on air quality, the type, level, and impact of emissions generated by the project must be evaluated. A significant impact would occur if the Project would:

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

While the final determination of whether a project is significant is within the purview of the Lead Agency pursuant to Section 15064(b) of the CEQA Guidelines, the District recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions. If the Lead Agency finds that the Project has the potential to exceed these air pollution thresholds, the Project should be considered to have significant air quality impacts. The applicable District thresholds and methodologies are contained under each impact statement below.

2.5.1 CONSISTENCY WITH AIR QUALITY PLAN

Impact AIR-1: The project would not conflict with or obstruct implementation of the applicable air quality plan.

2.5.1.1 IMPACT ANALYSIS

The CEQA Guidelines indicate that a significant impact would occur if the Project would conflict with or obstruct implementation of the applicable air quality plan. The GAMAQI indicates that projects that do not exceed SJVAPCD regional criteria pollutant emissions quantitative thresholds would not conflict with or obstruct the applicable air quality plan (AQP).

As discussed in Impact AIR-2 below, emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ associated with the construction and operation of the Project would not exceed the District's significance thresholds. Therefore, the Project would not contribute to air quality violations.

The Project's emissions would be less than significant for all pollutants criteria and would not result in inconsistency with the AQP for this criterion. The Project complies with all applicable control measures from the AQP; therefore, the Project is consistent with the AQP, and the impact would be less than significant.

2.5.2 CUMULATIVE CRITERIA POLLUTANT IMPACTS

Impact AIR-2: The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.

2.5.2.1 IMPACT ANALYSIS

To result in a less significant impact, the following criteria must be true:

a) Regional analysis: emissions of nonattainment pollutants must be below the District's regional significance thresholds. This is an approach recommended by the District in its GAMAQI.
b) Summary of projections: the project must be consistent with current air quality attainment plans including control measures and regulations. This is an approach consistent with Section 15130(b) of the CEQA Guidelines.
c) Cumulative health impacts: the project must result in less than significant cumulative health effects from the nonattainment pollutants.

Project-generated emissions are below the SJVAPCD's regional significance thresholds, and the Project is consistent with current air quality attainment plans including control measures and regulations, as depicted below in Table 2-6 and Table 2-7.

With respect to cumulative health impacts, the air basin is in non-attainment for O_3, $PM_{2.5}$, and PM_{10} (state only), which means that the background levels of those pollutants are at times higher than the ambient air quality standards. The air quality standards were set to protect public health, including the health of sensitive individuals (such as children the elderly, and persons with pre-existing respiratory or

cardiovascular illnesses [the infirm]). Therefore, when the concentration of those pollutants exceeds the standard, it is likely that some sensitive individuals in the population would experience adverse health effects. Since the air basin is already non-attainment, it is considered to have an existing significant cumulative health impact without the Project. The issue is whether the Project's contribution to the existing violation of air quality standards is cumulatively considerable.

The SJVAPCD, through its GAMAQI, has determined that projects that exceed regional thresholds would have a cumulatively considerable health impact. As demonstrated in Table 2-6 and Table 2-7, the Project would not exceed the SJVAPCD's significance thresholds and its cumulatively considerable impacts would be less than significant.

CONSTRUCTION EMISSIONS

The results of the modeling are presented in Table 2-6. The emissions that would occur during construction activities were compared with the significance threshold for each pollutant. For assumptions in estimating the emissions, please refer to Appendix A. As shown in Table 2-6, the emissions are below the significance thresholds. Therefore, the emissions would be less than significant on a Project basis.

Table 2-6: Construction Emission Summary, Criteria Air Pollutants

	Emissions (in tons per year)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Maximum Annual Emissions	0.241	1.658	2.037	0.004	0.31	0.168
Significance Threshold	10	10	100	27	15	15
Significant Impact?	No	No	No	No	No	No
Source: Appendix A						

OPERATIONAL EMISSIONS

Operational emissions occur over the lifetime of the Project and would depend on the source. Sources could include but not be limited to area sources, motor vehicles, or mobile sources. The SJVAPCD considers construction and operational emissions separately when making significance determinations.

The emissions that would occur during operations were also compared with the significance threshold for each pollutant. For assumptions in estimating the emissions, please refer to Appendix A. As shown in Table 2-7, the emissions are below the significance thresholds. Therefore, the emissions would be less than significant on a Project basis.

Table 2-7: Operational Emissions Summary, Criteria Air Pollutants

	Emissions (in tons per year)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Maximum Annual Emissions	0.349	0.253	1.559	0.004	0.31	0.083
Significance Threshold	10	10	100	27	15	15
Significant Impact?	No	No	No	No	No	No
Source: Appendix A						

2.5.3 SENSITIVE RECEPTORS

Impact AIR-3: The project would not expose sensitive receptors to substantial pollutant concentrations.

2.5.3.1 IMPACT ANALYSIS

SENSITIVE RECEPTORS

Those who are sensitive to air pollution include children, the elderly, and persons with pre-existing respiratory or cardiovascular illness. The District considers a sensitive receptor a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools. The closest offsite sensitive receptors are several rural residences adjacent to the Project site. For criteria pollutants, impacts to receptors are based on emissions during the highest daily emissions during construction and operations. As shown in Table 2-8, emissions generated from construction and operation of the Project are less than SJVAPCD screening criteria. Therefore, this impact would be less than significant.

LOCALIZED POLLUTANT SCREENING ANALYSIS

Emissions occurring at or near the Project have the potential to create a localized impact, also referred to as an air pollutant hotspot. Localized emissions are considered significant if, when combined with background emissions, they would result in exceedance of any health-based air quality standard. The impact from localized pollutants is based on the impact to the nearest sensitive receptor.

The SJVAPCD's GAMAQI includes screening thresholds for identifying projects that need detailed analysis for localized impacts. Projects with on-site emission increases from construction activities or operational activities that exceed the 100 pounds per day screening level of any criteria pollutant after compliance with applicable rules and regulations and implementation of all enforceable mitigation measures would require preparation of an ambient air quality analysis. The criteria pollutants of concern for localized impact in the Air Basin are PM_{10}, $PM_{2.5}$, NO_X, and CO.

The results of the construction and operation screening analysis are presented in Table 2-8. No constituents are shown to exceed 100 pounds per day during project operations; therefore, it is assumed that there would not be a localized impact.

Table 2-8: Maximum Daily Construction and Operational Emissions, Criteria Air Pollutants

Source	Daily Emissions (in Pounds)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Construction	16.68	29.22	29.41	0.06	20.99	11.26
Operations	2.46	2.81	20.96	0.05	4.20	1.10
SJVAPCD Screening Thresholds	100	100	100	100	100	100
Source: Appendix A						

VALLEY FEVER

Valley fever, or coccidioidomycosis, is an infection caused by inhalation of the spores of the fungus, *Coccidioides immitis (C. immitis)*. The spores live in soil and can live for an extended time in harsh environmental conditions. Activities or conditions that increase the amount of fugitive dust contribute to greater exposure, and they include dust storms, grading, and recreational off-road activities.

The Centers for Disease Control and Prevention indicates that 752 of the 8,657 persons (8.7 percent) hospitalized in California between 2000 and 2007 for Valley fever died.[5] California experienced a record number of Valley Fever cases in 2019 with 9,090 new cases. The San Joaquin Valley is considered an endemic area for Valley fever. Within the region, Fresno County reported an infection risk of greater than 39.8 per 100,000.[6]

[5] (Centers for Disease Control and Prevention 2009)
[6] (California Department of Public Health 2022)

The distribution of *C. immitis* within endemic areas is not uniform and growth sites are commonly small (a few tens of meters) and widely scattered. Known sites appear to have some ecological factors in common suggesting that certain physical, chemical, and biological conditions are more favorable for *C. immitis growth*. Avoidance, when possible, of sites favorable for the occurrence of *C. immitis* is a prudent risk management strategy. Listed below are ecologic factors and sites favorable for the occurrence of *C. immitis*:

- *Rodent burrows (often a favorable site for C. immitis, perhaps because temperatures are more moderate and humidity higher than on the ground surface)*
- *Old (prehistoric) Indian campsites near fire pits*
- *Areas with sparse vegetation and alkaline soils*
- *Areas with high salinity soils*
- *Areas adjacent to arroyos (where residual moisture may be available)*
- *Packrat middens*
- *Upper 30 centimeters of the soil horizon, especially in virgin undisturbed soils*
- *Sandy, well-aerated soil with relatively high water-holding capacities*

Sites within endemic areas less favorable for the occurrence of C. immitis include:

- *Cultivated fields*
- *Heavily vegetated areas (e.g. grassy lawns)*
- *Higher elevations (above 7,000 feet)*
- *Areas where commercial fertilizers (e.g. ammonium sulfate) have been applied*
- *Areas that are continually wet*
- *Paved (asphalt or concrete) or oiled areas*
- *Soils containing abundant microorganisms*
- *Heavily urbanized areas where there is little undisturbed virgin soil (USGS 2000)*

The Project site is situated within Tulare County and therefore could have a potential to encounter *C. immitis* during construction. Construction activities would generate fugitive dust that could contain *C. immitis* spores, but through proper mitigation the potential of Valley fever impacts would be less than significant. Subsequent development would be subject to the preparation and implementation of a Dust Control Plan, which would minimize the amount of fugitive dust generated during construction activities by requiring the stabilization of dirt during ground disturbance activities.

During operations, dust emissions are anticipated to be negligible, because most of the Project area would be occupied by buildings, pavement, and landscaped areas. This condition would preclude the possibility of the Project from providing habitat suitable for *C. immitis* spores and for generating fugitive dust that may contribute to Valley fever exposure. Impacts would be less than significant.

DIESEL PARTICULATE MATTER (DPM)

DPM can be of particular concern as Project construction occurs as it is emitted from the combustion of diesel fuel. Because construction equipment is often used for lengths of time within close proximity to existing sensitive receptors, there is a concern that the increase in DPM emissions could cause localized health risk. Additionally, with projects that involve daily diesel trips, there is a potential for long-term DPM-related health risks. It should be noted that CARB has developed several plans and programs to reduce diesel emissions such as the Diesel Risk Reduction Plan, the Statewide Portable Equipment Registration Program, and the Diesel Off-Road Reporting System.

GASOLINE DISPENSING FACILITIES (GDF)

Gasoline dispending facilities (GDFs) are known to emit hazardous air pollutants related to loading, breathing, fueling, accidental spillage, and hose permeation from storage tanks and related dispensing equipment. Known hazardous air pollutants include benzene, ethyl benzene, n-hexane, naphthalene, propylene, toluene, and xylenes.

As discussed in Section 2.4.1 and Section 2.4.2, the HARP ADMRT was used to identify potential impacts to sensitive receptors. Cancer, chronic, and acute health impacts were found to be less than significant, as shown below in Table 2-9.

Table 2-9: Health Risk of Maximum Exposed Individual Receptor

Source	Health Risk		
	Cancer	Chronic	Acute
Construction	12.13	0.001	0
Operations	7.61	0.065	0.429
Total Exposure	**19.74**	**0.066**	**0.429**
SJVAPCD Significance Thresholds	20	1	1
Exceed Thresholds?	**No**	**No**	**No**
[1] Operations includes Diesel Truck Travel and Gasoline Dispensing Facility Source: Appendix A			

2.5.4 OBJECTIONABLE ODORS

Impact AIR-4: The project would not create objectionable odors affecting a substantial number of people.

2.5.4.1 IMPACT ANALYSIS

Construction of the Project would require the use of diesel-powered off-road construction equipment; however, these emissions would not occur continuously and would cease after construction concludes. The Project would not engage in any of the activities listed in Table 2-4, such as landfills, transfer stations, sewage treatment plants, wastewater pump stations, composting facilities, feed lots, coffee roaster, asphalt batch plants, and rendering plants, among other uses. The Project would therefore have a less significant impact with respect to generation of emissions leading to odors or other adverse or objectionable emissions.

3 ENERGY

3.1 REGULATORY SETTING

3.1.1 FEDERAL

3.1.1.1 FEDERAL REGULATIONS FOR GREENHOUSE GAS EMISSIONS FROM PASSENGER CARS AND TRUCKS AND CORPORATE AVERAGE FUEL ECONOMY STANDARDS

In October 2012, the USEPA and National Highway Traffic Safety Administration (NHSTA), on behalf of the United States Department of Transportation (USDOT), issued final rules to further reduce greenhouse gas (GHG) emissions and improve corporate average fuel economy (CAFE) standards for light-duty vehicles for model years 2017 and beyond. NHTSA's CAFE standards have been enacted under the Energy Policy and Conservation Act since 1978. This national program requires automobile manufacturers to build a single light-duty national fleet that meets all requirements under both federal programs and the standards of California and other states. This program would increase fuel economy to the equivalent of 54.5 miles per gallon (mpg) limiting vehicle emissions to 163 grams of carbon dioxide (CO2) per mile for the fleet of cars and light-duty trucks by the model year 2025. In January 2017, USEPA Administrator Gina McCarthy signed a Final Determination to maintain the current GHG emissions standards for the model year 2022-2025 vehicles. However, on March 15, 2017, USEPA Administrator Scott Pruitt and USDOT Secretary Elaine Chao announced that USEPA intends to reconsider the Final Determination. On April 2, 2018, USEPA Administrator Scott Pruitt officially withdrew the January 2017 Final Determination, citing information that suggests that these current standards may be too Energy Policy and Conservation Act of 1975 and Corporate Average Fuel Standards stringent due to changes in key assumptions since the January 2017 Determination. According to the USEPA, these key assumptions include gasoline prices and overly optimistic consumer acceptance of advanced technology vehicles. The April 2, 2018, notice is not USEPA's final agency action. The USEPA intends to initiate rulemaking to adopt new standards. Until that rulemaking has been completed, the current standards remain in effect.

3.1.1.2 ENERGY POLICY AND CONSERVATION ACT

The Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the United States would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the U.S. Pursuant to the Act, the NHSTA, which is part of the U.S. DOT, is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 mpg. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 miles per gallon (mpg). Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is determined based on each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the U.S. The CAFE program, administered by USEPA, was created to determine vehicle manufacturers' compliance with the fuel economy standards. USEPA calculates a CAFE value for each manufacturer based on city and highway fuel economy test results and vehicle sales. Based on the information generated under the CAFE program, the U.S. DOT is authorized to assess penalties for noncompliance.

3.1.1.3 ENERGY POLICY ACT OF 1992

The Energy Policy Act of 1992 (EPAct) was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. EPAct requires certain federal, state, and local government and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are included in EPAct. Federal tax deductions will be allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the act to consider a variety of incentive programs to help promote AFVs.

ENERGY POLICY ACT OF 2005

The Energy Policy Act of 2005 was intended to establish a comprehensive, long-term energy policy and is implemented by the U.S. Department of Energy. This act addressed energy production in the U.S., including oil, natural gas, coal and alternative forms of energy, and energy efficiency and tax incentives. The energy efficiency and tax incentive programs include credits for the construction of new energy-efficient homes, production or purchase of energy efficient appliances, and loan guarantees for entities that develop or use innovative technologies that avoid production of greenhouse gases (GHGs). Some of these programs have expired. Solar tax credits for residential and commercial systems are 26% in 2020, 22% in 2021, and 10% for commercial systems only from 2022 onwards.

3.1.2 STATE

3.1.2.1 THE WARREN-ALQUIST ACT OF 1975

The Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as the California Energy Commission (CEC). The Act established a State policy to reduce wasteful, uneconomical, and unnecessary uses of energy by employing a range of measures. The California Public Utilities Commission (CPUC) regulates privately-owned utilities in the energy, rail, telecommunications, and water fields.

3.1.2.2 ASSEMBLY BILL 2076: REDUCING DEPENDENCE ON PETROLEUM

Pursuant to Assembly Bill (AB) 2076 (Chapter 936, Statutes of 2000), the CEC and CARB prepared and adopted a joint agency report in 2003, Reducing California's Petroleum Dependence. Included in this report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita VMT.61 Further, a performance-based goal of AB 2076 was to reduce petroleum demand to 15 percent below 2003 demand by 2020.

3.1.2.3 ENERGY ACTION PLAN

The first Energy Action Plan (EAP) emerged in 2003 from a crisis atmosphere in California's energy markets. The State's three major energy policy agencies (CEC, CPUC, and the Consumer Power and Conservation Financing Authority [established under deregulation and now defunct]) came together to develop one high level, coherent approach to meeting California's electricity and natural gas needs. It was the first time that energy policy agencies formally collaborated to define a common vision and set of strategies to address California's future energy needs and emphasize the importance of the impacts of energy policy on the California environment.

In the October 2005 EAP II, CEC, and CPUC updated their energy policy vision by adding some important dimensions to the policy areas included in the original EAP, such as the emerging importance of climate change, transportation-related energy issues, and research and development activities. The CEC adopted an update to the EAP II in February 2008 that supplements the earlier EAPs and examines the State's ongoing actions in the context of global climate change.

3.1.2.4 ASSEMBLY BILL 1007: STATE ALTERNATIVE FUELS PLAN

AB 1007 (Chapter 371, Statues of 2005) required CEC to prepare a state plan to increase the use of alternative fuels in California. CEC prepared the State Alternative Fuels (SAF) Plan in partnership with CARB and consultation with other State, federal, and local agencies. The SAF Plan presents strategies and actions California must take to increase the use of alternative non-petroleum fuels in a manner that minimizes the costs to California and maximizes the economic benefits of in-state production. The SAF Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuel use, reduce GHG emissions, and increase in-state production of biofuels without causing significant degradation of public health and environmental quality.

3.1.2.5 EXECUTIVE ORDER S-06-06

EO S-06-06, signed on April 25, 2006, establishes targets for the use and production of biofuels and biopower and directs state agencies to work together to advance biomass programs in California while providing environmental protection and mitigation. The EO establishes the following target to increase the production and use of bioenergy, including ethanol and biodiesel fuels made from renewable resources: produce a minimum of 20 percent of its biofuels within California by 2010, 40 percent by 2020, and 75 percent by 2050. The EO also calls for the State to meet a target for use of biomass electricity. The Bioenergy Action Plans developed by the CEC to identify those barriers and recommend actions to address them so that the State can meet its clean energy, waste reduction, and climate protection goals. The 2012 Bioenergy Action Plan provides a detailed action plan to achieve the following goals:

- increase environmentally- and economically-sustainable energy production from organic waste;
- encourage the development of diverse bioenergy technologies that increase local electricity generation, combined heat and power facilities, renewable natural gas, and renewable liquid fuels for transportation and fuel cell applications;
- create jobs and stimulate economic development, especially in rural regions of the state; and
- reduce fire danger, improve air and water quality, and reduce waste.

In 2019, 2.87 percent of the total electrical system power in California was derived from biomass (CEC 2020).

3.1.2.6 ASSEMBLY BILL 32: CLIMATE CHANGE SCOPING PLAN AND UPDATE

In October 2008, CARB published its Climate Change Proposed Scoping Plan, which is the State's plan to achieve GHG reductions in California as required by AB 32. This initial Scoping Plan contained the main strategies to be implemented to achieve the target emission levels identified in AB 32. The Scoping Plan included CARB-recommended GHG reductions for each emissions sector of the state's GHG inventory. The largest proposed GHG reduction recommendations were associated with improving emissions standards for light-duty vehicles, implementing the Low Carbon Fuel Standard program, implementation of energy efficiency measures in buildings and appliances, the widespread development of combined heat and power systems, and developing a renewable portfolio standard for electricity production.

CARB approved the initial Scoping Plan on December 11, 2008; the Plan is updated every five years. CARB approved the first update of the Scoping Plan on May 22, 2014; the updated Plan looked past 2020 to set mid-term goals (2030-2035) on the road to reaching the 2050 goals (ARB 2014). The most recent update is the 2022 Climate Change Scoping Plan, which CARB released in December 2022. The measures identified in the 2022 Climate Change Scoping Plan have the co-benefit of increasing energy efficiency and reducing California's dependency on fossil fuels.

3.1.2.7 ADVANCED CLEAN CARS PROGRAM

In January 2012, CARB approved the Advanced Clean Cars program which combines the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of zero-emission vehicles, into a single package of standards for vehicle model years 2017 through 2025. The new rules strengthen the GHG standard for 2017 models and beyond. This will be achieved through existing technologies, the use of stronger and lighter materials, and more efficient drivetrains and engines. The program's zero emission vehicle regulation requires a battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025. The program also includes a clean fuels outlet regulation designed to support the commercialization of zero-emission hydrogen fuel cell vehicles planned by vehicle manufacturers by 2015 by requiring increased numbers of hydrogen fueling stations throughout the state. The number of stations will grow as vehicle manufacturers sell more fuel cell vehicles. By 2025,

when the rules will be fully implemented, the statewide fleet of new cars and light trucks will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions than the statewide fleet in 2016.

3.1.2.8 SENATE BILL 350: CLEAN ENERGY AND POLLUTION PREVENTION REDUCTION ACT OF 2015

The Clean Energy and Pollution Reduction Act of 2015 (SB 350) requires the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources to be increased to 50 percent by December 31, 2030. This act also requires a doubling of the energy efficiency savings in electricity and natural gas for retail customers through energy efficiency and conservation by December 31, 2030.

3.1.2.9 SENATE BILL 32 AND ASSEMBLY BILL 197 OF 2016

SB 32 was signed by Governor Brown on September 8, 2016. SB 32 effectively extends California's GHG emission-reduction goals from the year 2020 to the year 2030. This new emission-reduction target of 40 percent below 1990 levels by 2030 is intended to promote further GHG reductions in support of the State's ultimate goal of reducing GHG emissions by 80 percent below 1990 levels by 2050. SB 32 also directs CARB to update the Climate Change Scoping Plan to address this interim 2030 emission-reduction target. Achievement of these goals will have the co-benefit of increasing energy efficiency and reducing California's dependency on fossil fuels.

3.1.2.10 SENATE BILL 100

SB 100 The 100 Percent Clean Energy Act of 2018, which sets a State policy that eligible renewable energy and zero-carbon resources supply 100 percent (%) of all retail sales of electricity in California by 2045.

3.1.2.11 EXECUTIVE ORDER B-48-18: ZERO-EMISSION VEHICLES

In January 2018, Governor Brown signed EO B-48-18 which required all State entities to work with the private sector to put at least 5 million zero-emission vehicles on the road by 2030, as well as install 200 hydrogen fueling stations and 250,000 zero-emissions chargers by 2025. In addition, State entities are also required to continue to partner with local and regional governments to streamline the installation of zero emission vehicle infrastructure. Additionally, all State entities are to support and recommend policies and actions to expand infrastructure in homes, through the Low-Carbon Fuel Standard.

3.1.2.12 EXECUTIVE ORDER B-55-18

Establishes a new statewide goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter.

3.1.2.13 SENATE BILL 375

SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will address land use allocation in that MPOs regional transportation plan (RTP). ARB, in consultation with MPOs, establishes regional reduction targets for GHGs emitted by passenger cars and light trucks for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, funding for transportation projects may be withheld.

3.1.2.14 SENATE BILL 1078: CALIFORNIA RENEWABLES PORTFOLIO STANDARD PROGRAM

Senate Bill (SB) 1078 (Public Utilities Code Sections 387, 390.1, 399.25, and Article 16) addresses electricity supply and requires that retail sellers of electricity, including investor-owned utilities and community choice

aggregators, provide a minimum of 20 percent of their supply from renewable sources by 2017. This SB will affect statewide GHG emissions associated with electricity generation. In 2008, Governor Schwarzenegger signed Executive Order (EO) S-14-08, which set the Renewables Portfolio Standard (RPS) target to 33 percent by 2020. It directed state government agencies and retail sellers of electricity to take all appropriate actions to implement this target. EO S-14-08 was later superseded by EO S-21-09 on September 15, 2009. EO S-21-09 directed CARB to adopt regulations requiring 33 percent of electricity sold in the State to come from renewable energy by 2020. Statute SB X1-2 superseded this EO in 2011, which obligated all California electricity providers, including investor-owned utilities and publicly owned utilities, to obtain at least 33 percent of their energy from renewable electrical generation facilities by 2020.

3.1.2.15 CALIFORNIA BUILDING CODE

The CBC contains standards that regulate the method of use, properties, performance, or types of materials used in the construction, alteration, improvement, repair, or rehabilitation of a building or other improvements to real property. The CBC is adopted every three years by the Building Standards Commission (BSC). In the interim, the BSC also adopts annual updates to make necessary mid-term corrections. The CBC standards apply statewide; however, a local jurisdiction may amend a CBC standard if it makes a finding that the amendment is reasonably necessary due to local climatic, geological, or topographical conditions.

3.1.2.16 GREEN BUILDING STANDARDS

In essence, green building standards are indistinguishable from any other building standards, are contained in the CBC, and regulate the construction of new buildings and improvements. Whereas the focus of traditional building standards has been protecting public health and safety, the focus of green building standards is to improve environmental performance. The recently updated 2022 Building Energy Efficiency Standards, which were approved in December 2021, encourage efficient electric heat pumps, establish electric-ready requirements when natural gas is installed, support the future installation of battery storage, further expand solar photovoltaic and battery storage standards. These standards extend solar PV system requirements, as well as battery storage capabilities for select land uses, including high-rise multi-family and non-residential land uses, such as office buildings, schools, restaurants, warehouses, theaters, grocery stores, and more. Depending on the land use and other factors, solar systems should be sized to meet targets of up to 60 percent of the structure's loads. These new solar requirements will become effective on January 1, 2023, and contribute to California's goal of reaching a net-zero carbon footprint by 2045.

3.1.3 LOCAL

The following polices and goals from Tulare's General Plan will apply to the Project:

AQ-3.5 Alternative Energy Design:

The County shall encourage all new development, including rehabilitation, renovation, and redevelopment, to incorporate energy conservation and green building practices to the maximum extent feasible. Such practices include, but are not limited to: building orientation and shading, landscaping, and the use of active and passive solar heating and water systems.

LU-7.15 Energy Conservation:

The County shall encourage the use of solar power and energy conservation building techniques in all new development.

ERM-4.1 Energy Conservation and Efficiency Measures:

The County shall encourage the use of solar energy, solar hot water panels, and other energy conservation and efficiency features in new construction and renovation of existing structures in accordance with State law.

ERM-4.2 Streetscape and Parking Area Improvements for Energy Conservation:
The County shall promote the planting and maintenance of shade trees along streets and within parking areas of new urban development to reduce radiation heating.
ERM-4.3 Local and State Programs:
The County shall participate, to the extent feasible, in local and State programs that strive to reduce the consumption of natural or man-made energy sources.

ERM-4.4 Promote Energy Conservation Awareness:
The County should coordinate with local utility providers to provide public education on energy conservation programs.

ERM-4.6 Renewable Energy:
The County shall support efforts, when appropriately sited, for the development and use of alternative energy resources, including renewable energy such as wind and solar, biofuels and co-generation.

ERM-4.8 Energy Efficiency Standards:
The County shall encourage renovations and new development to incorporate energy efficiency and conservation measures that exceed State Title 24 standards. When feasible, the County shall offer incentives for use of energy reduction measures such as expedited permit processing, reduced fees, and technical assistance.

3.2 ENVIRONMENTAL SETTING

There are two energy providers that provide electricity and natural gas for Tulare County. Southern California Edison (SCE) provides energy for the majority of the County, while PG&E provides electric services to the northern end of the County as needed. The electric services are provided by a series of overhead lines and underground lines. Natural gas is provided by The Gas Company.

3.3 METHODOLOGY

For natural gas and electricity consumption under buildout of the land use scenario envisioned by the Project, consumption factors were drawn from the California Emissions Estimator Model (CalEEMod) Version 2022.1.1.30. The CalEEMod data is provided in Appendix A.

3.4 IMPACT ANALYSIS

3.4.1 WASTEFUL, INEFFICIENT, OR UNNECESSARY CONSUMPTION OF ENERGY RESOURCES

Impact NRG-1: The project would not result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

3.4.1.1 IMPACT ANALYSIS

CONSTRUCTION

Based on CalEEMod estimations within the modeling output files, construction-related vehicle trips would consume an estimated 53,155 gallons of gasoline, natural gas, and diesel combined. Limitations on idling of vehicles and equipment and requirements that equipment be properly maintained would result in fuel savings. California Code of Regulations, Title 13, Sections 2449 and 2485, limit idling from both on-road and off-road diesel-powered equipment and are enforced by the ARB. Additionally, given the cost of fuel in California, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction. Due to the temporary nature of construction and the financial incentives for developers and contractors to use energy-consuming resources in an efficient

manner, the construction phase of the proposed Project would not result in wasteful, inefficient, and unnecessary consumption of energy.

OPERATIONS

Operation of the Project would consume energy as part of building operations and transportation activities. Building operations would involve energy consumption for multiple purposes including, but not limited to, building heating and cooling, refrigeration, lighting, and electronics. Based on the CalEEMod outputs, operations for the Project would result in approximately 742,597 kBTU/year of natural gas and 1,501,032 kWh/year of electricity.

The Project would be designed and constructed in accordance with the County's latest adopted energy efficiency standards, which are based on the California Title 24 energy efficiency standards. Title 24 standards include a broad set of energy conservation requirements that apply to the structural, mechanical, electrical, and plumbing systems in a building. For example, the Title 24 Lighting Power Density requirements define the maximum wattage of lighting that can be used in a building based on its square footage. Title 24 standards are widely regarded as the most advanced energy efficiency standards, would help reduce the amount of energy required for lighting, water heating, and heating and air conditioning in buildings and promote energy conservation. As a result, impacts would be less than significant.

3.4.2 CONSISTENCY WITH STATE OR LOCAL PLANS FOR RENEWABLE ENERGY OR ENERGY EFFICIENCY

Impact NRG-2: The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

As discussed above, the Project would result in energy consumption through the combustion of fossil fuels in construction vehicles, worker commute vehicles, and construction equipment, and the use of electricity for buildings, lighting, and other sources. California Code of Regulations Title 13, Sections 2449 and 2485, limit idling from both on-road and off-road diesel-powered equipment and are enforced by the ARB. Title 24 imposes energy efficiency and renewable energy requirements on new development. The Project would comply with these regulations. Thus, it is anticipated that the Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing energy use or increasing the use of renewable energy.

4 GREENHOUSE GASES

Climate change is a change in the average weather of the earth that is measured by alterations in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes occurring in the past, such as during previous ice ages. Many of the concerns regarding climate change use this data to extrapolate a level of statistical significance, specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

The United Nations Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. In its Fourth Assessment Report, the IPCC predicted that the global mean temperature change from 1990 to 2100, given six scenarios, could range from 1.1 degrees Celsius (°C) to 6.4°C. Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios.[7] The report also concluded that "[w]arming of the climate system is unequivocal," and that "[m]ost of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations."

An individual project cannot generate enough GHG emissions to cause a discernible change in global climate. However, the Project participates in the potential for global climate change by its incremental contribution of GHGs—and when combined with the cumulative increase of all other sources of GHGs—constitute potential influences on global climate change.

4.1 REGULATORY SETTING

4.1.1 FEDERAL

4.1.1.1 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (US EPA)

"On December 7, 2009, the Administrator signed two distinct findings regarding greenhouse gases under section 202(a) of the Clean Air Act:

- Endangerment Finding: The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases – carbon dioxide (CO2), methane (CH4), nitrous dioxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6) – in the atmosphere threaten the public health and welfare of current and future generations.
- Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare."

FEDERAL CLEAN AIR ACT

EPA is the federal agency responsible for executing the federal Clean Air Act (CAA) and its amendments. In 2007, the U.S. Supreme Court ruled that carbon dioxide (CO_2) is an air pollutant, as defined under the CAA, and thus the EPA has the authority to regulate GHG emissions. The ruling resulted in the EPA taking steps to regulate GHG emissions and lend support to State and local agency in their efforts to reduce GHG emissions.

FEDERAL REGULATIONS FOR VEHICLE FUEL ECONOMY STANDARDS

The EPA and the National Highway Traffic Safety Administration (NHTSA) in 2012 issued final rules to reduce GHG emissions and improve the Corporate Average Fuel Economy (CAFE) standards for light-duty vehicles

[7] (Intergovernmental Panel on Climate Change 2007)

of model years 2017 and beyond. These CAFE standards have been enacted since 1978 under the Energy Policy and Conservation Act. This program requires automobile manufacturers to build a single nation light-duty fleet that meets both the requirements under federal programs and those of California and other states. This program would improve fuel economy to 54.5 miles per gallon-equivalent, limiting vehicle emissions to 153 grams of CO_2 per mile for the fleet of cars and light-duty trucks by model year 2025, which represents five percent annual increases in fuel economy.

The EPA and NHTSA jointly published in 2018 a notice of proposed rulemaking entitled "The Safer Affordable Fuel-Efficient Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks" (SAFE Rule), which proposed:

(1) new and amended CO_2 and CAFE standards for passenger cars and light trucks;
(2) to withdraw the waiver EPA had previously provided to California for that State's GHG and zero emission vehicle (ZEV) programs under Section 209 of the Clean Air Act, and;
(3) regulatory text to implement NHTSA's statutory authority to set nationally applicable fuel economy standards to explicitly preempt California's GHG and ZEV programs.

In 2019, Part One of the SAFE Rule (One National Program) became effective, which withdrew California's waiver from EPA and finalized NHTSA's regulatory text related to preemption of State regulations. In 2020, EPA and NHTSA announced Part Two of the SAFE Rule, which would establish amended fuel economy and CO_2 standards for passenger cars and light trucks of model years 2021-2026. These revised standards would increase in stringency by 1.5 percent per year from model year 2020 over model years 2021-2026.

4.1.2 STATE

4.1.2.1 EXECUTIVE ORDER S-3-05

In 2005, Governor Schwarzenegger issued EO S-3-05, proclaiming that California is vulnerable to the impacts of climate change. The EO declares that increasing temperatures could reduce the Sierra Nevada snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To address those concerns, the EO established GHG emission targets for the State and identified responsibilities for State agencies in meeting the targets. Specifically, statewide emissions are to be reduced to 2000 levels by 2010, 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.

4.1.2.2 ASSEMBLY BILL 32

In 2006, AB 32, the California Global Warming Solutions Act of 2006, was signed into law. AB 32 establishes regulations, reporting requirements, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 also requires that:

"(a) the statewide greenhouse gas emissions limit shall remain in effect unless otherwise amended or repealed.
(b) It is the intent of the Legislature that the statewide greenhouse gas emissions limit continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020.
(c) The [CARB] shall make recommendations to the Governor and the Legislature on how to continue reductions of greenhouse gas emissions beyond 2020. [California Health and Safety Code, Division 25.5, Part 3, Section 38551]

4.1.2.3 EXECUTIVE ORDER B-30-15

In 2015, Governor Brown issued EO B-30-15 which established a California GHG reduction target of 40 percent below 1990 levels by 2030. This emission reduction target of 40 percent below 1990 levels by 2030 set the next interim step in the State's continuing efforts to pursue the long-term target previously established under EO S-3-05 to reach the goal of reducing emissions 80 percent below 1990 levels by 2050.

This is consistent with scientifically established levels needed in the U.S. to limit global warming below 2 degrees Celsius, the threshold at which major climate disruptions are projected, such as super droughts and rising sea levels.

4.1.2.4 SENATE BILL 32

In 2016, SB 32 was signed into law and serve to extend California's GHG reduction programs beyond 2020. SB 32 amended existing regulations to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030, codifying the 2030 target established by EO B-30-15.

4.1.2.5 ASSEMBLY BILL 1493 (PAVLEY)

AB 1493, enacted in 2002, requires the reduction of GHGs from automobiles and light-duty trucks to the maximum extent feasible and cost-effective. In 2004, CARB approved the "Pavley I" regulations that applied to new passenger vehicles beginning with model year 2009 through 2016. Pavley I was anticipated to reduce GHG emissions from regulated vehicles by 30 percent from 2002 levels by 2016. Pavley II was incorporated into Amendments to the Low-Emission Vehicle Program referred to as LEV III. The amendments, which took effect in 2012, apply to vehicles for model years 2017 through 2025. The regulation will reduce GHGs from new cars by 34 percent from 2016 levels by 2025.

4.1.2.6 ADVANCED CLEAN CARS PROGRAM

Also in 2012, CARB approved the Advanced Clean Cars program which sought to combine the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of zero-emission vehicles, into a single package of regulatory standards for vehicle model years 2017 through 2025. These regulations strengthen the GHG standard for 2017 models and beyond and would be achieved through existing and more efficient technologies. The program's ZEV regulation would require battery, fuel cell, and/or plug-in hybrid electric vehicles to comprise up to 15 percent of California's new vehicle sales by 2025. The program also included a clean fuels outlet regulation designed to support the development of zero-emission hydrogen fuel cell vehicles by requiring increased numbers of hydrogen fueling stations throughout the state. By 2025, when it was assumed, the rules would be fully implemented, the statewide fleet of new cars and light trucks would emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions than the statewide fleet in 2016.

4.1.2.7 SENATE BILL 100

In 2018, SB 100 increased California's Renewable Energy Portfolio targets for utility companies to 52 percent renewables by 2027 and 60 percent renewables by 2030. It also established a new zero-carbon electricity mandate by 2040.

4.1.2.8 CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS (TITLE 24, PART 6)

California Code of Regulations (CCR), Title 24, Part 6, is California's Energy Efficiency Standards for Residential and Non-Residential Buildings. Title 24 Part 6 was established by California Energy Commission (CEC) in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy-efficiency standards for residential and non-residential buildings. These standards are updated triennially and have resulted in substantial gains in energy efficiency in new construction with each code update cycle.

The 2022 Title 24 Part 6 Building Energy Efficiency Standards were adopted by CEC in 2021 and took effect in 2023. The standards are designed to move the State closer to its zero net energy goals for new residential development. It does so by requiring all new residences to install enough renewable energy to offset all the site electricity needs of each residential unit. CEC estimates that the 2022 Energy Code would provide $1.5 billion in consumer benefits and reduce 10 million metric tons of GHGs.[8]

[8] (California Energy Commission 2021)

The Title 24 Building Energy Efficiency Standards are enforced through the local plan check and building permit process. Local government agencies may adopt and enforce additional energy standards for new buildings as reasonably necessary in response to local climatologic, geologic, or topographic conditions, provided that these standards are demonstrated to be cost effective and exceed the energy performance required by Title 24 Part 6.

4.1.2.9 CALIFORNIA GREEN BUILDING STANDARDS (TITLE 24, PART 11)

In 2008, the California Building Standards Commission adopted Part 11 of CCR Title 24, titled the California Green Building Standards Code (CALGreen Code) which became effective in 2009 as a voluntary code. The 2010 CALGreen Code was the first mandatory edition and took effect in 2011 and is now a part of the triennial code update cycle. The CALGreen Code establishes mandatory measures for residential and non-residential building construction and encourages sustainable construction practices in the following five categories: (1) planning and design, (2) energy efficiency, (3) water efficiency and conservation, (4) material conservation and resource efficiency, and (5) indoor environmental quality. Although the CALGreen Code was adopted as part of the State's efforts to reduce GHG emissions, the CALGreen Code standards have co-benefits of reducing energy consumption from residential and non-residential buildings subject to the standard.

4.1.2.10 SENATE BILL 97

SB 97, enacted in 2007, amended the CEQA statute to clearly establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. The legislation directed the California Office of Planning and Research to develop draft CEQA Guidelines "for the mitigation of GHG emissions or the effects of GHG emissions" and directed the California Natural Resources Agency to certify and adopt the State CEQA Guidelines. CEQA Guidelines Section 15183.5, Tiering and Streamlining the Analysis of GHG Emissions, was added as part of the CEQA Guideline amendments that became effective in 2010 and describes the criteria needed in a GHG reduction plan that would allow for the tiering and streamlining of CEQA analysis for development projects.

4.1.2.11 SENATE BILL X7-7

SB X7-7 requires water suppliers to reduce urban per capita water consumption 20 percent from a baseline level by 2020. The production and treatment of water, as well as the treatment of wastewater, requires substantial amount of electricity, and thus there this a direct relationship between water and greenhouse gases.

4.1.2.12 CALIFORNIA INTEGRATED WASTE MANAGEMENT ACT

To minimize the amount of solid waste that must be disposed of in landfills, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties were required to divert 25 percent of all solid waste from landfill facilities by 1995, and 50 percent by 2000. Through other statutes and regulations, this 50 percent diversion rate also applies to State agencies. In order of priority, waste reduction efforts must promote source reduction, recycling and composting, and environmentally safe transformation and land disposal.

In 2011, AB 341 modified the California Integrated Waste Management Act and directed the California Department of Resources Recycling and Recovery to develop and adopt regulations for mandatory commercial recycling. The resulting Mandatory Commercial Recycling Regulation (2012) requires that after 2012, certain businesses that generate four cubic yards or more commercial solid waste per week shall arrange recycling services. To comply with this requirement, businesses may either separate recyclables and self-haul them or subscribe to a recycling service that includes mixed waste processing. AB 341 also

established a statewide recycling goal of 75 percent; the 50 percent disposal reduction mandate still applies for cities and counties under AB 939, the Integrated Waste Management Act.

4.1.2.13 CLIMATE CHANGE SCOPING PLAN

In 2022, the CARB adopted the 2022 Scoping Plan, which provides a framework for achieving the State's 2030 GHG emissions reduction target of 40 percent below 1990 levels and substantially advance toward our 2045 climate goal to reduce GHG emissions by 85 percent below 1990 levels. The 2022 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, and implementation of recently adopted policies and legislation. The 2022 Scoping Plan includes a wide variety of goals related to energy efficiency and renewable energy that are intended to help meet the State's targets.[9]

4.1.2.14 CAP-AND-TRADE PROGRAM

The Cap-and-Trade program was developed to reduce GHG emissions from major emissions sources (covered entities) by setting a firm cap on statewide GHG emissions that is gradually reduced over time while employing market mechanisms to cost-effectively achieve the State's emission-reduction goals. It sets a statewide limit on sources responsible for 85 percent of California's GHG emissions, including electricity generators, large industrial facilities emitting a specified amount of annual emissions, and distributors of transportation, natural gas, and other fuels, and establishes a price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy. The program is designed to provide the approximately 450 entities covered by the program with the flexibility to seek out and implement the lowest cost options to reduce emissions. All covered entities are required to demonstrate compliance with the cap-and-trade program by implementing GHG reduction activities on-site or through use of free or purchased allowances, or purchase of offsets.

4.1.3 LOCAL

AQ-1.8 Greenhouse Gas Emissions Reduction Plan/Climate Action Plan:

The County will develop a Greenhouse Gas Emissions Reduction Plan (Plan) that identifies greenhouse gas emissions within the County as well as ways to reduce those emissions. The Plan will incorporate the requirements adopted by the California Air Resources Board specific to this issue. In addition, the County will work with the Tulare County Association of Governments and other applicable agencies to include the following key items in the regional planning efforts.

1. *Inventory all known, or reasonably discoverable, sources of greenhouse gases in the County,*
2. *Inventory the greenhouse gas emissions in the most current year available, and those projected for year 2020, and*
3. *Set a target for the reduction of emissions attributable to the County's discretionary land use decisions and its own internal government operations.*

AQ-1.9 Support Off-Site Measures to Reduce Greenhouse Gas Emissions:

The County will support and encourage the use of off-site measures or the purchase of carbon offsets to reduce greenhouse gas emissions.

AQ-3.4 Landscape:

The County shall encourage the use of ecologically based landscape design principles that can improve local air quality by absorbing CO2, producing oxygen, providing shade that reduces energy required for cooling, and filtering particulates. These principles include, but are not limited to, the incorporation of parks, landscaped medians, and landscaping within development.

[9] (California Air Resources Board 2022)

AQ-3.5 Alternative Energy Design:
The County shall encourage all new development, including rehabilitation, renovation, and redevelopment, to incorporate energy conservation and green building practices to the maximum extent feasible. Such practices include, but are not limited to: building orientation and shading, landscaping, and the use of active and passive solar heating and water systems.

LU-7.15 Energy Conservation:
The County shall encourage the use of solar power and energy conservation building techniques in all new development.

ERM-4.1 Energy Conservation and Efficiency Measures:
The County shall encourage the use of solar energy, solar hot water panels, and other energy conservation and efficiency features in new construction and renovation of existing structures in accordance with State law.

ERM-4.2 Streetscape and Parking Area Improvements for Energy Conservation:
The County shall promote the planting and maintenance of shade trees along streets and within parking areas of new urban development to reduce radiation heating.

ERM-4.3 Local and State Programs:
The County shall participate, to the extent feasible, in local and State programs that strive to reduce the consumption of natural or man-made energy sources.

ERM-4.4 Promote Energy Conservation Awareness:
The County should coordinate with local utility providers to provide public education on energy conservation programs.

ERM-4.6 Renewable Energy:
The County shall support efforts, when appropriately sited, for the development and use of alternative energy resources, including renewable energy such as wind and solar, biofuels and co-generation.

ERM-4.8 Energy Efficiency Standards:
The County shall encourage renovations and new development to incorporate energy efficiency and conservation measures that exceed State Title 24 standards. When feasible, the County shall offer incentives for use of energy reduction measures such as expedited permit processing, reduced fees, and technical assistance.

4.2 THRESHOLD OF SIGNIFICANCE

The County of Tulare prepared and adopted a Climate Action Plan in 2018 that can be used as a basis for determining project significance and were taken from the County's General Plan.[10]

In accordance with SJVAPCD's *CEQA Greenhouse Gas Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects,*[11] projects complying with Best Performance Standards (BPS) would be determined to have a less-than-significant impact. The SJVAPCD does not have an adopted threshold for GHGs; however, the South Coast Air Quality Management District (SCAQMD) has set a threshold of 3,000 $MTCO_2e$.[12] This threshold has been applied to this Project. Compliance with BPS and projects generating less than 3,000 $MTCO_2e$ per year would result in less than significant impacts. In addition,

[10] (County of Tulare 2018)
[11] (San Joaquin Valley Air Pollution Control District 2009)
[12] (South Coast Air Quality Management District 2008)

project-generated emissions complying with an approved plan or mitigation program would also be determined to have a less-than-significant impact.

4.3 METHODOLOGY

4.3.1 SHORT-TERM CONSTRUCTION-GENERATED EMISSIONS

Short-term construction emissions associated with the Project were calculated CalEEmod, Version 2022.1.1.30. These output files can be found in Appendix A. The sections below detail the methodology of the greenhouse gas emissions analysis and its conclusions. The emissions modeling includes emissions generated by off-road equipment, haul trucks, and worker commute trips.

4.3.2 LONG-TERM OPERATIONAL EMISSIONS

Operational emissions occur over the lifetime of the Project and are from three main sources: area sources, energy usage, and motor vehicles usage known as mobile sources. The Project is expected to commence operations as early as 2027 and was used as the Project buildout modeling year. Modeling assumptions and output files are included in Appendix A.

4.4 IMPACT ANALYSIS

4.4.1 GREENHOUSE GAS INVENTORY

Impact GHG-1: The project would generate direct and indirect greenhouse gas emissions; however, these emissions would not result in a significant impact on the environment.

4.4.1.1 IMPACT ANALYSIS

CONSTRUCTION

Total GHG emissions generated during all phases of construction were combined and are presented in Table 4-1. The SJVAPCD does not recommend assessing the significance of construction-related emissions. However, other jurisdictions, such as the SCAQMD, have concluded that construction emissions should be included since they may remain in the atmosphere for years after construction is complete. In order to account for the construction emissions, amortization of the total emissions generated during construction were based on the life of the development (30 years) and added to the operational emissions.

Table 4-1: Construction Emissions, Greenhouse Gases

	$MTCO_2e$
Total Construction Emissions	476.3
Amortized over 30 years	15.88

Notes:
Calculation totals use unrounded numbers from CalEEMod output.
Source: Appendix A

OPERATIONS

Total GHG emissions generated during operations are presented in Table 4-2. The amortized construction emissions have been added to the operational emissions generated by the Project. Project operations in 2030, which contains the County's GHG Target Goal, would result in approximately 2,479 $MTCO_2e$ resulting from operational activities. This falls below the County's CAP 2030 GHG Target Goal of 4.18 $MTCO_2e$ per capita, resulting in a less than significant impact.

Table 4-2: Operational Emissions, Greenhouse Gases

	$MTCO_2e$
2030 Operational Emissions	2,479
Amortized Construction Emissions	15.88

Threshold of Significance	3,000
Significant Impact?	No
Notes: Calculation totals use unrounded numbers from CalEEMod output. Source: Appendix A	

4.4.2 GREENHOUSE GAS REDUCTION PLANS

Impact GHG-2: The project would not conflict with any applicable plan, policy, or regulation of an agency adopted to reduce the emissions of greenhouse gases.

4.4.2.1 IMPACT ANALYSIS

ASSEMBLY BILL 32 SCOPING PLAN

The Scoping Plan contains a variety of strategies to reduce the State's emissions. As shown in Table 4-3, the project is consistent with most of the strategies, while others are not applicable to the project. As discussed earlier, the 2022 Scoping Plan Update strategies primarily rely on increasing the stringency of existing regulations with which the project would continue to comply, support through the project's design, and implementation of the General Plan goals and policies.

Table 4-3: AB 32 Consistency Table

Scoping Plan Strategy	Consistency Finding
Regulation for the California Cap on Greenhouse Gas Emissions and Market- Based Compliance Mechanism October 20, 2015 (CCR 95800)	**Not Applicable.** The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers. However, the regulation indirectly affects people who use the products and services produced by these industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period.
Pavley I 2005 Regulations to Control GHG Emissions from Motor Vehicles 2012 LEV III Amendments to the California Greenhouse Gas and Criteria Pollutant Exhaust and Evaporative Emission Standards	**Consistent.** This measure applies to all new vehicles starting with model year 2012. The Project would not conflict with its implementation as it would apply to all new passenger vehicles purchased in California. Passenger vehicles, model year 2012 and later, associated with construction of the Project would be required to comply with the Pavley emissions standards.
2009 readopted in 2015. Regulations to Achieve Greenhouse Gas Emission Reductions Subarticle 7. Low Carbon Fuel Standard CCR 95480	**Consistent.** This measure applies to transportation fuels utilized by vehicles in California. The Project would not conflict with implementation of this measure. Motor vehicles associated with construction of the Project would utilize low carbon transportation fuels as required under this measure.
Regional Transportation-Related Greenhouse Gas Targets of SB 375	**Consistent.** A portion of the Project will provide a retail facility in the region that is consistent with the land uses assessed in the

Scoping Plan Strategy	Consistency Finding
	2022 Regional Transportation Plan/Sustainable Communities Strategy (SCS). The Project is not within an SCS priority area and so is not subject to requirements applicable to those areas.
Goods Movement Action Plan of January 2007	**Not applicable.** The Project does not propose any changes to maritime, rail, or intermodal facilities or forms of transportation.
2010 Amendments to the Truck and Bus Regulation, the Drayage Truck Regulation and the Tractor-Trailer Greenhouse Gas Regulation	**Consistent.** This measure applies to medium- and heavy- duty vehicles that operate in the State. The Project would not conflict with implementation of this measure. Medium- and heavy-duty vehicles associated with construction of the project would be required to comply with the requirements of this regulation.
High Speed Rail	**Not applicable.** This is a statewide measure that cannot be implemented by a project applicant or lead agency.
Title 20 Appliance Efficiency Regulation Title 24 Part 6 Energy Efficiency Standards for Residential Buildings Title 24 Part 11 California Green Building Code Standards	**Consistent.** The Project would not conflict with implementation of this measure. The Project will comply with the latest energy efficiency standards and incorporate applicable energy efficiency features designed to reduce project energy consumption.
2010 Regulation to Implement the Renewable Electricity Standard (33% 2020) SB 350 Clean Energy and Pollution Reduction Act of 2015 (50% 2030)	**Consistent.** Pacific Gas & Electric obtained 33 percent of its power supply from renewable sources such as solar and geothermal in 2017, and about 70 percent of the electricity it delivers is carbon-free, including nuclear and large hydroelectric facilities. The owner of the Project would purchase power that consists of a greater percentage of renewable sources and could install renewable solar power systems that will assist the utility in achieving exceeding the renewable mandate.
Million Solar Roofs Program	**Consistent.** This measure is intended to increase solar throughout California by means of a variety of electricity providers and existing solar programs. Projects within the plan area will be able to take advantage of incentives that are in place at the time of construction.
Title 24 Part 11 California Green Building Code Standards, SBX 7-7—The Water Conservation Act of 2009, Model Water Efficient Landscape Ordinance	**Consistent.** The Project will comply with the California Green Building Standards Code, which requires a 20 percent reduction in indoor water use. The Project will also comply with the MWELO as required by the County's development code and water ordinance.
Title 24 Part 11 California Green Building Code Standards	**Consistent.** The State will increase the use of green building practices. The Project would implement required green building strategies through existing regulation that requires the project to comply with various CALGreen requirements. The Project includes sustainability design features that support the Green Building Strategy.
2010 ARB Mandatory Reporting of Industrial Emissions Regulation	**Not applicable.** The Project would not generate emissions required to be reported under this regulation.
Title 24 Part 11 California Green Building Code Standards	**Consistent.** The Project would not conflict with implementation of these measures. The Project is required to achieve the

Scoping Plan Strategy	Consistency Finding
AB 341 Statewide 75 Percent Diversion Goal	recycling mandates via compliance with the CALGreen code. The Project would utilize existing recycling services.
Cap-and-Trade Offset Projects for Sustainable Forests	**Not applicable.** The Project site is not in an area designated where forested lands exist.
ARB Refrigerant Management Program CCR 95380	**Consistent.** Equipment used to condition future buildings would comply with this program.
Cap-and-Trade Offset Projects for Livestock and Rice Cultivation	**Not applicable.** The Project site would be used for non-residential uses. No grazing, feedlot, or rice cultivation activities currently exist onsite or are proposed to be implemented by the project.

SENATE BILL 32 SCOPING PLAN

The 2017 Climate Change Scoping Plan Update (2017 Scoping Plan) includes the strategy that the State intends to pursue to achieve the 2030 targets of Executive Order S-3-05 and SB 32. The 2017 Scoping Plan includes the following summary of its overall strategy for reaching the 2030 target:

- SB 350, which seeks to achieve a 50 percent Renewables Portfolio Standard by 2030, as well as doubling of energy efficiency savings by 2030.
- Low Carbon Fuel Standard, which proposed increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).
- Mobile Source Strategy (Cleaner Technology and Fuels Scenario), which sought to maintain existing GHG standards for light- and heavy-duty vehicles, as well as put 4.2 million ZEVs on the roads.
- Sustainable Freight Action Plan - Improve freight system efficiency. - Maximize use of near-zero emission vehicles and equipment powered by renewable energy. - Deploy over 100,000 zero-emission trucks and equipment by 2030.
- Short-Lived Climate Pollutant (SLCP) Reduction Strategy sought to reduce emissions of methane and hydrofluorocarbons, as well as black carbon, by 40 percent and 50 percent below 2013 levels by 2030, respectively.

Table 4-4 provides an analysis of the project's consistency with the 2017 Scoping Plan Update measures.

Table 4-4: SB 32 Consistency Table

Scoping Plan Strategy	Consistency Finding
SB 350 50% Renewable Mandate Utilities subject to the legislation will be required to increase their renewable energy mix from 33% in 2020 to 50% in 2030.	**Not Applicable.** The Project will purchase electricity from a utility subject to the SB 350 Renewable Mandate.
SB 350 Double Building Energy Efficiency by 2030 This is equivalent to a 20 percent reduction from 2014 building energy usage compared to current projected 2030 levels	**Not Applicable.** This measure applies to existing buildings. New structures are required to comply with Title 24 Energy Efficiency Standards that are expected to increase in stringency until buildings achieve zero net energy.
Low Carbon Fuel Standard This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	**Consistent.** Vehicles accessing the Project site will use fuel containing lower carbon content as the fuel standard is implemented. Mobile Source Strategy (Cleaner Technology and Fuels Scenario) Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III program. The strategy includes a goal of having 4.2 million ZEVs on

Scoping Plan Strategy	Consistency Finding
	the road by 2030. The 2025 CALGreen Code requires projects to provide EV chargers.
Sustainable Freight Action Plan The plan's target is to improve freight system efficiency 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030. This would be achieved by deploying over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030.	**Consistent.** The Project would develop industrial uses, which would be subject to further regulation that would implement the Sustainable Freight Action Plan. The Project in and of itself would not conflict with this Action Plan.
SLCP Reduction Strategy The strategy requires the reduction of SLCPs by 40 percent from 2013 levels by 2030 and the reduction of black carbon by 50 percent from 2013 levels by 2030.	**Consistent.** The Project will be accessed by vehicles meeting increasingly stringent particulate matter standards that reduce black carbon compared to older trucks.
SB 375 Sustainable Communities Strategies Requires Regional Transportation Plans to include a sustainable communities strategy for reduction of per capita vehicle miles traveled.	**Consistent.** The Project would propose to develop land adjacent to existing urban development, which would assist in the reduction of vehicle miles traveled.
Post-2020 Cap-and-Trade Program The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.	**Consistent.** The post-2020 Cap-and-Trade Program indirectly affects people who use the products and services produced by the regulated industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap- and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the program's first compliance period.
Post-2020 Cap-and-Trade Program The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.	**Consistent.** The post-2020 Cap-and-Trade Program indirectly affects people who use the products and services produced by the regulated industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap- and-Trade Program. The Cap-and-Trade Program also covers fuel

Scoping Plan Strategy	Consistency Finding
	suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the program's first compliance period.
Natural and Working Lands Action Plan ARB is working in coordination with several other agencies at the federal, state, and local levels, stakeholders, and with the public, to develop measures as outlined in the Scoping Plan Update and the governor's Executive Order B-30-15 to reduce GHG emissions and to cultivate net carbon sequestration potential for California's natural and working land.	**Not Applicable.** The Project would convert currently used land to a different land use and would cause loss of carbon sequestration.

Accordingly, taking into account the Project's emissions, Project design features, and the progress being made by the State towards reducing emissions in key sectors such as transportation, industry, and electricity, the Project would be consistent with State GHG Plans and would further the State's goals of reducing GHG emissions to 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050, and does not obstruct their attainment. Impacts would be less than significant.

ASSEMBLY BILL 1279 SCOPING PLAN

The Climate Crisis Act (2022), or AB 1279, seeks to achieve net zero greenhouse gas emissions by no later than 2045 and achieve and maintain net negative greenhouse gas emissions after 2045. The bill seeks to ensure that statewide anthropogenic greenhouse gas emissions are reduced to at least 85% below 1990 levels.

Table 4-5 provides an analysis of the Project's consistency with the 2022 Scoping Plan Update measures.

Table 4-5: AB 1279 Consistency Table

Scoping Plan Strategy	Consistency Finding
Reduction in per capita vehicle miles traveled of 30 percent by 2045	**Consistent.** The Project is a mixed use project that proposes both recreational and retail land uses in an area where additional retail development is being experienced. These combined factors would assist in the reduction of per capita vehicle miles traveled.
100% adoption of light-duty ZEVs by 2034	**Consistent.** The Project is not of such intensity or magnitude such that approval could prevent the State achieving this goal.
Carbon sequestration on majority of petroleum refineries by 2030	**Consistent.** The Project would not preclude attainment of this goal as it does not propose to modify a petroleum refinery.
100% sales of electric HVAC and water heaters for existing buildings	**Consistent.** The Project would comply with all applicable building codes. Appliances would be replaced at end-of-life with regulations in-place at that time.
Reduction in dairy emissions	**Consistent.** The Project would not preclude attainment of this goal because it does not propose to construct or modify dairies.
Carbon Dioxide Removal	**Consistent.** The Project does not preclude the construction of carbon removal systems.

TULARE COUNTY CLIMATE ACTION PLAN

The December 2018 Update of the Tulare County Climate Action Plan (CAP) provides consistency finding questions in order to determine if a Project is consistent with the CAP. Table 4-6 provides an analysis of the Project's consistency with the 2018 Climate Action Plan.

Table 4-6: CAP Consistency Table for Nonresidential Projects

Checklist Question	Consistency Finding
1. Is the project consistent with applicable General Plan goals and policies listed in CAP?	**Consistent.** The Project is a retail and recreational project next to the freeway, which would assist in the reduction of per capita vehicle miles traveled.
2. Is the project within a rural community plan or hamlet plan? If yes, is the project consistent with the plan?	**Consistent.** The Project is located in the Pixley Community Plan and is consistent with it.
3. Is the project an agriculture oriented commercial or industrial project in a rural area of the County?	**Not Applicable.** The Project is a retail and recreational project located adjacent to a freeway.
4. Is the project a general commercial or industrial project in a rural area of the County? If yes, is the project consistent with the General Plan?	**Not applicable.** The Project is a retail and recreational project located adjacent to a freeway.
5. Is the project required to construct a portion of a bicycle or pedestrian path that is part of an approved bicycle or mobility plan?	**Not Applicable.** No commercial development is proposed at this point in time. Should subsequent development be proposed, the County will assess such development and determine if a bicycle or pedestrian path is warranted.
6. Is the development site appropriate for locating an improved TCAT transit stop?	**Not Applicable.** No commercial development is proposed at this point in time. Should subsequent development be proposed, the County will assess such development and determine if a transit stop or reservation of right-of-way is warranted.
7. Does the site plan have space set aside for recycling bins or compost collection?	**Not Applicable.** No commercial development is proposed at this point in time. Should subsequent development be proposed, the County will assess such development.
9. Does the site include shared EV charging stations per CalGreen requirements?	**Not Applicable.** No commercial site plan is proposed.
10. Does the project comply with Tulare County Solar Roof Ordinance and/or Title 24 solar installation whichever is more stringent?	**Not Applicable.** No commercial development is proposed, but any future development would be required to comply with the applicable California Energy Code.
11. Does the project include drought tolerant landscaping and Irrigation systems meeting County standards and the MWELO.	**Not Applicable.** No commercial development is proposed, but any future development would be required to comply with MWELO.
12. Does the project comply with Title 24 building energy efficiency, lighting, and interior water efficiency requirements?	**Not Applicable.** No commercial development is proposed, but any future development would be required to comply with Title 24.
13. Is the project required to comply with SJVAPCD Rule 9510 Indirect Source Review?	**Not Applicable.** No commercial development is proposed, but subsequent projects of such size that trigger the applicability requirements of Rule 9510 would be required to comply with the Rule.

Checklist Question	Consistency Finding
14. Does the project employ over 100 employees arriving for work during peak traffic hours?	**Not Applicable.** No commercial development is proposed at this time, however future projects that employ over 100 employees would be required to comply with SJVAPCD Rule 9410.

Table 4-7 provides an analysis of the project's consistency with the 2018 CAP's quantification requirements.

Table 4-7: CAP Consistency Table for Projects that Require Quantification

Scoping Plan Strategy	Consistency Finding
1. Is the project inconsistent with one or more checklist questions?	**Consistent.** The Project is consistent with the above mentioned questions. Quantification is not required under this standard.
2. Does the project contain 500 or more residential units?	**Not Applicable.** The Project proposes no residential land uses. Quantification is not required under this standard.
3. Does the project contain 100,000 square feet or more of retail space.	**Not Applicable.** The Project contains less than 100,000 square feet of retail. Quantification is not required under this standard.
4. Does the project generate over 4,200 average daily trips?	**Not Applicable.** While the Project would generate 8,608 average daily trips, this use has a high rate of pass-by trips due to its highway commercial uses. Quantification is not required under this standard.

In summary, the Project would comply with existing State regulations adopted to achieve the overall GHG emissions reduction goals identified in AB 32, SB 32, AB 1279, and would be consistent with applicable plans and programs designed to reduce GHG emissions. Therefore, the Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. The impact would be less than significant.

5 CONCLUSION

As described above, the Project would result in less than significant impacts for all air quality, energy, and GHG impact criteria analyzed.

Table 5-1: Impact Summary

Impact	Appendix G Question	Result
AIR-1	The project would not conflict with or obstruct implementation of the applicable air quality plan.	Less than Significant Impact.
AIR-2	The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors).	Less than Significant Impact.
AIR-3	The project would not expose sensitive receptors to substantial pollutant concentrations.	Less than Significant Impact.
AIR-4	The project would not create objectionable odors affecting a substantial number of people.	Less than Significant Impact.
NRG-1	The project would not result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.	Less than Significant Impact.
NRG-2	The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	Less than Significant Impact.
GHG-1	The project would generate direct and indirect greenhouse gas emissions; however, these emissions would not result in a significant impact on the environment.	Less than Significant Impact.
GHG-2	The project would not conflict with any applicable plan, policy or regulation of an agency adopted to reduce the emissions of greenhouse gases.	Less than Significant Impact.

6 REFERENCES

California Air Resources Board. 2025. *iADAM: Air Quality Data Statistics.* https://www.arb.ca.gov/adam/.

—. 2017. "The 2017 Climate Change Scoping Plan Update, the Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target." January 20. https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/2030sp_pp_final.pdf.

California Department of Public Health. 2022. *Epidemoilogic Summary of Valley Fever (Coccidioidomycosis) in California, 2020-2021.* December. Accessed July 15, 2022. https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/CocciEpiSummary2020-2021.pdf.

California Energy Commission. 2021. *Energy Commission Adopts Updated Building Standards to Improve Efficiency, Reduce Emissions From Homes and Businesses.* August 11. https://www.energy.ca.gov/news/2021-08/energy-commission-adopts-updated-building-standards-improve-efficiency-reduce.

Centers for Disease Control and Prevention. 2009. *Increase in Coccidioidomycosis --- California, 2000--2007.* February 13. Accessed June 30, 2022. https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5805a1.htm.

County of Tulare. 2018. "Tulare County Climate Action Plan." December. https://generalplan.co.tulare.ca.us/documents/GP/001Adopted%20Tulare%20County%20General%20Plan%20Materials/220Climate%20Action%20Plan/CLIMATE%20ACTION%20PLAN%202018%20UPDATE.pdf.

—. 2012. "Tulare County General Plan." August. https://generalplan.co.tulare.ca.us/documents/GP/001Adopted%20Tulare%20County%20General%20Plan%20Materials/000General%20Plan%202030%20Part%20I%20and%20Part%20II/GENERAL%20PLAN%202012.pdf.

Intergovernmental Panel on Climate Change. 2007. *Climate Change 2007 - The Physical Science Basis.* https://www.ipcc.ch/report/ar4/wg1/.

San Joaquin Valley Air Pollution Control District. 2025. *Ambient Air Quality Standards & Attainment Status.* Accessed February 28, 2025. https://ww2.valleyair.org/air-quality-information/ambient-air-quality-standards-valley-attainmnet-status/.

San Joaquin Valley Air Pollution Control District. 2015. *Guidance for Assessing and Mitigating Air Quality Impacts.* March 19. Accessed June 30, 2022. https://www.valleyair.org/transportation/GAMAQI.pdf.

San Joaquin Valley Air Pollution Control District. 2009. *Guidance for Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA.* November 5. Accessed June 30 2022. http://www.valleyair.org/programs/CCAP/11-05-09/3_CCAP_FINAL_LU_Guidance_Nov_05_2009.pdf.

South Coast Air Quality Management District. 2008. "Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans." December 5. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2.

Appendix A: Air Quality Output Files

Pixley Truck Stop Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

3. Construction Emissions Details

3.1. Site Preparation (2026) - Unmitigated

3.3. Grading (2026) - Unmitigated

3.5. Building Construction (2026) - Unmitigated

3.7. Building Construction (2027) - Unmitigated

3.9. Paving (2027) - Unmitigated

3.11. Architectural Coating (2027) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Pixley Truck Stop
Construction Start Date	1/1/2026
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.10
Precipitation (days)	23.0
Location	36.009170678205294, -119.29623283219853
County	Tulare
City	Unincorporated
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2744
EDFZ	9
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.30

1.2. Land Use Types

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

Convenience Market with Gas Pumps	0.46	1000sqft	0.01	20,000	0.00	0.00	—	Auto/Rv fueling
Parking Lot	18.5	Acre	18.5	0.00	21,280	0.00	—	—
Fast Food Restaurant with Drive Thru	0.07	1000sqft	< 0.005	3,100	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	16.7	16.7	9.98	13.3	0.02	0.38	0.08	0.44	0.35	0.02	0.37	—	2,523	2,523	0.10	0.03	0.36	2,535
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.82	3.22	29.2	29.4	0.06	1.24	19.8	21.0	1.14	10.1	11.3	—	6,703	6,703	0.28	0.06	0.01	6,728
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.38	1.32	9.09	11.2	0.02	0.36	1.34	1.70	0.33	0.59	0.92	—	2,222	2,222	0.09	0.03	0.11	2,232
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.25	0.24	1.66	2.04	< 0.005	0.06	0.25	0.31	0.06	0.11	0.17	—	368	368	0.01	< 0.005	0.02	370

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.33	1.11	9.98	13.3	0.02	0.38	0.06	0.44	0.35	0.02	0.37	—	2,523	2,523	0.10	0.03	0.36	2,535
2027	16.7	16.7	9.51	13.3	0.02	0.34	0.08	0.40	0.31	0.02	0.33	—	2,520	2,520	0.10	0.03	0.32	2,533
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.82	3.22	29.2	29.4	0.06	1.24	19.8	21.0	1.14	10.1	11.3	—	6,703	6,703	0.28	0.06	0.01	6,728
2027	1.27	1.06	9.53	13.2	0.02	0.34	0.06	0.40	0.31	0.02	0.33	—	2,515	2,515	0.10	0.03	0.01	2,527
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.21	1.02	9.09	11.2	0.02	0.36	1.34	1.70	0.33	0.59	0.92	—	2,222	2,222	0.09	0.03	0.11	2,232
2027	1.38	1.32	2.50	3.51	0.01	0.09	0.02	0.11	0.08	< 0.005	0.09	—	642	642	0.03	0.01	0.04	645
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.22	0.19	1.66	2.04	< 0.005	0.06	0.25	0.31	0.06	0.11	0.17	—	368	368	0.01	< 0.005	0.02	370
2027	0.25	0.24	0.46	0.64	< 0.005	0.02	< 0.005	0.02	0.02	< 0.005	0.02	—	106	106	< 0.005	< 0.005	0.01	107

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.66	2.46	2.48	21.0	0.05	0.06	4.14	4.20	0.06	1.05	1.11	1.29	7,366	7,367	0.44	0.23	4,168	11,615
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	2.33	2.14	2.81	15.5	0.05	0.06	4.14	4.20	0.05	1.05	1.11	1.29	6,937	6,938	0.45	0.25	4,152	11,175
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.02	1.91	1.39	8.54	0.02	0.03	1.67	1.70	0.03	0.42	0.46	1.29	4,355	4,357	0.38	0.12	4,154	8,557
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.37	0.35	0.25	1.56	< 0.005	0.01	0.30	0.31	0.01	0.08	0.08	0.21	721	721	0.06	0.02	688	1,417

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.81	1.64	2.27	19.8	0.05	0.04	4.14	4.18	0.04	1.05	1.09	—	4,935	4,935	0.15	0.21	17.0	5,019
Area	0.83	0.81	0.01	1.00	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.13	4.13	< 0.005	< 0.005	—	4.15
Energy	0.02	0.01	0.20	0.17	< 0.005	0.02	—	0.02	0.02	—	0.02	—	2,426	2,426	0.16	0.02	—	2,435
Water	—	—	—	—	—	—	—	—	—	—	—	0.11	1.40	1.51	0.01	< 0.005	—	1.86
Waste	—	—	—	—	—	—	—	—	—	—	—	1.18	0.00	1.18	0.12	0.00	—	4.13
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,151	4,151
Total	2.66	2.46	2.48	21.0	0.05	0.06	4.14	4.20	0.06	1.05	1.11	1.29	7,366	7,367	0.44	0.23	4,168	11,615
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.66	1.48	2.61	15.3	0.04	0.04	4.14	4.18	0.04	1.05	1.09	—	4,510	4,510	0.16	0.23	0.44	4,583
Area	0.65	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.02	0.01	0.20	0.17	< 0.005	0.02	—	0.02	0.02	—	0.02	—	2,426	2,426	0.16	0.02	—	2,435
Water	—	—	—	—	—	—	—	—	—	—	—	0.11	1.40	1.51	0.01	< 0.005	—	1.86
Waste	—	—	—	—	—	—	—	—	—	—	—	1.18	0.00	1.18	0.12	0.00	—	4.13
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,151	4,151

Total	2.33	2.14	2.81	15.5	0.05	0.06	4.14	4.20	0.05	1.05	1.11	1.29	6,937	6,938	0.45	0.25	4,152	11,175
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.26	1.17	1.18	7.88	0.02	0.02	1.67	1.68	0.02	0.42	0.44	—	1,926	1,926	0.09	0.10	2.99	1,963
Area	0.74	0.73	< 0.005	0.50	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.04	2.04	< 0.005	< 0.005	—	2.04
Energy	0.02	0.01	0.20	0.17	< 0.005	0.02	—	0.02	0.02	—	0.02	—	2,426	2,426	0.16	0.02	—	2,435
Water	—	—	—	—	—	—	—	—	—	—	—	0.11	1.40	1.51	0.01	< 0.005	—	1.86
Waste	—	—	—	—	—	—	—	—	—	—	—	1.18	0.00	1.18	0.12	0.00	—	4.13
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,151	4,151
Total	2.02	1.91	1.39	8.54	0.02	0.03	1.67	1.70	0.03	0.42	0.46	1.29	4,355	4,357	0.38	0.12	4,154	8,557
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.23	0.21	0.22	1.44	< 0.005	< 0.005	0.30	0.31	< 0.005	0.08	0.08	—	319	319	0.02	0.02	0.50	325
Area	0.13	0.13	< 0.005	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.34	0.34	< 0.005	< 0.005	—	0.34
Energy	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	402	402	0.03	< 0.005	—	403
Water	—	—	—	—	—	—	—	—	—	—	—	0.02	0.23	0.25	< 0.005	< 0.005	—	0.31
Waste	—	—	—	—	—	—	—	—	—	—	—	0.20	0.00	0.20	0.02	0.00	—	0.68
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	687	687
Total	0.37	0.35	0.25	1.56	< 0.005	0.01	0.30	0.31	0.01	0.08	0.08	0.21	721	721	0.06	0.02	688	1,417

3. Construction Emissions Details

3.1. Site Preparation (2026) - Unmitigated

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

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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.74	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.09	0.80	0.79	< 0.005	0.03	—	0.03	0.03	—	0.03	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	—	0.54	0.54	—	0.28	0.28	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.15	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.60	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	91.5	91.5	0.01	< 0.005	0.01	93.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.60	2.60	< 0.005	< 0.005	< 0.005	2.65
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.43	0.43	< 0.005	< 0.005	< 0.005	0.44
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2026) - Unmitigated

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

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

Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	0.25	2.24	2.27	0.01	0.09	—	0.09	0.08	—	0.08	—	542	542	0.02	< 0.005	—	544
Dust From Material Movement	—	—	—	—	—	—	0.76	0.76	—	0.30	0.30	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.41	0.41	< 0.005	0.02	—	0.02	0.02	—	0.02	—	89.8	89.8	< 0.005	< 0.005	—	90.1
Dust From Material Movement	—	—	—	—	—	—	0.14	0.14	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	0.69	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	105	105	0.01	0.01	0.01	106
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.91	8.91	< 0.005	< 0.005	0.01	9.07
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.48	1.48	< 0.005	< 0.005	< 0.005	1.50
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Roa d Equipm ent	0.77	0.65	5.96	7.84	0.01	0.23	—	0.23	0.21	—	0.21	—	1,450	1,450	0.06	0.01	—	1,455
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Roa d Equipm ent	0.14	0.12	1.09	1.43	< 0.005	0.04	—	0.04	0.04	—	0.04	—	240	240	0.01	< 0.005	—	241
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.02	0.34	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	45.5	45.5	< 0.005	< 0.005	0.16	46.3
Vendor	< 0.005	< 0.005	0.11	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	79.9	79.9	< 0.005	0.01	0.20	83.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.27	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	40.3	40.3	< 0.005	< 0.005	< 0.005	40.9
Vendor	< 0.005	< 0.005	0.12	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	79.9	79.9	< 0.005	0.01	0.01	83.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.02	0.02	0.01	0.17	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	25.2	25.2	< 0.005	< 0.005	0.04	25.7
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	48.3	48.3	< 0.005	0.01	0.05	50.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.18	4.18	< 0.005	< 0.005	0.01	4.25
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.00	8.00	< 0.005	< 0.005	0.01	8.37
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.27	0.22	2.04	2.81	0.01	0.07	—	0.07	0.07	—	0.07	—	521	521	0.02	< 0.005	—	522
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.37	0.51	< 0.005	0.01	—	0.01	0.01	—	0.01	—	86.2	86.2	< 0.005	< 0.005	—	86.5
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.31	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	44.6	44.6	< 0.005	< 0.005	0.15	45.4
Vendor	< 0.005	< 0.005	0.10	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	78.2	78.2	< 0.005	0.01	0.17	82.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.24	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	39.4	39.4	< 0.005	< 0.005	< 0.005	40.1
Vendor	< 0.005	< 0.005	0.11	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	78.3	78.3	< 0.005	0.01	< 0.005	81.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.89	8.89	< 0.005	< 0.005	0.01	9.04
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	17.0	17.0	< 0.005	< 0.005	0.02	17.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.47	1.47	< 0.005	< 0.005	< 0.005	1.50
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.81	2.81	< 0.005	< 0.005	< 0.005	2.95

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Paving (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	2.42	2.42	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.38	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.13	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.04	0.61	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	86.8	86.8	0.01	< 0.005	0.29	88.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.37	4.37	< 0.005	< 0.005	0.01	4.44
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.72	0.72	< 0.005	< 0.005	< 0.005	0.74
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (2027) - Unmitigated

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

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

Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	16.6	16.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	0.91	0.91	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	0.17	0.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.91	8.91	< 0.005	< 0.005	0.03	9.07
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.45	0.45	< 0.005	< 0.005	< 0.005	0.46
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.07	0.07	< 0.005	< 0.005	< 0.005	0.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

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

Convenience Market with Gas Pumps	1.58	1.42	1.98	17.2	0.04	0.04	3.60	3.64	0.03	0.92	0.95	—	4,290	4,290	0.13	0.19	14.8	4,364
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Fast Food Restaurant with Drive Thru	0.24	0.21	0.30	2.58	0.01	0.01	0.54	0.55	0.01	0.14	0.14	—	644	644	0.02	0.03	2.22	655
Total	1.81	1.64	2.27	19.8	0.05	0.04	4.14	4.18	0.04	1.05	1.09	—	4,935	4,935	0.15	0.21	17.0	5,019
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	1.44	1.29	2.27	13.3	0.04	0.04	3.60	3.64	0.03	0.92	0.95	—	3,921	3,921	0.14	0.20	0.38	3,984
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Fast Food Restaurant with Drive Thru	0.22	0.19	0.34	2.00	0.01	0.01	0.54	0.55	0.01	0.14	0.14	—	589	589	0.02	0.03	0.06	598
Total	1.66	1.48	2.61	15.3	0.04	0.04	4.14	4.18	0.04	1.05	1.09	—	4,510	4,510	0.16	0.23	0.44	4,583
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	0.20	0.19	0.19	1.26	< 0.005	< 0.005	0.26	0.27	< 0.005	0.07	0.07	—	277	277	0.01	0.02	0.43	282

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Fast Food Restaurant with Drive Thru	0.03	0.02	0.03	0.18	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	41.9	41.9	< 0.005	< 0.005	0.07	42.7
Total	0.23	0.21	0.22	1.44	< 0.005	< 0.005	0.30	0.31	< 0.005	0.08	0.08	—	319	319	0.02	0.02	0.50	325

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	990	990	0.06	0.01	—	994
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	1,029	1,029	0.06	0.01	—	1,033
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	169	169	0.01	< 0.005	—	169
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,188	2,188	0.14	0.02	—	2,196
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	990	990	0.06	0.01	—	994
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	1,029	1,029	0.06	0.01	—	1,033
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	169	169	0.01	< 0.005	—	169
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,188	2,188	0.14	0.02	—	2,196
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	164	164	0.01	< 0.005	—	165
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	170	170	0.01	< 0.005	—	171
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	27.9	27.9	< 0.005	< 0.005	—	28.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	362	362	0.02	< 0.005	—	364

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

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

Convenience Market with Gas Pumps	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	119	119	0.01	< 0.005	—	120
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Fast Food Restaurant with Drive Thru	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	119	119	0.01	< 0.005	—	119
Total	0.02	0.01	0.20	0.17	< 0.005	0.02	—	0.02	0.02	—	0.02	—	238	238	0.02	< 0.005	—	239
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	119	119	0.01	< 0.005	—	120
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Fast Food Restaurant with Drive Thru	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	119	119	0.01	< 0.005	—	119
Total	0.02	0.01	0.20	0.17	< 0.005	0.02	—	0.02	0.02	—	0.02	—	238	238	0.02	< 0.005	—	239
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.8	19.8	< 0.005	< 0.005	—	19.8
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Fast Food Restaurant with Drive Thru	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.6	19.6	< 0.005	< 0.005	—	19.7
Total	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	39.4	39.4	< 0.005	< 0.005	—	39.5

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.56	0.56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.09	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.18	0.16	0.01	1.00	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.13	4.13	< 0.005	< 0.005	—	4.15
Total	0.83	0.81	0.01	1.00	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.13	4.13	< 0.005	< 0.005	—	4.15
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.56	0.56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	0.09	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.65	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.10	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.02	0.01	< 0.005	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.34	0.34	< 0.005	< 0.005	—	0.34
Total	0.13	0.13	< 0.005	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.34	0.34	< 0.005	< 0.005	—	0.34

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.07	0.20	0.26	0.01	< 0.005	—	0.48
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	1.08	1.08	< 0.005	< 0.005	—	1.09

Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	0.04	0.12	0.16	< 0.005	< 0.005	—	0.30
Total	—	—	—	—	—	—	—	—	—	—	—	0.11	1.40	1.51	0.01	< 0.005	—	1.86
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.07	0.20	0.26	0.01	< 0.005	—	0.48
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	1.08	1.08	< 0.005	< 0.005	—	1.09
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	0.04	0.12	0.16	< 0.005	< 0.005	—	0.30
Total	—	—	—	—	—	—	—	—	—	—	—	0.11	1.40	1.51	0.01	< 0.005	—	1.86
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.01	0.03	0.04	< 0.005	< 0.005	—	0.08
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.18	0.18	< 0.005	< 0.005	—	0.18
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	0.01	0.02	0.03	< 0.005	< 0.005	—	0.05

Total	—	—	—	—	—	—	—	—	—	—	—	0.02	0.23	0.25	< 0.005	< 0.005	—	0.31

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.75	0.00	0.75	0.07	0.00	—	2.61
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	0.43	0.00	0.43	0.04	0.00	—	1.52
Total	—	—	—	—	—	—	—	—	—	—	—	1.18	0.00	1.18	0.12	0.00	—	4.13
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.75	0.00	0.75	0.07	0.00	—	2.61
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	0.43	0.00	0.43	0.04	0.00	—	1.52
Total	—	—	—	—	—	—	—	—	—	—	—	1.18	0.00	1.18	0.12	0.00	—	4.13
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.12	0.00	0.12	0.01	0.00	—	0.43
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	0.07	0.00	0.07	0.01	0.00	—	0.25
Total	—	—	—	—	—	—	—	—	—	—	—	0.20	0.00	0.20	0.02	0.00	—	0.68

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,146	4,146

Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.85	4.85
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,151	4,151
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,146	4,146
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.85	4.85
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,151	4,151
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	686	686
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.80	0.80
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	687	687

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/1/2026	1/14/2026	5.00	10.0	—
Grading	Grading	1/15/2026	2/25/2026	5.00	30.0	—
Building Construction	Building Construction	2/26/2026	4/21/2027	5.00	300	—
Paving	Paving	4/22/2027	5/19/2027	5.00	20.0	—
Architectural Coating	Architectural Coating	5/20/2027	6/16/2027	5.00	20.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38

Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	7.70	LDA,LDT1,LDT2
Site Preparation	Vendor	—	6.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	7.70	LDA,LDT1,LDT2
Grading	Vendor	—	6.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	7.70	7.70	LDA,LDT1,LDT2
Building Construction	Vendor	3.79	6.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	7.70	LDA,LDT1,LDT2
Paving	Vendor	—	6.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	1.54	7.70	LDA,LDT1,LDT2

Architectural Coating	Vendor	—	6.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	34,650	11,550	48,352

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00	0.00	1.50	0.00	—
Grading	0.00	0.00	6.00	0.00	—
Paving	0.00	0.00	0.00	0.00	18.5

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Convenience Market with Gas Pumps	0.00	0%
Parking Lot	18.5	100%

Fast Food Restaurant with Drive Thru	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	532	0.03	< 0.005
2027	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Convenience Market with Gas Pumps	287	287	287	104,807	862	5,067	5,067	753,213
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fast Food Restaurant with Drive Thru	33.0	43.1	33.1	12,569	172	761	584	114,872

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	34,650	11,550	48,352

5.10.3. Landscape Equipment

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

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Convenience Market with Gas Pumps	679,478	532	0.0330	0.0040	372,629
Parking Lot	705,933	532	0.0330	0.0040	0.00
Fast Food Restaurant with Drive Thru	115,621	532	0.0330	0.0040	369,968

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Convenience Market with Gas Pumps	34,073	0.00
Parking Lot	0.00	307,113
Fast Food Restaurant with Drive Thru	21,247	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)

Convenience Market with Gas Pumps	1.38	—
Parking Lot	0.00	—
Fast Food Restaurant with Drive Thru	0.81	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Convenience Market with Gas Pumps	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Convenience Market with Gas Pumps	Supermarket refrigeration and condensing units	R-404A	3,922	26.5	16.5	16.5	18.0
Fast Food Restaurant with Drive Thru	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Fast Food Restaurant with Drive Thru	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Fast Food Restaurant with Drive Thru	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

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

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

8. User Changes to Default Data

Screen	Justification
Land Use	Auto/rv fueling; parking; qsr with drive through
Construction: Construction Phases	No demolition.

Construction: Dust From Material Movement	acres graded

*HARP - HRACalc v22118 9/30/2025 10:12:56 AM - Chronic Risk - Input File: C:\HARP2\PixleyTS\PIXLEYTS\hra\OPS

REC	GRP	NETID	X	Y	CONC	POLID	POLABBRE	SCENARIO	CV
1	ALL		293150.9	3988145	0.000312	9901	DieselExhP	NonCancer	0.00E+00
2	ALL		293964	3988164	0.000166	9901	DieselExhP	NonCancer	0.00E+00
3	ALL		293955.5	3988106	0.000177	9901	DieselExhP	NonCancer	0.00E+00
4	ALL		292953	3987213	0.005834	9901	DieselExhP	NonCancer	0.00E+00
5	ALL		293042.7	3987210	0.005798	9901	DieselExhP	NonCancer	0.00E+00
6	ALL		292715.7	3986801	0.000349	9901	DieselExhP	NonCancer	0.00E+00
7	ALL		292911.5	3986821	0.000533	9901	DieselExhP	NonCancer	0.00E+00
8	ALL		293006.7	3986807	0.00056	9901	DieselExhP	NonCancer	0.00E+00
9	ALL		293101.4	3986801	0.000592	9901	DieselExhP	NonCancer	0.00E+00
1	ALL		293150.9	3988145	0.000598	71432	Benzene	NonCancer	0.00E+00
2	ALL		293964	3988164	0.000347	71432	Benzene	NonCancer	0.00E+00
3	ALL		293955.5	3988106	0.000374	71432	Benzene	NonCancer	0.00E+00
4	ALL		292953	3987213	0.006289	71432	Benzene	NonCancer	0.00E+00
5	ALL		293042.7	3987210	0.013188	71432	Benzene	NonCancer	0.00E+00
6	ALL		292715.7	3986801	0.000551	71432	Benzene	NonCancer	0.00E+00
7	ALL		292911.5	3986821	0.000778	71432	Benzene	NonCancer	0.00E+00
8	ALL		293006.7	3986807	0.000835	71432	Benzene	NonCancer	0.00E+00
9	ALL		293101.4	3986801	0.000946	71432	Benzene	NonCancer	0.00E+00
1	ALL		293150.9	3988145	0.000475	100414	Ethyl Benze	NonCancer	0.00E+00
2	ALL		293964	3988164	0.000281	100414	Ethyl Benze	NonCancer	0.00E+00
3	ALL		293955.5	3988106	0.000303	100414	Ethyl Benze	NonCancer	0.00E+00
4	ALL		292953	3987213	0.005744	100414	Ethyl Benze	NonCancer	0.00E+00
5	ALL		293042.7	3987210	0.014221	100414	Ethyl Benze	NonCancer	0.00E+00
6	ALL		292715.7	3986801	0.000464	100414	Ethyl Benze	NonCancer	0.00E+00
7	ALL		292911.5	3986821	0.000664	100414	Ethyl Benze	NonCancer	0.00E+00
8	ALL		293006.7	3986807	0.000728	100414	Ethyl Benze	NonCancer	0.00E+00
9	ALL		293101.4	3986801	0.000819	100414	Ethyl Benze	NonCancer	0.00E+00
1	ALL		293150.9	3988145	0.002099	110543	Hexane	NonCancer	0.00E+00
2	ALL		293964	3988164	0.001216	110543	Hexane	NonCancer	0.00E+00
3	ALL		293955.5	3988106	0.001307	110543	Hexane	NonCancer	0.00E+00
4	ALL		292953	3987213	0.021432	110543	Hexane	NonCancer	0.00E+00
5	ALL		293042.7	3987210	0.043049	110543	Hexane	NonCancer	0.00E+00
6	ALL		292715.7	3986801	0.001912	110543	Hexane	NonCancer	0.00E+00
7	ALL		292911.5	3986821	0.00269	110543	Hexane	NonCancer	0.00E+00
8	ALL		293006.7	3986807	0.002875	110543	Hexane	NonCancer	0.00E+00
9	ALL		293101.4	3986801	0.003261	110543	Hexane	NonCancer	0.00E+00
1	ALL		293150.9	3988145	5.23E-05	91203	Naphthaler	NonCancer	0.00E+00
2	ALL		293964	3988164	3.12E-05	91203	Naphthaler	NonCancer	0.00E+00
3	ALL		293955.5	3988106	3.36E-05	91203	Naphthaler	NonCancer	0.00E+00
4	ALL		292953	3987213	0.000666	91203	Naphthaler	NonCancer	0.00E+00
5	ALL		293042.7	3987210	0.001734	91203	Naphthaler	NonCancer	0.00E+00
6	ALL		292715.7	3986801	5.23E-05	91203	Naphthaler	NonCancer	0.00E+00

7	ALL	292911.5	3986821	7.53E-05	91203	Naphthaler	NonCancer	0.00E+00
8	ALL	293006.7	3986807	8.32E-05	91203	Naphthaler	NonCancer	0.00E+00
9	ALL	293101.4	3986801	9.33E-05	91203	Naphthaler	NonCancer	0.00E+00
1	ALL	293150.9	3988145	1.26E-06	115071	Propylene	NonCancer	0.00E+00
2	ALL	293964	3988164	7.20E-07	115071	Propylene	NonCancer	0.00E+00
3	ALL	293955.5	3988106	7.73E-07	115071	Propylene	NonCancer	0.00E+00
4	ALL	292953	3987213	1.17E-05	115071	Propylene	NonCancer	0.00E+00
5	ALL	293042.7	3987210	2.03E-05	115071	Propylene	NonCancer	0.00E+00
6	ALL	292715.7	3986801	1.11E-06	115071	Propylene	NonCancer	0.00E+00
7	ALL	292911.5	3986821	1.54E-06	115071	Propylene	NonCancer	0.00E+00
8	ALL	293006.7	3986807	1.62E-06	115071	Propylene	NonCancer	0.00E+00
9	ALL	293101.4	3986801	1.85E-06	115071	Propylene	NonCancer	0.00E+00
1	ALL	293150.9	3988145	0.00262	108883	Toluene	NonCancer	0.00E+00
2	ALL	293964	3988164	0.00154	108883	Toluene	NonCancer	0.00E+00
3	ALL	293955.5	3988106	0.001658	108883	Toluene	NonCancer	0.00E+00
4	ALL	292953	3987213	0.030164	108883	Toluene	NonCancer	0.00E+00
5	ALL	293042.7	3987210	0.070823	108883	Toluene	NonCancer	0.00E+00
6	ALL	292715.7	3986801	0.002505	108883	Toluene	NonCancer	0.00E+00
7	ALL	292911.5	3986821	0.003571	108883	Toluene	NonCancer	0.00E+00
8	ALL	293006.7	3986807	0.003885	108883	Toluene	NonCancer	0.00E+00
9	ALL	293101.4	3986801	0.00438	108883	Toluene	NonCancer	0.00E+00
1	ALL	293150.9	3988145	0.002311	1330207	Xylenes	NonCancer	0.00E+00
2	ALL	293964	3988164	0.001369	1330207	Xylenes	NonCancer	0.00E+00
3	ALL	293955.5	3988106	0.001475	1330207	Xylenes	NonCancer	0.00E+00
4	ALL	292953	3987213	0.028276	1330207	Xylenes	NonCancer	0.00E+00
5	ALL	293042.7	3987210	0.070845	1330207	Xylenes	NonCancer	0.00E+00
6	ALL	292715.7	3986801	0.002267	1330207	Xylenes	NonCancer	0.00E+00
7	ALL	292911.5	3986821	0.003253	1330207	Xylenes	NonCancer	0.00E+00
8	ALL	293006.7	3986807	0.003571	1330207	Xylenes	NonCancer	0.00E+00
9	ALL	293101.4	3986801	0.004015	1330207	Xylenes	NonCancer	0.00E+00

s_HRAInput.hra

CNS	IMMUN	KIDNEY	GILV	REPRO/DE	RESP	SKIN	EYE	BONE/TEE	ENDO
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.24E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.32E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.55E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.16E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.98E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.07E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.12E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.18E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	2.37E-07	2.37E-07	2.37E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.37E-07
0.00E+00	0.00E+00	1.40E-07	1.40E-07	1.40E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.40E-07
0.00E+00	0.00E+00	1.51E-07	1.51E-07	1.51E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.51E-07
0.00E+00	0.00E+00	2.87E-06	2.87E-06	2.87E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.87E-06
0.00E+00	0.00E+00	7.11E-06	7.11E-06	7.11E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.11E-06
0.00E+00	0.00E+00	2.32E-07	2.32E-07	2.32E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.32E-07
0.00E+00	0.00E+00	3.32E-07	3.32E-07	3.32E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.32E-07
0.00E+00	0.00E+00	3.64E-07	3.64E-07	3.64E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.64E-07
0.00E+00	0.00E+00	4.10E-07	4.10E-07	4.10E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.10E-07
3.00E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.74E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.87E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.06E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6.15E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.73E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.84E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.11E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.66E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.82E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.46E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.73E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.40E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.93E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.81E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00

0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.37E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.24E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.04E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.18E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.40E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.58E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.91E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.75E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.69E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.14E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.41E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.17E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.24E-06	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.67E-06	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.95E-06	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.18E-05	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.69E-04	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.96E-06	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.50E-06	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.25E-06	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.04E-05	0.00E+00	0.00E+00
3.30E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.30E-06	0.00E+00	3.30E-06	0.00E+00	0.00E+00
1.96E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-06	0.00E+00	1.96E-06	0.00E+00	0.00E+00
2.11E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-06	0.00E+00	2.11E-06	0.00E+00	0.00E+00
4.04E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.04E-05	0.00E+00	4.04E-05	0.00E+00	0.00E+00
1.01E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.01E-04	0.00E+00	1.01E-04	0.00E+00	0.00E+00
3.24E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.24E-06	0.00E+00	3.24E-06	0.00E+00	0.00E+00
4.65E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.65E-06	0.00E+00	4.65E-06	0.00E+00	0.00E+00
5.10E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.10E-06	0.00E+00	5.10E-06	0.00E+00	0.00E+00
5.74E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.74E-06	0.00E+00	5.74E-06	0.00E+00	0.00E+00

BLOOD	ODOR	GENERAL	DETAILS	INH_CONC	SOIL_DOSE	DERMAL_D	MMILK_DO	WATER_DC	FISH_DOSE
0.00E+00	0.00E+00	0.00E+00	*	3.12E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	1.66E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	1.77E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	5.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	5.80E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	3.49E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	5.33E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	5.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	5.92E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.99E-04	0.00E+00	0.00E+00	*	5.98E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.16E-04	0.00E+00	0.00E+00	*	3.47E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.25E-04	0.00E+00	0.00E+00	*	3.74E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.10E-03	0.00E+00	0.00E+00	*	6.29E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.40E-03	0.00E+00	0.00E+00	*	1.32E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.84E-04	0.00E+00	0.00E+00	*	5.51E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.59E-04	0.00E+00	0.00E+00	*	7.78E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.78E-04	0.00E+00	0.00E+00	*	8.35E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.15E-04	0.00E+00	0.00E+00	*	9.46E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	4.75E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	2.81E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	3.03E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	5.74E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	1.42E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	4.64E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	6.64E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	7.28E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	8.19E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	2.10E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	1.22E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	1.31E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	2.14E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	4.30E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	1.91E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	2.69E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	2.87E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	3.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	5.23E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	3.12E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	3.36E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	6.66E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	1.73E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	5.23E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

0.00E+00	0.00E+00	0.00E+00	*	7.53E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	8.32E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	9.33E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	1.26E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	7.20E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	7.73E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	1.17E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	2.03E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	1.11E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	1.54E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	1.62E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	1.85E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	2.62E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	1.54E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	1.66E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	3.02E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	7.08E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	2.51E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	3.57E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	3.88E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	4.38E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	2.31E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	1.37E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	1.47E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	2.83E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	7.08E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	2.27E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	3.25E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	3.57E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	*	4.02E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

CROP_DOS	BEEF_DOS	DAIRY_DOS	PIG_DOSE	CHICKEN_	EGG_DOSE	1ST_DRIVE	2ND_DRIVI	3RD_DRIVER
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		

0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION

*HARP - HRACalc v22118 9/30/2025 10:12:56 AM - Cancer Risk - Input File: C:\HARP2\PixleyTS\PIXLEYTS\hra\OPS_

REC	GRP	NETID	X	Y	CONC	POLID	POLABBRE	RISK_SUM	SCENARIO
1	ALL		293150.9	3988145	0.000312	9901	DieselExhP	3.26E-07	68.55YrCar
2	ALL		293964	3988164	0.000166	9901	DieselExhP	1.73E-07	68.55YrCar
3	ALL		293955.5	3988106	0.000177	9901	DieselExhP	1.85E-07	68.55YrCar
4	ALL		292953	3987213	0.005834	9901	DieselExhP	6.09E-06	68.55YrCar
5	ALL		293042.7	3987210	0.005798	9901	DieselExhP	6.05E-06	68.55YrCar
6	ALL		292715.7	3986801	0.000349	9901	DieselExhP	3.64E-07	68.55YrCar
7	ALL		292911.5	3986821	0.000533	9901	DieselExhP	5.56E-07	68.55YrCar
8	ALL		293006.7	3986807	0.00056	9901	DieselExhP	5.84E-07	68.55YrCar
9	ALL		293101.4	3986801	0.000592	9901	DieselExhP	6.18E-07	68.55YrCar
1	ALL		293150.9	3988145	0.000598	71432	Benzene	5.67E-08	68.55YrCar
2	ALL		293964	3988164	0.000347	71432	Benzene	3.30E-08	68.55YrCar
3	ALL		293955.5	3988106	0.000374	71432	Benzene	3.54E-08	68.55YrCar
4	ALL		292953	3987213	0.006289	71432	Benzene	5.96E-07	68.55YrCar
5	ALL		293042.7	3987210	0.013188	71432	Benzene	1.25E-06	68.55YrCar
6	ALL		292715.7	3986801	0.000551	71432	Benzene	5.23E-08	68.55YrCar
7	ALL		292911.5	3986821	0.000778	71432	Benzene	7.38E-08	68.55YrCar
8	ALL		293006.7	3986807	0.000835	71432	Benzene	7.92E-08	68.55YrCar
9	ALL		293101.4	3986801	0.000946	71432	Benzene	8.97E-08	68.55YrCar
1	ALL		293150.9	3988145	0.000475	100414	Ethyl Benze	3.92E-09	68.55YrCar
2	ALL		293964	3988164	0.000281	100414	Ethyl Benze	2.32E-09	68.55YrCar
3	ALL		293955.5	3988106	0.000303	100414	Ethyl Benze	2.50E-09	68.55YrCar
4	ALL		292953	3987213	0.005744	100414	Ethyl Benze	4.74E-08	68.55YrCar
5	ALL		293042.7	3987210	0.014221	100414	Ethyl Benze	1.17E-07	68.55YrCar
6	ALL		292715.7	3986801	0.000464	100414	Ethyl Benze	3.83E-09	68.55YrCar
7	ALL		292911.5	3986821	0.000664	100414	Ethyl Benze	5.48E-09	68.55YrCar
8	ALL		293006.7	3986807	0.000728	100414	Ethyl Benze	6.01E-09	68.55YrCar
9	ALL		293101.4	3986801	0.000819	100414	Ethyl Benze	6.76E-09	68.55YrCar
1	ALL		293150.9	3988145	0.002099	110543	Hexane	0.00E+00	68.55YrCar
2	ALL		293964	3988164	0.001216	110543	Hexane	0.00E+00	68.55YrCar
3	ALL		293955.5	3988106	0.001307	110543	Hexane	0.00E+00	68.55YrCar
4	ALL		292953	3987213	0.021432	110543	Hexane	0.00E+00	68.55YrCar
5	ALL		293042.7	3987210	0.043049	110543	Hexane	0.00E+00	68.55YrCar
6	ALL		292715.7	3986801	0.001912	110543	Hexane	0.00E+00	68.55YrCar
7	ALL		292911.5	3986821	0.00269	110543	Hexane	0.00E+00	68.55YrCar
8	ALL		293006.7	3986807	0.002875	110543	Hexane	0.00E+00	68.55YrCar
9	ALL		293101.4	3986801	0.003261	110543	Hexane	0.00E+00	68.55YrCar
1	ALL		293150.9	3988145	5.23E-05	91203	Naphthaler	5.96E-09	68.55YrCar
2	ALL		293964	3988164	3.12E-05	91203	Naphthaler	3.55E-09	68.55YrCar
3	ALL		293955.5	3988106	3.36E-05	91203	Naphthaler	3.82E-09	68.55YrCar
4	ALL		292953	3987213	0.000666	91203	Naphthaler	7.58E-08	68.55YrCar
5	ALL		293042.7	3987210	0.001734	91203	Naphthaler	1.97E-07	68.55YrCar
6	ALL		292715.7	3986801	5.23E-05	91203	Naphthaler	5.95E-09	68.55YrCar

7	ALL	292911.5	3986821	7.53E-05	91203	Naphthaler	8.57E-09	68.55YrCar
8	ALL	293006.7	3986807	8.32E-05	91203	Naphthaler	9.46E-09	68.55YrCar
9	ALL	293101.4	3986801	9.33E-05	91203	Naphthaler	1.06E-08	68.55YrCar
1	ALL	293150.9	3988145	1.26E-06	115071	Propylene	0.00E+00	68.55YrCar
2	ALL	293964	3988164	7.20E-07	115071	Propylene	0.00E+00	68.55YrCar
3	ALL	293955.5	3988106	7.73E-07	115071	Propylene	0.00E+00	68.55YrCar
4	ALL	292953	3987213	1.17E-05	115071	Propylene	0.00E+00	68.55YrCar
5	ALL	293042.7	3987210	2.03E-05	115071	Propylene	0.00E+00	68.55YrCar
6	ALL	292715.7	3986801	1.11E-06	115071	Propylene	0.00E+00	68.55YrCar
7	ALL	292911.5	3986821	1.54E-06	115071	Propylene	0.00E+00	68.55YrCar
8	ALL	293006.7	3986807	1.62E-06	115071	Propylene	0.00E+00	68.55YrCar
9	ALL	293101.4	3986801	1.85E-06	115071	Propylene	0.00E+00	68.55YrCar
1	ALL	293150.9	3988145	0.00262	108883	Toluene	0.00E+00	68.55YrCar
2	ALL	293964	3988164	0.00154	108883	Toluene	0.00E+00	68.55YrCar
3	ALL	293955.5	3988106	0.001658	108883	Toluene	0.00E+00	68.55YrCar
4	ALL	292953	3987213	0.030164	108883	Toluene	0.00E+00	68.55YrCar
5	ALL	293042.7	3987210	0.070823	108883	Toluene	0.00E+00	68.55YrCar
6	ALL	292715.7	3986801	0.002505	108883	Toluene	0.00E+00	68.55YrCar
7	ALL	292911.5	3986821	0.003571	108883	Toluene	0.00E+00	68.55YrCar
8	ALL	293006.7	3986807	0.003885	108883	Toluene	0.00E+00	68.55YrCar
9	ALL	293101.4	3986801	0.00438	108883	Toluene	0.00E+00	68.55YrCar
1	ALL	293150.9	3988145	0.002311	1330207	Xylenes	0.00E+00	68.55YrCar
2	ALL	293964	3988164	0.001369	1330207	Xylenes	0.00E+00	68.55YrCar
3	ALL	293955.5	3988106	0.001475	1330207	Xylenes	0.00E+00	68.55YrCar
4	ALL	292953	3987213	0.028276	1330207	Xylenes	0.00E+00	68.55YrCar
5	ALL	293042.7	3987210	0.070845	1330207	Xylenes	0.00E+00	68.55YrCar
6	ALL	292715.7	3986801	0.002267	1330207	Xylenes	0.00E+00	68.55YrCar
7	ALL	292911.5	3986821	0.003253	1330207	Xylenes	0.00E+00	68.55YrCar
8	ALL	293006.7	3986807	0.003571	1330207	Xylenes	0.00E+00	68.55YrCar
9	ALL	293101.4	3986801	0.004015	1330207	Xylenes	0.00E+00	68.55YrCar

_HRAInput.hra

DETAILS	INH_RISK	SOIL_RISK	DERMAL_R	MMILK_RIS	WATER_RIS	FISH_RISK	CROP_RISI	BEEF_RISK	DAIRY_RISI
*	3.26E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	1.73E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	1.85E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	6.09E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	6.05E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	3.64E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	5.56E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	5.84E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	6.18E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	5.67E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	3.30E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	3.54E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	5.96E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	1.25E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	5.23E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	7.38E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	7.92E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	8.97E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	3.92E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	2.32E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	2.50E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	4.74E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	1.17E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	3.83E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	5.48E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	6.01E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	6.76E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	5.96E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	3.55E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	3.82E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	7.58E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	1.97E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	5.95E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

*	8.57E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	9.46E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	1.06E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

PIG_RISK	CHICKEN_	EGG_RISK	1ST_DRIVE	2ND_DRIVER
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00		
0.00E+00	0.00E+00	0.00E+00		
0.00E+00	0.00E+00	0.00E+00		
0.00E+00	0.00E+00	0.00E+00		
0.00E+00	0.00E+00	0.00E+00		
0.00E+00	0.00E+00	0.00E+00		
0.00E+00	0.00E+00	0.00E+00		
0.00E+00	0.00E+00	0.00E+00		
0.00E+00	0.00E+00	0.00E+00		
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	INHALATION	

0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	INHALATION
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	

**HARP - Air Dispersion Modeling and Risk Tool v22118

**9/30/2025

**Exported Risk Results

REC	GRP	NETID	X	Y	SCENARIO	CV	CNS	IMMUN	KIDNEY
1	ALL		293150.9	3988145	NonCancer	0	0	0	0
2	ALL		293964	3988164	NonCancer	0	0	0	0
3	ALL		293955.5	3988106	NonCancer	0	0	0	0
4	ALL		292953	3987213	NonCancer	0	0	0	0
5	ALL		293042.7	3987210	NonCancer	0	0	0	0
6	ALL		292715.7	3986801	NonCancer	0	0	0	0
7	ALL		292911.5	3986821	NonCancer	0	0	0	0
8	ALL		293006.7	3986807	NonCancer	0	0	0	0

GILV	REPRO/DE'	RESP	SKIN	EYE	BONE/TEE	ENDO	BLOOD	ODOR	GENERAL
0	0	0.001193	0	0	0	0	0	0	0
0	0	0.000694	0	0	0	0	0	0	0
0	0	0.000747	0	0	0	0	0	0	0
0	0	0.002256	0	0	0	0	0	0	0
0	0	0.009637	0	0	0	0	0	0	0
0	0	0.000303	0	0	0	0	0	0	0
0	0	0.000475	0	0	0	0	0	0	0
0	0	0.000568	0	0	0	0	0	0	0

MAXHI
0.001193
0.000694
0.000747
0.002256
0.009637
0.000303
0.000475
0.000568

**HARP - Air Dispersion Modeling and Risk Tool v22118

**9/30/2025

**Exported Risk Results

REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INHAL_RIS	SOIL_RISK	DERMAL_R
5	ALL		293042.7	3987210	1.21E-05	1.45YrCan	1.21E-05	0	0
4	ALL		292953	3987213	2.84E-06	1.45YrCan	2.84E-06	0	0
1	ALL		293150.9	3988145	1.50E-06	1.45YrCan	1.50E-06	0	0
9	ALL		293101.4	3986801	9.99E-07	1.45YrCan	9.99E-07	0	0
3	ALL		293955.5	3988106	9.41E-07	1.45YrCan	9.41E-07	0	0
2	ALL		293964	3988164	8.74E-07	1.45YrCan	8.74E-07	0	0
8	ALL		293006.7	3986807	7.15E-07	1.45YrCan	7.15E-07	0	0
7	ALL		292911.5	3986821	5.98E-07	1.45YrCan	5.98E-07	0	0

MMILK_RIS	WATER_RIS	FISH_RISK	CROP_RISK	BEEF_RISK	DAIRY_RISK	PIG_RISK	CHICKEN_R	EGG_RISK
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0

ATTACHMENT B

Biological Resources Evaluation

DRAFT

TULARE COUNTY
RESOURCE MANAGEMENT AGENCY

Reed Schenke, Director
Michael Washam, Associate Director
Aaron Bock, Asst. Director, Economic Development & Planning
Ahmad Alkhayyat, Asst. Director, Public Works

Economic Development & Planning | Public Works
5961 S. Mooney Blvd. Visalia, CA 93277 | (559) 624-7000 | tularecounty.ca.gov/RMA

BIOLOGICAL RESOURCES EVALUATION TECHNICAL MEMORANDUM

DATE: September 15, 2025

TO: Gary Mills, Chief Planner

FROM: Brenda Alcantar, Planner I

SUBJECT: Biological Resources Evaluation for the Pixley Truck Stop Project (CEQ 24-009)

PROJECT DESCRIPTION AND LOCATION

The proposed Pixley Travel Center consists of a 20, square foot convenience store, nine diesel fueling positions, four RV fueling positions, 16 automobile fueling positions, 19 electric automobile charging stations, 16 electric large vehicle charging stations, and a 3100 square fast-food restaurant with drive-through.

The proposed Project is located on the northwest corner of Avenue 120 and Road 124 in northern Pixley, within the assessor's parcel number 300-010-005 and 300-010-015. It is located Pixley UDB and is a by right use. The Project site is located at Latitude 36° 00' 27.93" N, Longitude 119° 17' 42.06" W.[1] The Project site is located within Section(s) 17, Township 22 South, Range 25 East, Mount Diablo Base and Meridian and within the Tipton USGS 7.5-minute Quadrangle. See Attachment A for a map of the Project site plan map Biological Resources Evaluation Technical Memorandum

BIOLOGICAL RESOURCES DATABASE SEARCH

The most recent California Department of Fish and Wildlife's California Natural Diversity Database (CNDDB), RareFind 5 and Biogeographic Information and Observation System (BIOS 6) mapping applications were accessed on September 15, 2025.[2,3] The BIOS 6 Project 9-Quadrangle area species and natural communities map is provided in Attachment B. The RareFind 5 Project 9-Quadrangle area special status species and natural communities list and occurrence report are provided in Attachments E and F, respectively. The RareFind 5 Project Quadrangle (Tipton Quad) area special status species and natural communities list is provided in Attachment D.

JURISDICTIONAL WATERS

[1] Google Earth. https://earth.google.com/web/. Accessed September 2025.

[2] California Department of Fish and Wildlife. CNDDB Maps and Data: RareFind 5. https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed September 2025.

[3] California Department of Fish and Wildlife. Biogeographic Information and Observation System. CDFW BIOS Viewer (accessed from RareFind5 query). https://apps.wildlife.ca.gov/bios6/?al=ds45. Accessed September 2025.

The most recent United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapping applications were accessed on September 18, 2025. The NWI map identifying the various waterways, wetlands, and ponds within the Project planning area and vicinity is provided in Attachment C.[4]

POTENTIAL IMPACTS ON BIOLOGICAL RESOURCES

Project Specific Impacts: The Project site encompasses a portion of the Tipton U.S. Geological Survey quadrangle. Of the ten (10) special-status species and natural communities identified in Attachment D, one species—*Agelaius tricolor* (tricolored blackbird)—has been recorded within the Project site/planning area, while two additional species occur within approximately one mile of the site. These species include *Agelaius tricolor* (tricolored blackbird – **Possibly Extirpated**), *Andrena macswaini* (an andrenid bee – **Presumed Extant**), and *Delphinium recurvatum* (recurved larkspur – **Extirpated**).

These classifications describe the current condition of each recorded occurrence, as maintained by the California Natural Diversity Database (CNDDB):

- **Presumed Extant:** The occurrence is presumed to still exist unless evidence indicates otherwise; this is the most common classification.
- **Possibly Extirpated:** Evidence suggests that habitat degradation or population loss has occurred, but uncertainty remains as to whether the element persists.
- **Extirpated:** The element has not been observed for many years or the habitat at the recorded location has been destroyed, indicating local elimination.

These species include:

Vascular Plants

- *Agelaius tricolor* (tricolored blackbird)

Invertebrate Animals

- *Andrena macswaini* (An andrenid bee)

Vertebrate Animals

- *Delphinium recurvatum* (recurved larkspur)

The proposed Project consists of a highway commercial development including a 20,000-square-foot convenience store, multiple fueling and charging stations for diesel, RVs, automobiles, and large electric vehicles, and a 3,100-square-foot fast-food restaurant with drive-through. With implementation of standard County and CDFW-recommended mitigation measures—including pre-construction surveys, avoidance buffers, and best management practices to protect biological

[4] United States Fish and Wildlife Service. Wetlands Mapper. https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper. Accessed September 2025.

resources—the proposed Project will have a Less Than Significant Impact on any special status species, natural community, or jurisdictional waters.

Cumulative Impacts: The proposed Project would result in physical changes to the environment that could potentially result in impacts to biological resources within the Project area. The proposed Project and future development projects in the Project area are required to follow all applicable permit requirements of the County of Tulare, San Joaquin Valley Air Pollution Control District, Regional Water Quality Control Board, California Department of Fish and Wildlife, and United States Army Corps of Engineers. The proposed Project and future development projects would also implement standard CDFW measures such as pre-construction surveys, avoidance measures, and temporal measures, as well as County standard measures such as Construction Best Management Practices and pre-construction biological education training, as deemed appropriate by Tulare County and CDFW, to reduce potential impacts on biological resources. Therefore, the proposed Project will have a Less Than Significant Cumulative Impact on biological resources.

CONCLUSION

The proposed Project consists of a highway commercial development including a 20,000 sq.ft convenience store, fueling stations for diesel, RVs, and electric vehicles, and a 3,100 sq.ft fast-food restaurant with drive-through, located within the Pixley UDB. While the Project may result in potentially significant impacts related to transportation facilities, these have been evaluated and mitigated through the CEQA process. As such, the proposed Project will have a Less Than Significant Impact on any special status species, natural community, or jurisdictional waters.

Pre-construction Surveys

MM BIO-1: ***(Pre-construction Survey – Plant Species)*** A qualified biologist/botanist shall conduct pre-construction surveys for special status plant species in accordance with the California Department of Fish and Wildlife (CDFW) *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (2009). This protocol includes identification of reference populations to facilitate the likelihood of field investigation occurring during the appropriate floristic period. Surveys should be timed to coincide with flowering periods for species that could occur (March-May). In the absence of protocol-level surveys being performed, additional surveys may be necessary.

- If special status plant species are not identified during pre-construction surveys, no further action is required.
- If special status plant species are detected during pre-construction surveys, the biologist/botanist will supervise establishment of a minimum 50-foot no disturbance buffer from the outer edge of the plant population. If buffers cannot be maintained, the Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW shall be contacted immediately to identify the appropriate minimization actions to be taken as appropriate for the species identified and to determine incidental take permitting needs.

MM BIO-2: ***(Pre-construction Survey – Animal Species)*** A qualified biologist will conduct pre-construction surveys during the appropriate periods for special status animal species in accordance with the CDFW guidance and recommendations identified below (see measures BIO-4, BIO-9, BIO-10). In the absence of protocol-level surveys being performed, additional surveys may be necessary. If special status animal species are not identified during pre-construction surveys, no further action is required. If special status animal species are detected during pre-construction surveys, the Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW shall be contacted immediately to identify the appropriate avoidance and minimization actions to be taken as applicable for the species identified and to determine incidental take permitting needs.

Measures to be Implemented if Special Status Species are Identified

To ensure the Project will have a less than significant impact on special status species within the Project area, the following mitigations measures will be implemented if special status species are identified during pre-construction surveys.

All Identified Special Status Species

MM BIO-3: ***(Employee Education Program***) Prior to the start of construction or decommissioning, the applicant shall retain a qualified biologist/botanist to conduct a tailgate meeting to train all construction staff that will be involved with the project on the special status species that occur, or may occur, on the project site. This training will include a description of the species and its habitat needs; a report of the occurrence of the species in the project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of the measures being taken to reduce impacts to the species during project construction and implementation.

Nesting Raptors and Migratory Birds (including Loggerhead Shrike and Tricolored Blackbird)

MM BIO-4: ***(Pre-construction Survey)*** If Project activities must occur during the nesting season (February 1-August 31), the project proponent and/or their contractor is responsible for ensuring that implementation does not violate the Migratory Bird Treaty Act or relevant Fish and Game Code. A qualified biologist shall conduct pre-construction surveys for active bird nests within 10 days of the onset of these activities. Nest surveys will include all accessible areas on the project site and within 250 feet of the site for tricolored blackbird, loggerhead shrike and other migratory birds, and within 500 feet for all nesting raptors and migratory birds; with the exception of Swainson's hawk. The Swainson's hawk survey will utilize the Swainson's Hawk Technical Advisory Committee *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (2000) methodology and will extend to ½-mile outside of work area boundaries.

Inaccessible areas will be scanned with binoculars or spotting scope, as appropriate. If no nesting pairs are found within the survey area, no further mitigation is required.

BIO-5: ***(Avoidance)*** In order to avoid impacts to nesting birds, construction will occur, where possible, outside the nesting season (between September 1st and January 31st).

BIO-6: ***(Buffers)*** If active nests are found within the survey areas a qualified biologist will establish appropriate no-disturbance buffers based on species tolerance of human disturbance (for example, for tricolored blackbird, no less than 60 feet), baseline levels of disturbance, and barriers that may separate the nest from construction disturbance. These buffers will remain in place until the breeding season has ended or until the qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival.

BIO-7: ***(Compensatory Mitigation)*** If Swainson's hawks are determined to be nesting within ½ mile of alfalfa fields, wheat fields, or other high-quality foraging habitat on an individual project site, as determined by nesting surveys conducted during the nesting season immediately prior to the start of construction (Mitigation Measure 3.3.1a), loss of foraging habitat will be compensated through the purchase of credits from an approved mitigation bank, the preservation of on-site habitats, or the acquisition and preservation of off-site habitats. Habitat suitable for the Swainson's hawk will be preserved at a ratio of one acre of habitat preserved for each acre of habitat permanently disturbed by project construction within ½ mile of the nest. The preservation lands will be protected in perpetuity by conservation easement.

BIO-8: ***(Mortality Reporting)*** The Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW will be contacted immediately by phone and in writing within three days in the event of accidental death or injury of a special status bird species during project-related activities. Notification must include the date, time, location of the incident or of the finding of a dead or injured animal, and any other pertinent information.

An andrenid bee

BIO-9 ***(Habitat Assessment)*** Prior to initiation of ground-disturbing activities, a qualified biologist shall conduct a habitat assessment to evaluate the likelihood of Andrenid bees (Andrena spp.) occurring within and adjacent to the project area. The assessment will document: (1) Presence of suitable nesting habitat (sandy or loose, well-drained soils, open bare ground patches, soil compaction levels). (2) Availability of foraging resources (flowering plants present, floral diversity, percent cover, blooming periods). (3)Landscape features that could support nesting or overwintering (e.g., field edges, un-vegetated patches, or transitional habitats).

BIO-10: ***(Pre-Construction Surveys)*** If suitable habitat is present, pre-construction surveys shall be conducted by a qualified biologist during the Andrenid active season (spring to early summer; specific timing dependent on regional conditions). At least three surveys shall be conducted within the Colony Active Period, spaced 2–4 weeks apart, on warm (65–90°F), low-wind (<8 mph), sunny days with peak bloom present. Surveys shall follow CDFW and Xerces Society protocols, with non-lethal photo vouchers (clear multi-angle photos) collected for identification. Capture and handling, if required, may only be conducted by individuals holding the necessary permits/MOU from CDFW.

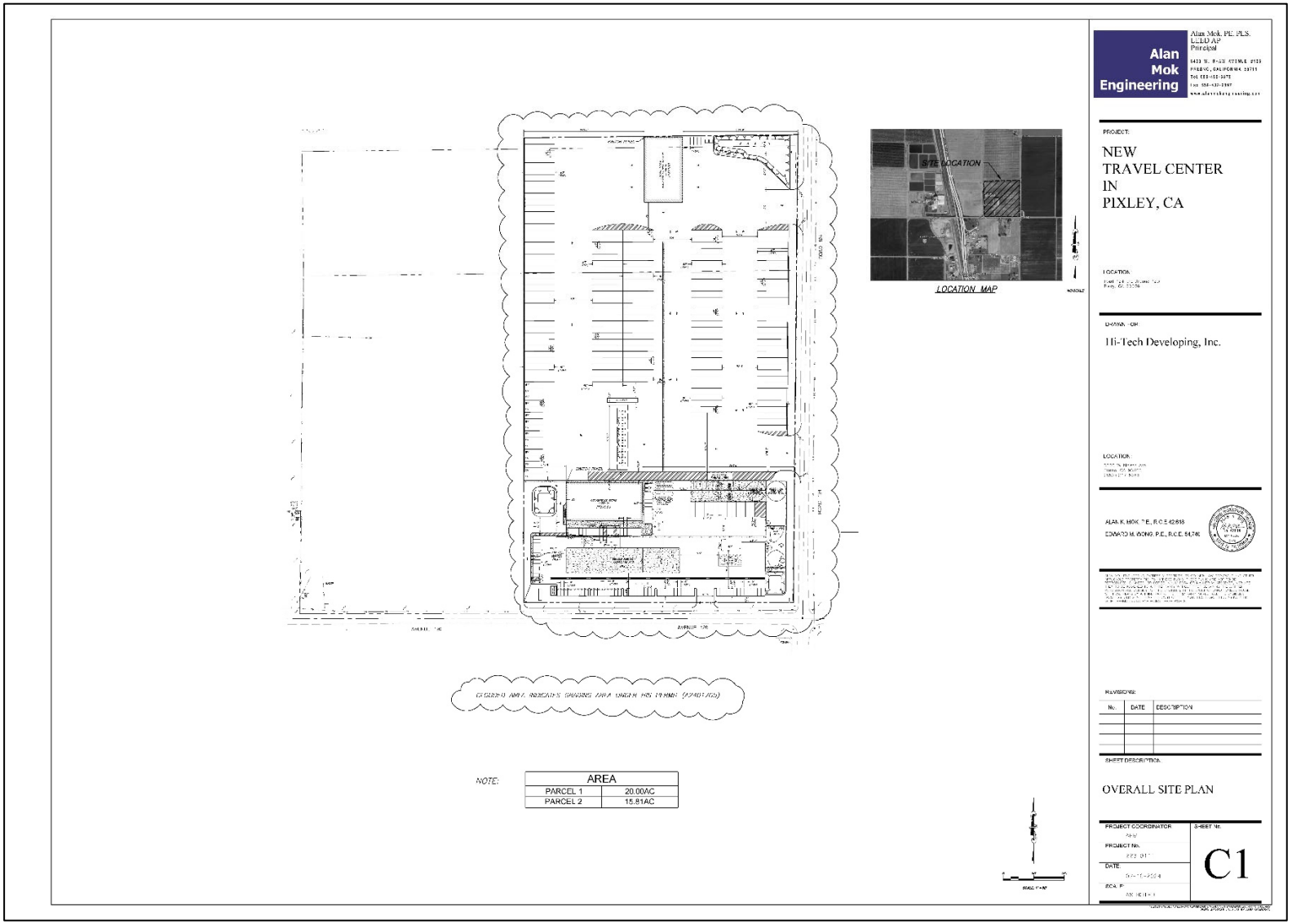
BIO-11: ***(Avoidance)*** Where feasible, project construction will occur outside of the Andrenid bee active season. If construction must occur during the active season, avoidance measures will include: (1) Flagging and preserving patches of bare ground identified as active nesting areas. (2) Avoiding disturbance to soil within known or potential nesting areas. (3) Scheduling high-disturbance activities away from flowering resource patches during peak bloom.

BIO-12: ***(Buffers)*** If active nesting sites are confirmed, a qualified biologist shall establish appropriate no-disturbance buffers around active nests. Buffer size shall be determined based on the extent of the nesting aggregation, site-specific conditions, and sensitivity to disturbance, but shall be no less than 50 feet from the nearest active nest. Buffers shall remain in place until the biologist confirms nest inactivity or the end of the active season.

BIO-13: ***(Compensatory Mitigation, if Required)*** If avoidance is not feasible and project activities will result in the loss of suitable Andrenid bee nesting or foraging habitat, compensatory mitigation may be required. Options include: (1) Creation/preservation of nesting habitat through soil management (maintaining bare ground areas). (2) Enhancement of foraging habitat through planting of native flowering species that bloom across the active season. (3) Purchase of credits from a CDFW-approved pollinator habitat mitigation bank, if available.

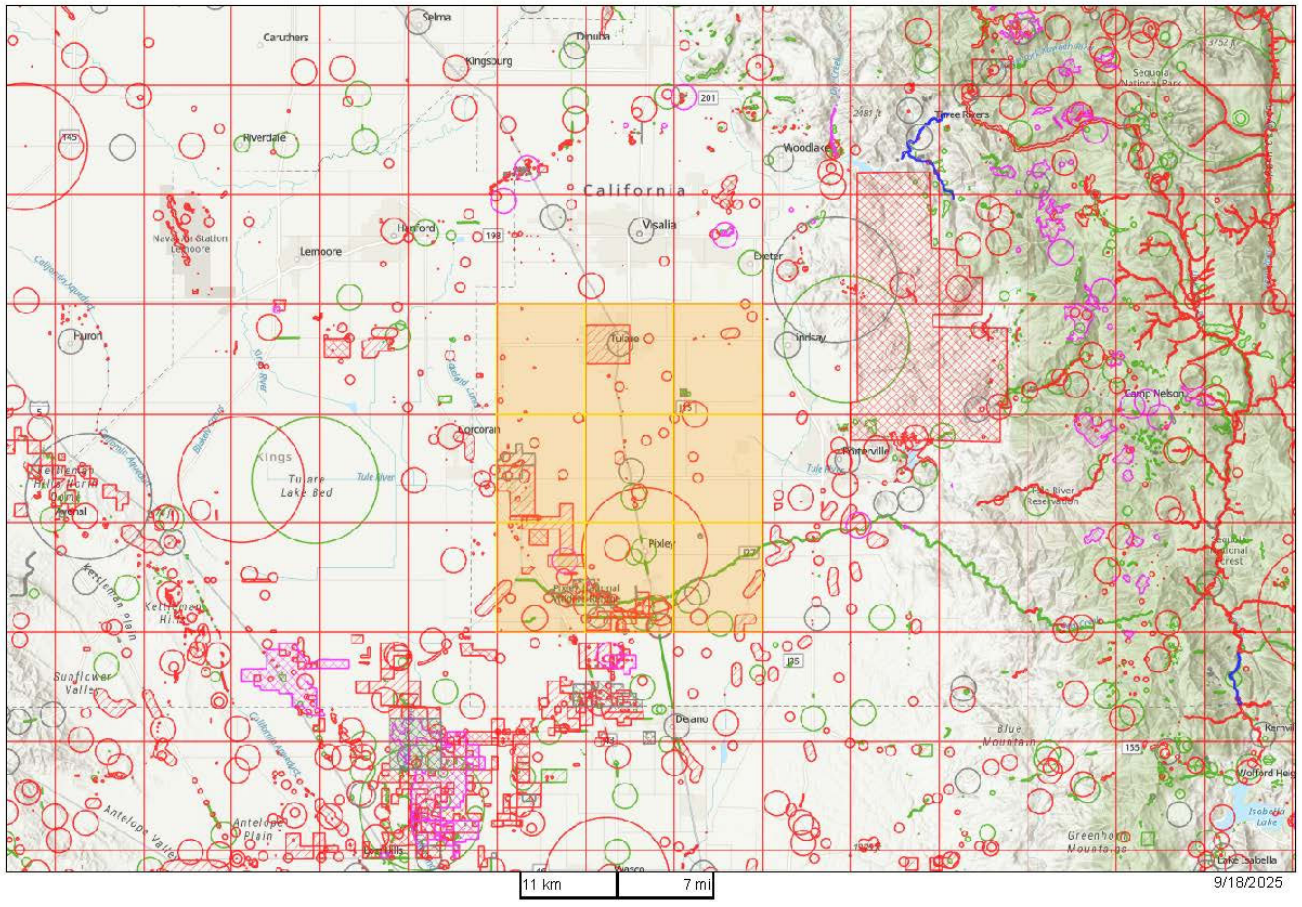
BIO-14: ***(Monitoring and Reporting)*** A qualified biological monitor shall be present during ground-disturbing activities occurring in suitable habitat during the active season. The monitor will ensure compliance with buffers, avoidance areas, and survey protocols. If any special-status Andrenid bees are observed or impacted, the Sacramento Field Office of USFWS and Fresno Field Office of CDFW shall be notified by phone immediately and in writing within three days. Notification will include date, time, location, circumstances, and photographs of the individual or nest. Survey data and monitoring results will be submitted to CNDDB.

Attachment A. Site Plan

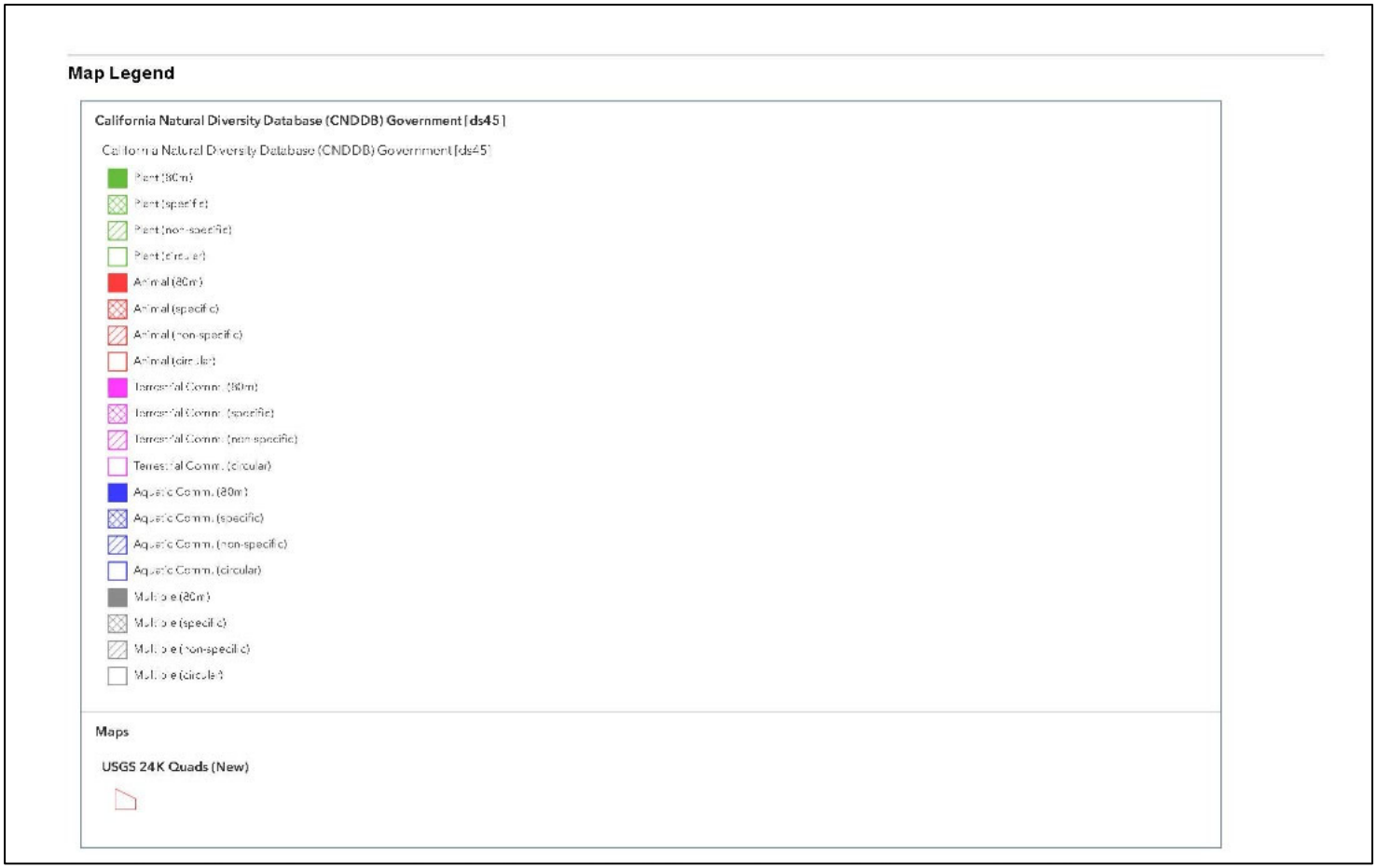


Attachment B. 9-Quad Project Area Map

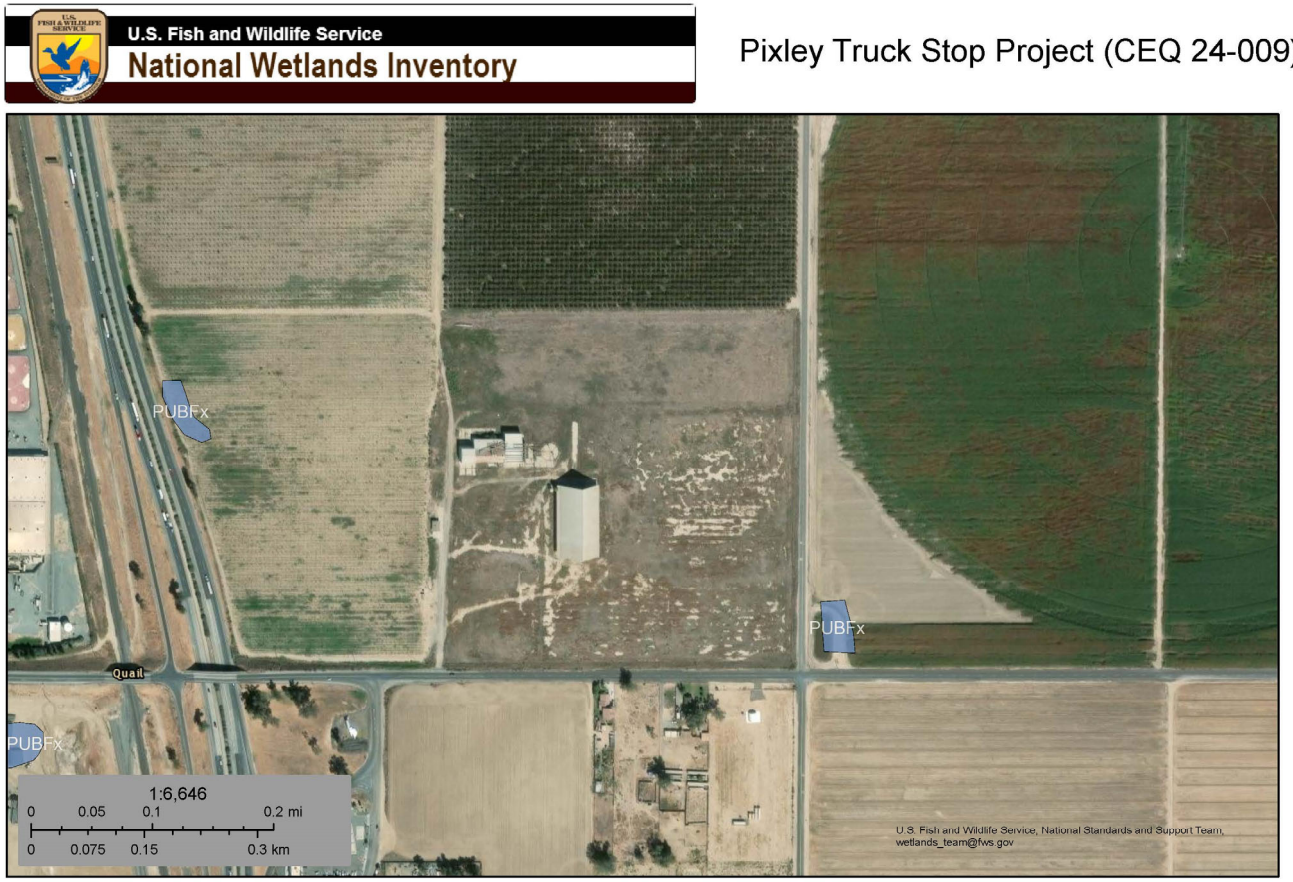
BIOS 6 Map (Pixley Truck Stop Project (CEQ 24-009))



(BIOS 6 Project 9-Quadrangle area species and natural communities map)


Map Legend
California Natural Diversity Database (CNDDB) Government [ds45]
California Natural Diversity Database (CNDDB) Government [ds45]
Plant (80m)
Plant (specific)
Plant (non-specific)
Plant (circular)
Animal (80m)
Animal (specific)
Animal (non-specific)
Animal (circular)
Terrestrial Comm. (80m)
Terrestrial Comm. (specific)
Terrestrial Comm. (non-specific)
Terrestrial Comm. (circular)
Aquatic Comm. (80m)
Aquatic Comm. (specific)
Aquatic Comm. (non-specific)
Aquatic Comm. (circular)
Multiple (80m)
Multiple (specific)
Multiple (non-specific)
Multiple (circular)
Maps
USGS 24K Quads (New)

Attachment C. USFW National Wetland Inventory Map



September 18, 2025

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the *Wetlands Mapper web site.*

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Attachment D. Project Planning Area Species List

(Species recorded within the Tipton Quadrangle)

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Tipton (3611913))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S2	SSC
Andrena macswaini An andrenid bee	IIHYM35130	None	None	G2	S2	
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S4	
Delphinium recurvatum recurved larkspur	PDRAN0B1J0	None	None	G2?	S2	1B.2
Dipodomys nitratoides nitratoides Tipton kangaroo rat	AMAFD03152	Endangered	Endangered	G2T1T2	S2	
Gambelia sila blunt-nosed leopard lizard	ARACF07010	Endangered	Endangered	G1	S2	FP
Lanius ludovicianus loggerhead shrike	ABPBR01030	None	None	G4	S4	SSC
Lytta morrisoni Morrison's blister beetle	IICOL4C040	None	None	G1G2	S2	
Spea hammondii western spadefoot	AAABF02020	Proposed Threatened	None	G2G3	S3S4	SSC
Vulpes macrotis mutica San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2	S3	

Record Count: 10

Government Version -- Dated August, 31 2025 -- Biogeographic Data Branch

Page 1 of 1

Report Printed on Tuesday, September 16, 2025

Information Expires 2/28/2026

Attachment E. Project Planning Area 9-Quad Species List

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Tipton (3611913) OR Paige (3611924) OR Tulare (3611923) OR Cairns Corner (3611922) OR Taylor Weir (3611914) OR Woodville (3611912) OR Alpaugh (3511984) OR Pixley (3511983) OR Sausalito School (3511982))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S2	SSC
Andrena macswaini An andrenid bee	IIHYM35130	None	None	G2	S2	
Anniella grinnelli Bakersfield legless lizard	ARACC01050	None	None	G2G3	S2S3	SSC
Athene cunicularia burrowing owl	ABNSB10010	None	Candidate Endangered	G4	S2	SSC
Atriplex cordulata var. erecticaulis Earlimart orache	PDCHE042V0	None	None	GNRT1	S1	1B.2
Atriplex coronata var. vallicola Lost Hills crownscale	PDCHE04371	None	None	G4T3	S3	1B.2
Atriplex depressa brittlescale	PDCHE042L0	None	None	G2	S2	1B.2
Atriplex minuscula lesser saltscale	PDCHE042M0	None	None	G2	S2	1B.1
Atriplex persistens vernal pool smallscale	PDCHE042P0	None	None	G2	S2	1B.2
Atriplex subtilis subtle orache	PDCHE042T0	None	None	G1	S1	1B.2
Bombus crotchii Crotch's bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S4	
Caulanthus californicus California jewelflower	PDBRA31010	Endangered	Endangered	G1	S1	1B.1
Charadrius montanus mountain plover	ABNNB03100	None	None	G3	S2	SSC
Charadrius nivosus nivosus western snowy plover	ABNNB03031	Threatened	None	G3T3	S3	SSC
Cicindela tranquebarica joaquinensis San Joaquin tiger beetle	IICOL0220E	None	None	G5T1	S1	
Delphinium recurvatum recurved larkspur	PDRAN0B1J0	None	None	G2?	S2	1B.2
Dipodomys nitratoides nitratoides Tipton kangaroo rat	AMAFD03152	Endangered	Endangered	G2T1T2	S2	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Eremalche parryi ssp. kernensis Kern mallow	PDMAL0C031	Endangered	None	G3G4T3	S3	1B.2
Gambelia sila blunt-nosed leopard lizard	ARACF07010	Endangered	Endangered	G1	S2	FP
Lanius ludovicianus loggerhead shrike	ABPBR01030	None	None	G4	S4	SSC
Lasthenia chrysantha alkali-sink goldfields	PDAST5L030	None	None	G2	S2	1B.1
Lasthenia glabrata ssp. coulteri Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
Lytta morrisoni Morrison's blister beetle	IICOL4C040	None	None	G1G2	S2	
Masticophis flagellum ruddocki San Joaquin coachwhip	ARADB21021	None	None	G5T2T3	S3	SSC
Monolopia congdonii San Joaquin woollythreads	PDASTA8010	Endangered	None	G2	S2	1B.2
Northern Claypan Vernal Pool Northern Claypan Vernal Pool	CTT44120CA	None	None	G1	S1.1	
Onychomys torridus tularensis Tulare grasshopper mouse	AMAFF06021	None	None	G5T1T2	S1S2	SSC
Perognathus inornatus San Joaquin pocket mouse	AMAFD01060	None	None	G3	S2S3	
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G4	S4	SSC
Pseudobahia peirsonii San Joaquin adobe sunburst	PDAST7P030	Threatened	Endangered	G1	S1	1B.1
Puccinellia simplex California alkali grass	PMPOA53110	None	None	G2	S2	1B.2
Spea hammondii western spadefoot	AAABF02020	Proposed Threatened	None	G2G3	S3S4	SSC
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Valley Sacaton Grassland Valley Sacaton Grassland	CTT42120CA	None	None	G1	S1.1	
Vulpes macrotis mutica San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2	S3	

Record Count: 37

Attachment F. Project Planning Area 9-Quad Occurrence Report

(contains confidential information - available to CDFW upon request)

ATTACHMENT C

California Native American Heritage Commission Sacred Lands File Search

DRAFT

California Historical Resources Information System



Fresno
Kern
Kings
Madera
Tulare

Southern San Joaquin Valley Information Center
California State University, Bakersfield
Mail Stop: 72 DOB
9001 Stockdale Highway
Bakersfield, California 93311-1022
(661) 654-2289
E-mail: ssjvic@csub.edu
Website: www.csub.edu/ssjvic

To: Gary Mills
Tulare County Resource Management Agency
5961 South Mooney Blvd.
Visalia, CA 93277

Record Search 24-366

Date: August 19, 2024

Re: MND for Pixley Truck Stop

County: Tulare

Map(s): Tipton 7.5'

CULTURAL RESOURCES RECORDS SEARCH

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

The following are the results of a search of the cultural resource files at the Southern San Joaquin Valley Information Center. These files include known and recorded cultural resources sites, inventory and excavation reports filed with this office, and resources listed on the National Register of Historic Places, the OHP Built Environment Resources Directory, California State Historical Landmarks, California Register of Historical Resources, California Inventory of Historic Resources, and California Points of Historical Interest. Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the OHP are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area.

PRIOR CULTURAL RESOURCE STUDIES CONDUCTED WITHIN THE PROJECT AREA AND THE ONE-HALF MILE RADIUS

According to the information in our files, there have been no previous cultural resource studies completed within the project area. There have been four cultural resource studies conducted within the one-half mile radius: TU-00102, TU-01173, TU-01324, and TU-01629.

KNOWN/RECORDED CULTURAL RESOURCES WITHIN THE PROJECT AREA AND THE ONE-HALF MILE RADIUS

According to the information in our files, there are no recorded resources within the project area, and it is unknown if any exist there. There is one recorded resource within the one-half mile radius, P-54-004626, an historic era railroad.

There are no recorded cultural resources within the project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, for the California State Historic Landmarks.

COMMENTS AND RECOMMENDATIONS

We understand this project consists of construction of a travel stop/shopping center on two parcels totaling approximately 37 acres. No information was given as to the current state of the property. However, aerial images reveal one existing building and agricultural usage. Please note that farming does not constitute previous development, as it does not destroy cultural resources, but merely moves them around within the plow zone. Because a cultural resources study has not been previously conducted on this property, it is unknown if any cultural resources exist there. Therefore, prior to ground disturbance activities, we recommend a qualified, professional consultant conduct a field survey to determine if cultural resources are present. Additionally, according to our files, the existing building has never been recorded or evaluated for historical significance. If this structure is more than 45 years old, prior to alteration or demolition, we recommend a qualified, professional consultants record and evaluate it for historical significance. A referral list is available at www.chrisinfo.org.

We also recommend that you contact the Native American Heritage Commission in Sacramento. They will provide you with a current list of Native American individuals/organizations that can assist you with information regarding cultural resources that may not be included in the CHRIS Inventory and that may be of concern to the Native groups in the area. The Commission can consult their "Sacred Lands Inventory" file to determine what sacred resources, if any, exist within this project area and the way in which these resources might be managed. Finally, please consult with the lead agency on this project to determine if any other cultural resource investigation is required. If you need any additional information or have any questions or concerns, please contact our office at (661) 654-2289.

By: 

Celeste M. Thomson, Coordinator **Date**: August 19, 2024

Please note that invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.

ATTACHMENT D

Technical Report to Support (Willbanks Environmental Consulting)

DRAFT

WILLBANKS
ENVIRONMENTAL CONSULTING, INC
8413 N Millbrook Avenue, Suite 110 • Fresno, CA 93720
(559) 797-4181 Office • WECenvironmental.com

November 15, 2024 WEC Project 24.380

Alysia Lyons
Project Coordinator
Hi-Tech Developing, Inc.
3506 W Nielsen Avenue
Fresno, CA 93706

Re: Technical Report to Support Mitigated Negative Declaration
New Travel Center
Pixley, California

Dear Ms. Lyons:

Willbanks Environmental Consulting, Inc. (WEC) has prepared this technical report for Hi-Tech Developing, Inc. (Hi-Tech) to support completion of portions of the California Environmental Quality Act (CEQA) environmental checklist for the proposed Travel Center project located on Road 124 and Avenue 120 in Pixley, California (Site). We understand that the Tulare County Planning Department has requested an "overall environmental analysis" for the project, specifically indicating that the project may require a mitigated negative declaration or Expanded Categorical Exemption, in accordance with the California Environmental Quality Act (CEQA). We understand that you have retained WEC to assist with the assessment of potential environmental project-related impacts associated with hydrology/water quality, utilities (including water and wastewater), hazardous waste, hazardous materials, and geology/soils. These topics are specifically identified in various sections of Appendix G of CEQA, also referenced as the environmental checklist or initial study checklist. As such, WEC has evaluated these topics in the context of Appendix G guidelines, to the extent we have been able, based on the project information made available to us.

The attached report is divided into stand-alone sections and completed checklists that Hi-Tech may insert into its Tulare County permitting documents or present as an attachment or appendix to its permitting documents.

As we understand, certain project design criteria will serve to mitigate what might otherwise be potential environmental impacts. Specifically, the applicant should perform a geotechnical/soils evaluation to address potential seismic and soil conditions, including structural components and wastewater/stormwater disposal/management. The applicant should coordinate with the Regional Water Quality Control Board (RWQCB) to determine potential wastewater disposal criteria, including the possible applicability of Waste Discharge Requirements. The applicant should also coordinate with the local electricity provider to ensure that load and transmission systems are capable of serving the project's needs, particularly considering the project's proposed EV charging stations.

Please contact the WEC office at (559) 797-4181, if you have any questions.

Regards,
Willbanks Environmental Consulting, Inc.

Burton Gilpin, PG, CEG, CHG
Senior Hydrogeologist

Noelle A. Willbanks, P.E.
Principal Engineer

TABLE OF CONTENTS

1.0 INTRODUCTION 1
2.0 PROJECT DESCRIPTION 1
3.0 GEOLOGY AND SOILS 3
4.0 HAZARDS AND HAZARDOUS MATERIALS 7
5.0 HYDROLOGY AND WATER QUALITY 11
6.0 MINERAL RESOURCES 16
7.0 UTILITIES AND SERVICE SYSTEMS 18
8.0 LIMITATIONS 20

TECHNICAL REPORT
TO SUPPORT INITIAL STUDY CHECKLIST
NEW TRAVEL STOP
PIXLEY, CALIFORNIA

1.0 INTRODUCTION

Willbanks Environmental Consulting, Inc. (WEC) was retained by Hi-Tech Developing, Inc. (Hi-Tech) to prepare this report of technical commentary to support completion of portions of the California Environmental Quality Act (CEQA) environmental checklist for the proposed Travel Center project located on Road 124 and Avenue 120 in Pixley, California (Site). We understand that the Tulare County Planning Department has requested an "overall environmental analysis" for the project, specifically indicating that the project may require a mitigated negative declaration (MND) or Expanded Categorical Exemption, in accordance with CEQA. We understand that you have retained WEC to assist with the assessment of potential environmental project-related impacts associated with hydrology/water quality, utilities (including water and wastewater), hazardous waste, hazardous materials, and geology/soils. These topics are specifically identified in various sections of Appendix G of CEQA, also referenced as the environmental checklist or initial study checklist. As such, WEC has evaluated these topics in the context of Appendix G guidelines.

The individual topic discussions and checklists are based on WEC's understanding of the project as described in project plans prepared by Alan Mok Engineering, and anecdotal information supplied by Hi-Tech. WEC has not been provided with a narrative of the project description. The first section of this report comprises a brief project description, as we understand it, followed by technical commentary and completed checklists for each CEQA topic included.

2.0 PROJECT DESCRIPTION

The proposed Travel Center project is located on the northwest corner of the intersection of Road 124 and Avenue 120 in Pixley, California (Site). It is located on the east side of State Highway 99, on the north side of Avenue 120, just off the "Ave 120" exit (Exit 73) off of Highway 99. The project is proposed on approximately 20 acres of the eastern portions of two contiguous parcels measuring approximately 20.00 and 15.81 acres, identified by Tulare County Assessor's Parcel Numbers (APNs) 300-101-005 and 300-010-015, respectively. The project comprises an approximately 20,000-sqaure-foot convenience store and an expansive truck and automotive fueling/charging facility.

The project plans include 10 diesel islands for truck fueling, two RV fueling islands, 16 vehicle (gasoline) fueling islands, 18 electric vehicle (EV) charging stations, a truck scale, a truck wash and service building, a pet/playground area for customers, and extensive truck parking areas. The fueling facilities are serviced by three 12,000-gallon gasoline underground storage tanks (USTs), and four 12,000-gallon aboveground fuel storage tanks (ASTs). It includes aboveground tanks and dispensers for biodiesel blender and diesel-emissions fluid (DEF). Ancillary facilities include two 80,000-gallon fire-water tanks, stormwater management facilities including appropriate surface grading, concrete valley gutter and drop inlets, and two stormwater basins (one of the north and one on the south side of the Site), and multiple septic tanks with associated oil-water separators (where appropriate), and seepage-pits. Except for the areas of the playground and stormwater basins, the Site surface will be paved with asphalt and/or concrete.

The southern portion of the project site (i.e., APN 300-101-0050) is currently developed as a cotton-ginning facility with scale and office structure. Plans call for this facility to be demolished prior to construction of the Travel Center. Project plans include a Demolition Plan and need for a demolition permit, to be obtained from Tulare County. The project will also require a construction stormwater pollution prevention (SWPP) plan and permit.

The plans include facilities to manage the disposal of wastewater/sewerage on site through several septic systems, and site water (potable, landscaping, and fire suppression) will be provided by an on-site groundwater well which will require permitting through the State as a Public Water System. We understand that the project proposes to consume a maximum of 9,000 gallons of water per day (gpd) (i.e., 4,000 gpd for operation of convenience store and general truck stop operations and 5,000 gpd for the truck wash). Depending on the volume of wastewater generated, the applicant may be required to obtain a Waste Discharge Permit from the Regional Water Quality Control Board (RWQCB). Generally, discharge of 10,000 gpd will trigger the need for waste discharge requirements. Electric, gas, garbage, and telecommunication services will be provided by private and/or public providers. The project applicant will coordinate with the local electricity provider to confirm that adequate transmission and supply exist to service the project, including the 18 proposed EV charging stations.

3.0 GEOLOGY AND SOILS

Would the project:	SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LASS THAN SIGNIFICANT IMPACT	NO IMPACT
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 No. 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☒	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☒	☐	☐

f)	Directly or indirectly destroy a site or unique paleontological resource or unique geologic feature?)	☐	☐	☒	☐

- No Significant Impacts Identified.
- Mitigation to reduce potential impacts of seismic shaking and possible expansive soils will include performance of a site-specific geotechnical/soils investigation to support proper foundation design for structures and design for wastewater-disposal systems that include wastewater disposal to land (e. g., leach pits or fields).
- Considering Site location, topography, and depth to groundwater, the Site is not subject to surface rupture, liquefaction, landslides, or slope failure (i.e., No Impacts).

A detailed, site-specific geohazards assessment has not been performed to support the discussion that follows. The *Tulare County General Plan, 230 Update* (2012), the *Five County Seismic Safety Element, Fresno, Kings, Madera, Mariposa, & Tulare Counties* (1974), the *Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan* (March 2023), DWR well completion reports, and stratigraphic well logs were reviewed in the preparation of the narrative that follows. A site-specific geotechnical investigation should be performed to support foundation design. However, existing state/local codes, standards, plans, policies, regulations, etc., should be sufficient to minimize/mitigate potential impacts associated with potential geologic hazards at the site.

The subject property is situated within the central portion of the San Joaquin Valley. The San Joaquin Valley comprises the southern portion of the Great Valley Geomorphic Province of the State of California. The Great Valley is a long structural trough situated between the Sierra Nevada and Cascade Range to the east, the Coast Range to the west, and the Tehachapi Mountains to the south. The San Joaquin Valley has been filled with several thousand feet of sedimentary deposits derived from the erosion of the Sierra Nevada and Coast Range and deposited by major to minor drainages and their tributaries. Near-surface sediments are dominated by sands and silty sands with lesser silts, minor clays, and gravel. The sedimentary deposits in the region form large coalescing alluvial fans with gentle slopes deposited primarily during Plio-Pleistocene time by the streams that drain the adjacent uplands. Sediments consist of recent and older alluvium derived primarily from the Sierra Nevada. Older (Pleistocene) alluvium unconformably overlies Pliocene-Pleistocene continental and marine deposits. The valley basement, consisting of pre-Tertiary granitic and metamorphic rocks, underlies the clastic section at a depth in excess of 2,000 feet below ground surface.

The project site is not located in a mapped Alquist-Priolo Earthquake Fault Zone. Although located outside of Tulare County, the San Andreas Fault and the Owens Valley Fault Group are considered the two principal sources of damaging earthquakes for the project site.
Earthquake intensity is an expression of the amount of shaking at any given location on the ground surface. Intensity is measured on the Modified Mercalli Intensity Scale (MMI), ranging from I (shaking “Not Felt”) to X (shaking “Extreme”). Seismic shaking is typically the greatest cause of losses to structures during earthquakes. The USGS has evaluated potential shaking associated with



earthquakes on faults that would cause shaking on the site (specifically, the San Andreas and the Ownes Valley Fault Group). At the site, the USGS has mapped (USGS Earthquake Scenario Map, BSCS 2014) a predicted MMI of VI, corresponding to "Strong" shaking "felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight."

Liquefaction involves a sudden loss in strength of a saturated, cohesionless soil (predominantly sand) which is caused by shock or strain, such as an earthquake, and results in temporary transformation of the soil to a fluid mass. Liquefaction typically occurs in areas where the groundwater is less than 30 feet from the surface, and where the soils are composed predominantly of poorly consolidated fine sand. Well logs for water supply wells in the project vicinity indicate that the on-site soil types are likely not conducive to liquefaction; they either contain too much clay or are of too coarse a texture. According to the DWR SGMA Data Viewer program, depth to water in the vicinity of the project is about 240 feet below ground surface (bgs). Further, the maximum ground surface accelerations from the expected earthquakes are too low on the east side of the Valley to produce the shock necessary to initiate liquefaction (*Five County Seismic Safety Element, Fresno, Kings, Madera, Mariposa, & Tulare Counties* (1974)). In summary, none of the conditions for liquefaction to occur appear to exist on the subject site.
The proposed project is located on the Central Valley floor, where topographic relief is very subtle and for all practical purposes, flat. There are no mechanisms present to support landslides, even under seismic conditions.

National Cooperative Soil Survey soil types on the property comprise Akers-Akers and Tagus Loam. Both soils form on level ground with generally less than 1% to 2% slopes. Akers soils are described as:

- Texture: Fine sandy loam, silt loam or loam.
- Clay content: 8 to 18 percent.
- Akers soils are on terraces. The slopes are 0 to 2 percent. The soils formed in alluvium derived from granitic rocks. Elevations are 225 to 350 feet. The climate is semiarid with hot, dry summers and cool, moist winters. The mean annual precipitation is 8 to 12 inches. The mean annual temperature is 62 degrees to 65 degrees F. Frost-free season is 225 to 300 days.
- Well drained; negligible runoff; moderate permeability. Saline-sodic phases have moderately slow permeability.

Tagus Loam soils are described as:

- Texture: Loam, fine sandy loam, or sandy loam.
- Clay content: 10 to 18 percent.
- The Tagus series consists of very deep, well drained soils formed in alluvium derived from granitic rock sources. Tagus soils are on terraces and have slopes of 0 to 2 percent. The average annual precipitation is about 10 inches, and the average annual temperature is about 63 degrees F.

Expansive soil does not appear to exist on-site but a geotechnical/soils investigation should be conducted to support this conclusion.

Pixley receives a little over 9 inches of precipitation annually. Considering the subject site is flat, erosion potential is low. Nonetheless, construction on site will require completion of a stormwater pollution prevention plan and permit, and adherence to stormwater best practices. Site development, including the construction of paved surfaces and incorporation of stormwater facilities (basin) will minimize the potential for any surface erosion.
Soils on site are not expected to be overly expansive and should be conducive to the operational effectiveness of an on-site septic system. A site-specific geotechnical investigation should be performed to support design criteria for both structures/pavements and septic design.

The property has historically been cultivated and developed agriculturally. As such, any paleontological resources in the upper two to three feet of the soil horizon have already been disturbed. As such, the impact to potential paleontological resources is considered less than significant.

A geotechnical/soils investigation should be incorporated into the project design, including seismic and soil criteria, for wastewater disposal (e.g., seepage pits), pavement design, and structural components.

4.0 HAZARDS AND HAZARDOUS MATERIALS

Would the project:	SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LASS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
f) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

- No Significant Impacts Identified.
- Mitigation to reduce potential impacts of hazardous substances releases (e.g., spills and leaks of petroleum) will include incorporation of double-walled tanks, secondary containment, leak-detection systems and other public safety design criteria contained in local, State, and Federal Codes/Regulations.
- The Site is not in proximity to a school or area subject to wildfire; it is not located on or near a property identified as having experienced hazardous material releases (i.e., No Impacts).

"A hazardous material is defined by the California Code of Regulations (CCR) as a substance that, because of physical or chemical properties, quantity, concentration, or other characteristics, may either (1) cause an increase in mortality or an increase in serious, irreversible, or incapacitating, illness; or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of (CCR, Title 22, Division 4.5, Chapter 10, Article 2, Section 66260.10)."163 "Hazardous wastes are hazardous materials that no longer have practical use, such as substances that have been discarded, discharged, spilled, contaminated, or are being stored prior to proper disposal. According to Title 22 of the CCR, hazardous materials and hazardous wastes are classified according to four properties: toxic, ignitable, corrosive, and reactive (CCR, Title 22, Chapter 11, Article 3)."

The project is expected to comprise the storage and retail sales of diesel fuel, gasoline, and other petroleum products (lubricants, oil, grease, etc.), bulk and small-container diesel exhaust fluid (DEF), solvents and degreasers, detergents (truck wash), cleansers, and other chemical products, associated with fueling, minor truck servicing, truck washing, and operation & maintenance of a convenience store (e.g., compressed gasses, pest-control chemicals and poisons, etc.). If water treatment is required for a public water supply system, other water purification chemicals (e.g., chlorine) may be stored and dispensed on-site.

Depending on the scope of truck maintenance services provided, waste oils, lubricants, filters, and rags may also be generated. Wastewater generated during truck washing will pass through an oil-water separator before entering a septic system. The oil-water separator may generate a mixture of water, soil, and sludge waste.

The project is expected to generally comply with the Tulare County General Plan which includes the following relevant elements related to Hazardous Materials:

HS-4.1 Hazardous Materials
The County shall strive to ensure hazardous materials are used, stored, transported, and disposed of in a safe manner, in compliance with local, State, and Federal safety standards, including the Hazardous Waste Management Plan, Emergency Operations Plan, and Area Plan.

HS-4.2 Establishment of Procedures to Transport Hazardous Wastes
The County shall continue to cooperate with the California Highway Patrol (CHP) to establish procedures for the movement of hazardous wastes and explosives within the County.

HS-4.4 Contamination Prevention



The County shall review new development proposals to protect soils, air quality, surface water, and groundwater from hazardous materials contamination.

HS-4.8 Hazardous Materials Studies
The County shall ensure that the proponents of new development projects address hazardous materials concerns through the preparation of Phase I or Phase II hazardous materials studies for each identified site as part of the design phase for each project.

HS-4.9 Pesticide Use
The County shall support an integrated pest management program which includes the biological control methods overseen by the Tulare County Agricultural Commissioner's Office.
These General Plan elements will serve to reduce potential impacts associated with the project.

Additional Fuel Storage Requirements
As defined in Title 40 of the Code of Federal Regulations (40 CFR), Part 112, owners and operators of onshore and offshore facilities that have discharged or could reasonably be expected to discharge oil in harmful quantities, as defined in 40 CFR Part 110, into or upon the navigable waters (including groundwater) of the United States or adjoining shorelines, shall prepare a Spill Prevention Control and Countermeasure (SPCC) Plan.

The goal of this SPCC Plan is to prevent spills and leaks of potential pollutants that could adversely impact either surface water or groundwater. The Plan emphasizes pollution prevention rather than treatment. To attain these goals, the elements of this Plan are structured to provide the following results:

- The identification and assessment of sources and activities that could potentially result in the pollution of surface water and groundwater.

- The development and implementation of appropriate measures and controls, referred to as "Best Management Practices" (BMPs), to prevent surface water and groundwater pollution.

The key elements of this Plan also meet many of the requirements for plans under numerous regulatory programs. The Plan will assist in complying with the following Federal or equivalent State requirements, where applicable to the proposed project:

- SPCC Plan requirements under 40 CFR Part 112 to control oil discharges to surface waters.

- National Pollutant Discharge Elimination System (NPDES) Best Management Practices requirements under 40 CFR Part 125 to control wastewater discharges to surface waters.

- NPDES Toxic Organic Management Plan under 40 CFR Parts 413, 433, and 469 to control wastewater discharges to surface waters or publicly owned treatment works (POTWs).

- Storm Water Pollution Prevention Plan (SWPPP) requirements under 40 CFR Part 122 to control storm water discharges to surface waters.



- Preparedness, Prevention, and Contingency Plan under 40 CFR Part 265 related to Federal Resource Conservation and Recovery Act (RCRA) hazardous wastes.

Compliance with local, State, and Federal laws governing petroleum storage/dispensing are expected to reduce potential environmental hazards associated with the project to less than significant.

Small Quantity Generation
If the project generates small quantities of hazardous waste, management/disposal of those wastes will fall under the authority/jurisdiction of State and Federal Environmental Protection Agencies and requires registration with those entities to dispose of small quantities off-site. Compliance with local, State, and Federal laws governing hazardous waste generation, storage, and disposal are expected to reduce potential environmental hazards associated with the project to less than significant.

Project Location
The Site is not located within one mile of an active site identified by the California Regional Water Quality Control Board's (RWQCB) GeoTracker database. The database identifies a large number of land uses that are potentially noteworthy, including leaking tank sites, military installations, landfills, groundwater cleanup sites, fertilizer and/or pesticide handling sites, waste treatment facilities, mines, recycled water use sites, etc.

The project is located on land identified by Tulare County as Urban Development. It is not located in or near a community identified by the California Department of Forestry and Fire Protection (CalFire) as "at risk from wildfire."



5.0 HYDROLOGY AND WATER QUALITY

Would the project:	SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LASS THAN SIGNIFICANT IMPACT	NO IMPACT
	☐	☒	☐	☐
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?				
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☒	☐	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☐	☒
i) Result in substantial erosion or siltation on-or offsite?	☐	☒	☐	☐
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?	☐	☒	☒	☐
iv) Impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of water quality control plan or sustainable groundwater management plan?	☐	☒	☐	☐

- No Significant Impacts Identified.

- Mitigation to reduce potential impacts of wastewater disposal (i.e., septic), groundwater withdrawal, collection/concentration of stormwater run-off, and/or water quality control plans will include incorporation design criteria contained in local, State, and Federal Codes/Regulations related to appropriate and mandated wastewater-disposal-system design criteria and on-site stormwater-collection ponds and best-management practices. The water supply to the project will require separate evaluation and permitting as a Public Water System (PWS), subject to authorization by State and local authorities, including provisions of the local Groundwater Management Plan.
- The Site is not in proximity to a river or floodway, nor subject to seiches or tsunamis (i.e., No Impacts).

The proposed project is located on the southern boundary of the Lower Tule River Irrigation District (LTRID or District), Tule Subbasin, and subject to its Groundwater Sustainability Agency (GSA) Groundwater Sustainability Plan (GSP). The California Water Code § 10753.8 authorizes the GSA to manage groundwater through its GSP, which may include procedures for identification and management of wellhead protection areas and recharge areas; regulation of the migration of contaminated groundwater; mitigation of conditions of overdraft; monitoring of groundwater levels and storage; facilitating conjunctive use operations; and identification of well construction policies.

The discussion that follows has been excerpted from the GSP (LTRID, revised September 5, 2024) and California Department of Water Resources (DWR) Groundwater Bulletin 118.
The Tule Subbasin is one of the top producing agricultural regions in the area, with very fertile soils and wide diversity of crops. The Tule Subbasin includes seven GSAs that have coordinated efforts per the adopted SGMA regulations through a common Coordination Agreement but each with a separate GSP.

The Tulare County General Plan 2030 Update (Tulare County GP) includes water resource management elements that include:

Agricultural Preservation – Agriculture Related Land Uses: "The County shall allow agriculturally-related uses, including value added processing facilities by discretionary approvals in areas designated Valley or Foothill Agriculture, subject to the following criteria: … The operational or physical characteristics of the use shall not have a significant adverse impact on water resources or the use or management of surrounding agricultural properties within at least one-quarter (1/4) mile radius…."

Environmental – Water: "The long-term strategy for water in Tulare County centers on protecting and conserving existing water supplies and identifying new sources of water. As Tulare County continues to grow, new methods for conserving, treating, and supplying water will enable County residents and farmers to continue to have an adequate supply of quality water that limits long-term impacts on groundwater."

Environmental - Protection: "Protect the supply and quality of urban, agricultural, and environmental water serving the County..."



Environmental - New Sources: "Identify and encourage the development of new sources for water that do not deplete or negatively impact groundwater…."

Environmental - Recharge: "Identify and encourage the development of locations where water recharge systems can be developed to replenish water supplies…."

Environmental - Adequate Supply: "Plan delivery systems to ensure adequate water is available to meet demands..."

Environmental - Conservation: "Encourage efficient use, conservation, and reuse of water…"

Flood Hazards - Multi-Purpose Flood Control Measures: "The County shall encourage multipurpose flood control projects that incorporate recreation, resource conservation, preservation of natural riparian habitat, and scenic values of the County's streams, creeks, and lakes. Where appropriate, the County shall also encourage the use of flood and/or stormwater retention facilities for use as groundwater recharge facilities."

Water Resources – General, Groundwater Withdrawal: "The County shall cooperate with water agencies and management agencies during land development processes to help promote an adequate, safe, and economically viable groundwater supply of existing and future development within the County. These actions shall be intended to help the County mitigate the potential impact on groundwater resources identified during the planning and approval proc esses."

Water Resources – General, Water Export Outside County: "The County shall regulate the permanent export of groundwater and surface water resources allocated to users within the county to cities and service providers outside the County to the extent necessary to protect the public health, safety, and welfare. The County shall strive for a "no net loss" where there may be exchanges serving a public purpose."

Water Resources – General, Groundwater Basin Management: "The County shall take an active role in cooperating in the management of the County's groundwater resources."

Water Resources – General, Groundwater Overdraft: "The County shall consult with water agencies within those areas of the County where groundwater extraction exceeds groundwater recharge, with the goal of reducing and ultimately reversing groundwater overdraft conditions in the County."

Water Resources - Water Quality, Protect Water Quality: "All major land use and development plans shall be evaluated as to their potential to create surface and groundwater contamination hazards from point and nonpoint sources. The County shall confer with other appropriate agencies, as necessary, to assure adequate water quality review to prevent soil erosion; direct discharge of potentially harmful substances; ground leaching from storage of raw materials, petroleum products, or wastes; floating debris; and runoff from the site."

Water Resources - Water Supply Policy, Develop Additional Water Resources: "The County shall encourage, support and, as warranted, require the identification and development of additional water sources through the expansion of water storage reservoirs, development of groundwater



banking for recharge and infiltration, and promotion of water conservation programs, and support of other projects and programs that intend to increase the water resources available to the County and reduce the individual demands of urban and agricultural users."

Water Resources - Adequate Water Availability: "The County shall review new development proposals to ensure the intensity and timing of growth will be consistent with the availability of adequate water supplies. Projects must submit a Will-Serve letter as part of the application process and provide evidence of adequate and sustainable water availability prior to approval of the tentative map or other urban development entitlement."

Water Resources - Water Resource Planning: "The County shall continue participation in State, regional, and local water resource planning efforts affecting water resource supply and quality."

Water Resources - Establish Critical Water Supply Areas: "The County shall designate Critical Water Supply Areas to include the specific areas used by a municipality or community for its water supply system, areas critical to groundwater recharge, and other areas possessing a vital role in the management of the water resources in the County, including those areas with degraded groundwater quality."

The project is not expected to conflict with any of the County's water resource management elements. However, water conservation and recycling should be incorporated into the project design where feasible. In particular, as we understand, the truck wash is expected to use approximately 5,000 gpd, while the remainder of the project will use 4,000 gpd (i.e., 9,000 gpd total). We understand that recycling will be incorporated into the project design to conserve water.

According to Thomas Harder & Co, Groundwater Consulting[1], "in general, five aquifer/aquitard units comprise the Tule Subbasin: 1. Upper Aquifer; 2. The Corcoran Clay Confining Unit and Other Confining Units; 3. Lower Aquifer; 4. Pliocene Marine Deposits (generally considered an aquitard); and 5. Santa Margarita and Olcese Formations of the Southeastern Subbasin. In general, groundwater in the Tule Subbasin flows from areas of natural recharge along major streams at the base of the Sierra Nevada Mountains on the eastern boundary towards a groundwater pumping depression in the west-central portion of the Subbasin. Recharge from the Tule River results in a groundwater flow divide in the upper aquifer along the northern boundary of the Tule Subbasin. As such, upper aquifer groundwater on the north side of the river flows to the north and out of the Subbasin. In the lower aquifer, groundwater flows to the southwest toward a pumping depression in the western portion of the Subbasin."
"Comparisons of hydrographs for wells perforated in the upper aquifer with nearby wells perforated predominantly in the lower aquifer show that groundwater levels in the upper aquifer are higher than groundwater levels in the lower aquifer. This indicates a downward hydraulic gradient and indicates that the upper aquifer is recharging the lower aquifer of the Tule Subbasin."

Although not well-defined in the project vicinity, the upper stratum of the E-Clay is projected to occur at an elevation of approximately sea level, or approximately 265 feet bgs at the Subject Site.

[1] Thomas Harder & Co., 2020. Groundwater Flow Model of the Tule Subbasin, Prepared for Tule Subbasin MOU Group. January.

The eastern boundary of the E-Clay is projected to be approximately two miles east of the Site[2]. A review of a nearby well log (Well Completion Report WCR2021-008336) for an agricultural well completed approximately 1,000 feet west of the Site, indicates that soil types beneath the Site are mostly clay below a depth of 70 feet bgs with sparse intervals of sand and gravel down to the completed depth of 1,240 feet. The referenced well was constructed with screened intervals of 500 to 540 feet, 560 to 640 feet, and 800 to 1,240 feet bgs.

The California Department of Water Resources (DWR) SMA Data Viewer depicts the groundwater elevation beneath the Site at approximately 30 feet above mean sea level (amsl) (Spring 2023) and groundwater-flow direction beneath the Site to the south-southwest towards a pumping depression near the intersection of Road 104 and Avenue 96, approximately 2.6 miles west of Pixley and Highway 99. The same database shows the depth to water at approximately 235 to 240 feet bgs.[3]

The Tulare County GP maps the subject Site as land designated for Urban Development. It is not located in a FEMA Flood Zone and the soil permeability is considered low. The Site is topographically flat and there are no surface-water bodies within one-half mile of the property, except for industrial ponds located to the west of Highway 99 (opposite side of the highway) and a small (approximately ¼-acre) stormwater or irrigation-collection basin located adjacent to the Site on the northeast corner of the intersection of Avenue 20 and Road 124.

The project is expected to either obtain water supply from an existing Public Water Supply system (PWS) or create a new system, using a groundwater well designed for that purpose. A preliminary water-consumption budget for the project estimates that it will require up to 9,000 gallons per day (gpd) of water or 10 acre-feet per year. Pumping fulltime, a well would be required to produce approximately 6.25 gallons per minute (gpm). Although a detailed hydraulic analysis, including the potential impact of nearby public water systems on the proposed PWS and vice versa, has not been performed in the completion of this questionnaire, it is reasonable to expect that a groundwater well could supply the proposed PWS. If a new PWS is pursued, the State will require that it be demonstrated that the PWS and the aquifer have the capability to sustain a water supply and that potential water quality impacts are mitigated.

The Tulare County GP maps the subject Site as land designated for Urban Development. It is not located in a FEMA Flood Zone and the soil permeability is considered slow. The Site is topographically flat and there are no surface-water bodies within one-half mile of the property, except for industrial ponds located to the west of Highway 99 (opposite side of the highway) and a small (approximately ¼-acre) stormwater or irrigation-collection basin located adjacent to the Site on the northeast corner of the intersection of Avenue 20 and Road 124. Stormwater runoff generated onsite is expected to be contained in stormwater-management basins on site.

The project is expected to generate wastewater from convenience-store operations, restrooms, and truck wash. The project will require adequate private sewage treatment and/or disposal systems.

---

[2] Croft, M. G., 1972. Subsurface Geology of the Late Tertiary and Quaternary Water-Bearing Deposits of the Southern Part of the San Joaquin Valley, Geological Survey Water-Supply Paper 1999-H.
[3]California Department of Water Resources, SGMA Data Viewer 2024. https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer#gwlevels.

Tulare County regulates appropriate rural wastewater systems that are located outside of community disposal areas. System design will be reviewed by and approved by Tulare County. Where community sewer systems are not available, the County General Plan states that it will evaluate soil data to regulate and monitor installation of septic systems to assure public health and safety. With properly designed and constructed waste-management systems, permitted by the County, no violations of water quality standards are anticipated. Based on the currently estimated project water demand and resulting wastewater discharge, a Waste Discharge Permit issued by the Regional Water Quality Control Board (RWQCB) may be required. The applicant should coordinate with the RWQCB to determine the applicability of such a permit.

6.0 MINERAL RESOURCES

Would the project:	SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LASS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

- No Significant Impacts Identified.
- The Site is not located in or near a mapped mineral resource zone, nor any oil & gas field. Surrounding development would likely preclude mineral development, even if it did exist on or near the Site. (i.e., No Impacts).

Enacted by the State Legislature in 1975, the Surface Mining and Reclamation Act (SMARA), Public Resources Code Section 2710 et seq., ensures a continuing supply of mineral resources for the State. The act also creates surface mining and reclamation policy to assure that:

- Production and conservation of minerals is encouraged;
- Environmental effects are prevented or minimized;
- Consideration is given to recreational activities, watersheds, wildlife, range and forage, and aesthetic enjoyment;
- Mined lands are reclaimed to a useable condition once mining is completed; and
- Hazards to public safety both now and in the future are eliminated.

Areas in the State that do not have their own regulations for mining and reclamation activities rely on the Department of Conservation, Division of Mines and Geology, Office of Mine Reclamation to

enforce this law. SMARA contains provisions for the inventory of mineral lands in the State of California. The State Geologist, in accordance with the State Board's Guidelines for Classification and Designation of Mineral Lands, must classify Mineral Resource Zones (MRZ) as designated below:

- MRZ-1. Areas where available geologic information indicates that there is minimal likelihood of significant resources.
- MRZ-2. Areas underlain by mineral deposits where geologic data indicate that significant mineral deposits are located or likely to be located.
- MRZ-3. Areas where mineral deposits are found but the significance of the deposits cannot be evaluated without further exploration.
- MRZ-4. Areas where there is not enough information to assess the zone. These are areas that have unknown mineral resource significance. SMARA only covers mining activities that impact or disturb the surface of the land. Deep mining (tunnel) or petroleum and gas production is not covered by SMARA.

The Tulare County General Plan 2030 Update: Chapter 8 – Environmental Resources Management contains the following policy that relates to mineral resources, and which have potential relevance to the Project's CEQA review:

- *ERM-2.1 Conserve Mineral Deposits* wherein the County will encourage the conservation of identified and/or potential mineral deposits, recognizing the need for identifying, permitting, and maintaining a 50-year supply of locally available PCC grade aggregate.

Mineral resources located within Tulare County are predominately sand and gravel resources primarily located in the fluvial deposits of four major drainages: the Kaweah River, Lewis Creek, Deer Creek, and the Tule River. Deer Creek is the nearest of these four streams to the Project site. Mapped as MRZ-3, the westernmost reaches of the mapped zone encompassing Deer Creek are approximately 11 miles east of the project Site. The project is not located in a designated Mineral Resource Zone.

Further, a review of well logs in the project vicinity does not indicate the presence of economically viable minerals.

A review of the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources, California Oil & Gas Fields, Volume 1 – Central California (CD-1) indicates that the closest oil and gas fields to the project Site occur approximately 15 miles northeast of the Site (i.e., the Deer Creek Oil Fields, the North Deer Creek Oil Field, and the abandoned Terra Bella Oil Field). The project is not expected to interfere with oil and gas development.

Even if mineral resources existed beneath or on the subject Site, the subdivided land and relatively small parcels that characterize the project vicinity, along with the project's proximity to the Highway 99 and Avenue 120 interchange, would pose logistical and permitting issues if mineral-resource development were proposed on or near the project property.

The Project is not expected to have an impact on mineral resources.



7.0 UTILITIES AND SERVICE SYSTEMS

Would the project:	SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LASS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☒	☐	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

- No Significant Impacts Identified.
- The project will not require public water and wastewater utilities, and stormwater will be managed on-site (No Impact). Mitigation to reduce potential impacts of on-site wastewater disposal (i.e., septic) and groundwater withdrawal will include incorporation design criteria contained in local, State, and Federal Codes/Regulations related to appropriate and mandated wastewater-disposal-system design criteria and on-site stormwater-collection ponds and best-management practices. The water supply to the project will require separate evaluation and permitting as a Public Water System (PWS), subject to authorization by State and local authorities, including provisions of the local Groundwater Management Plan.
- Electricity and gas will be provided by the local utility and project design will be constrained by existing service capacity. No expansion of generation or delivery capacity is proposed.
- The project will not generate new and/or significant solid waste and/or garbage.

For the purposes of this assessment, Utility and Service Systems are assumed to mean potential impacts to public water, sewer, storm drainage, solid waste, wastewater, electricity and natural gas, fire protection, telecommunications, law enforcement, parkland, and schools and libraries. Circulation framework should be addressed separately in a traffic module.

The project is not located within a mile of a parkland, school or library and will not impact operations, capacity, and/or utilization of those systems.

Water supply, sewer and wastewater, and storm drainage are components of the project design and will not depend on a public provider. Potential impacts to these public utilities are considered to be insignificant or present no impact.

Potable and fire-suppression water is expected to be supplied by a water well, which will require permitting as a Public Water System (PWS). The project proposes to use approximately 10,000 gallons of potable water each day. Although a detailed hydraulic analysis, including the potential impact of nearby public water systems on the proposed PWS and vice versa, has not been performed in the completion of this questionnaire, it is reasonable to expect that a groundwater well could supply the proposed PWS. In the permitting of a new PWS, groundwater quality, sustainability and potential impacts to the aquifer, and assessment of potential risks to the PWS will be evaluated.

In unincorporated areas, the County sets rates for licensed haulers to charge for regular collection of municipal solid waste. The County does not provide trash collection service; instead, it is performed by private haulers licensed by the County. Although an estimate of solid waste generation has not been performed, it is anticipated that the facility will not generate substantial "new" waste within the County. If the project applicant determines that expected waste generation may be significant, it will provide evidence that there is adequate capacity within the solid waste system for the processing, recycling, transmission, and disposal of solid waste prior to completing its development permit.

State Water Resources Control Board Onsite Wastewater Treatment Systems (OWTS) Policy

The purpose of the OWTS Policy is to allow the continued use of on-site wastewater treatment systems, while protecting water quality and public health. This Policy recognizes that responsible local agencies can provide the most effective means to manage OWTS on a routine basis. To receive coverage under this Policy and the included waiver of waste discharges, OWTS shall only accept and treat flows of domestic wastewater. In addition, OWTS that accept high-strength wastewater from commercial food service buildings are covered under this Policy and the waiver of waste discharge requirements if the wastewater does not exceed 900 mg/L BOD and there is a properly sized and functioning oil/grease interceptor (a.k.a. grease trap). Waste discharge from a truck wash would likely be considered industrial or commercial, as opposed to domestic.

Section 2.6 of the Policy states that the following owners of OWTS shall notify the Regional Water Board by submitting a Report of Waste Discharge for the following:

- a new or replacement OWTS that does not meet the conditions and requirements set forth in either a Local Agency Management Program if one is approved, an existing local program if it is less than 60 months from the effective date of the Policy and a Local Agency Management Program is not yet approved, or Tier 1 if no Local Agency Management Program has been approved and it is more than 60 months after the effective date of this Policy;
- any OWTS, not under individual waste discharge requirements or a waiver of individual waste discharge requirements issued by a Regional Water Board, with the projected flow of over 10,000 gallons-per-day;
- any OWTS that receives high-strength wastewater, unless the waste stream is from a commercial food service building;
- any OWTS that receives high-strength wastewater from a commercial food service building: (1) with a BOD higher than 900 mg/L, or (2) that does not have a properly sized and functioning oil/grease interceptor.

The type and volume of wastewater generated by this project is estimated to be approximately 9,000 gpd. However, if the 10,000 gpd discharge threshold is exceeded, the aforementioned OWTS policy may apply.

The project will include 18 EV charging stations. The applicant should coordinate with the local electricity utility to evaluate the electric systems' (generation and transmission) ability to serve the project needs. Upgraded systems may be required but the environmental impact of any system upgrades is anticipated to be insignificant.

8.0 LIMITATIONS

WEC has prepared this report for the exclusive use of Hi-Tech for the specific project described herein. WEC's services have been conducted and reported in accordance with generally accepted engineering practices in California at the time they were prepared. No other warranty, either express or implied, is made.



ATTACHMENT E

Geotechnical Report for Proposed Travel Stop in Pixley by RMA GeoScience

DRAFT

RMA GeoScience
Every Project Matters | www.rmacompanies.com

September 6, 2024 Project No. 07-240536-0

Ms. Skye Salwasser
Hi-Tech Developing, Inc.
3506 West Neilsen Avenue
Fresno, CA 93706

Subject: Geotechnical Investigation Report
Proposed Travel Stop
Northwest Corner of Road 124 & Avenue 120
Eastern half of APNs 300-010-005 & 300-010-015
Pixley, CA 93256

Dear Ms. Salwasser:

In accordance with your request, we have performed a geotechnical investigation for the subject project. This work was performed in accordance with Section 1803 of the 2022 California Building Code. The results of our geotechnical investigation are presented in the accompanying report, which includes a description of site conditions and potential geologic hazards, results of our field exploration and laboratory testing, conclusions, and recommendations.

We appreciate this opportunity to be of service to you. If you have any questions regarding this report, please do not hesitate to contact us at your convenience.

Respectfully submitted,

RMA GeoScience

Megan J. Stewart, GIT
Staff Geologist

Gabriel J. Valov, GIT
Staff Geologist

Josue Montes, PE|GE
Principal Geotechnical Engineer
GE 2904



Distribution: Addressee (1 Original and a pdf copy to *skye@hitechdeveloping.com*)

RMA GeoScience
Every Project Matters | www.rmacompanies.com

GEOTECHNICAL INVESTIGATION REPORT
PROPOSED TRAVEL STOP
NORTHWEST CORNER OF ROAD 124 & AVENUE 120
EASTERN HALF OF APNS 300-010-005 & 300-010-015
PIXLEY, CALIFORNIA 93256

for

Hi-Tech Developing, Inc.
3506 West Neilsen Avenue
Fresno, California 93706

September 6, 2024

Project No. 07-240536-0

RMA GeoScience
Every Project Matters | www.rmacompanies.com

Table of Contents

1.00 Introduction 1
- 1.01 Project Description 1
- 1.02 Site Location and Description 1
- 1.03 Purpose 3
- 1.04 Scope of the Investigation 3
- 1.05 Investigation Methods and Limitation 4

2.00 Findings 4
- 2.01 Geologic Setting 4
- 2.02 Faults 6
- 2.03 Flooding Potential 6
- 2.04 Earth Materials 6
- 2.05 Expansive Soil 7
- 2.06 Surface and Groundwater Conditions 7
- 2.07 Percolation Test Results 7

3.00 Conclusions and Recommendations 8
- 3.01 General Conclusions 8
- 3.02 Seismic Design Parameters 8
- 3.03 Liquefaction and Secondary Earthquake Hazards 9
- 3.04 Earthwork Recommendations 11
- 3.05 Rippability and Rock Disposal 12
- 3.06 Earthwork Shrinkage 12
- 3.07 Imported Fill Material 13
- 3.08 Temporary Slopes and Shoring 13
- 3.09 Utility Trench Backfill 14
- 3.10 Lateral Load Resistance and Earth Pressures 15
- 3.11 Foundations 15
- 3.12 Pole Type Foundations 15
- 3.13 Interior Slabs on Grade 16
- 3.14 Miscellaneous Concrete Flatwork 17
- 3.15 Footing Excavations and Concrete Subgrade 18
- 3.16 Drainage and Moisture Proofing 18
- 3.17 Cement Type and Corrosion Potential 19
- 3.18 Pavement Sections 19
- 3.19 Plan Review 20
- 3.20 Geotechnical Observation and Testing During and After Grading 20

4.0 Closure 21

FIGURES

- Figure 1 Site Location Map
- Figure 2 Field Exploration Map

APPENDICES

- Appendix A Field Investigation
- Appendix B Laboratory Tests
- Appendix C References

1.00 Introduction

1.01 Project Description

Based on our review of the provided, which included a site plan prepared by Alan Mok Engineering (dated January 10, 2024), we understand that the project will consist of developing portions of two parcels, consisting of approximately 20-acres. The development will contain a travel stop consisting of: a 20,000 square-foot convenience store, a 17,000 square-foot truck wash and service building, a vehicle fueling island with 18 pumps, a RV fueling island with two pumps, a diesel fueling island with 11 pumps, and an above ground diesel tank pad. It is anticipated that the structures will be wood or light-framed, have concrete slab-on-grade floors, and have shallow reinforced-concrete foundations. Maximum wall and column loads (dead plus live, not including wind or seismic loads) are anticipated to be less than 2.0 kips per foot and 50 kips, respectively, based on previous projects. Appurtenant improvements are anticipated to be various underground utilities, new concrete flatwork, new asphalt driveways and parking areas, a truck scale, three drainage basins, a kid play area, a dog play area, and landscaping. Based on the Grading Plan, pad areas will have grade elevations of and topographic contours in the pad areas have elevations as follows:

Building/Structure	Pad Grade Elevation (ft)	Topographic Contours in Pad Area (ft)
Convenience Store	270	268.9
Truck Wash & Service	271	267.9
Vehicle Fuel Island & Pad	270	267
RV Fuel Island	270	267.5
Above Ground Tanks	270	267.2
Diesel Fuel Island	270	266.8

1.02 Site Location and Description

The project site consists of the eastern half of two vacant parcels, located north of Avenue 120 (Hesse Avenue) and west of Road 124, immediately east of an abandoned cotton gin facility, in Pixley, CA, as indicated on Figure 1, Site Vicinity Map. Its approximate geographic position is 36.0091° north latitude and 119.2966° west longitude. Google Earth imagery indicates the site was utilized by the facility from at least 1994 and until sometime in 2005, when operations appeared to have ceased on site. After 2005, the site remained largely vacant. At the time of our field investigation on August 13 and 14, 2024, the site was vacant, contained moderate growth of seasonal weeds and grasses, and was surrounded by a fence (see photos below). The general site topography was relatively flat and, according to the Topographic Plan, the elevation above mean sea level at the project site is approximately 266 to 269 feet.



Photo taken from the northeast corner of the project site, facing southwest. Taken on August 14, 2024.



Photo taken from the southeast corner of the project site, facing northwest. Taken on August 14, 2024.



Photo taken from the southwest corner of the project site, facing northeast. Taken on August 14, 2024.

1.03 Purpose

A geotechnical investigation has been completed for the Proposed Travel Stop project located at the eastern half of APNs 300-010-005 & 300-010-015 in Pixley, California. The purpose of the investigation was to summarize geotechnical and geologic conditions at the site, to assess their potential impact on the proposed development, and to develop geotechnical engineering design parameters.

1.04 Scope of the Investigation

The general scope of this investigation included the following:

- Review of published and unpublished geologic, seismic, groundwater and geotechnical literature.
- Examination of aerial photographs and topographic maps.
- Contacting of Underground Service Alert to locate onsite utility lines.
- Logging, sampling, and backfilling of nine exploratory borings drilled with a SIMCO 2800 drill rig.
- Laboratory testing of representative soil samples.
- Geotechnical evaluation of the compiled data.
- Preparation of this report presenting our findings, conclusions and preliminary recommendations.

Our scope of work did not include a preliminary site assessment for the potential of hazardous materials onsite.

1.05 Investigation Methods and Limitation

Our investigation consisted of office research, field exploration, laboratory testing, review of the compiled data, and preparation of this report. It has been performed in a manner consistent with generally accepted engineering and geologic principles and practices and has incorporated applicable requirements of the California Building Code. Definitions of technical terms and symbols used in this report include those of the ASTM International, the California Building Code, and commonly used geologic nomenclature.

Technical supporting data are presented in the attached appendices. Appendix A presents a description of the methods and equipment used in performing the field exploration, as well as logs of our subsurface exploration. Appendix B presents a description of our laboratory testing and the test results. Finally, references are presented in Appendix C.

2.00 Findings

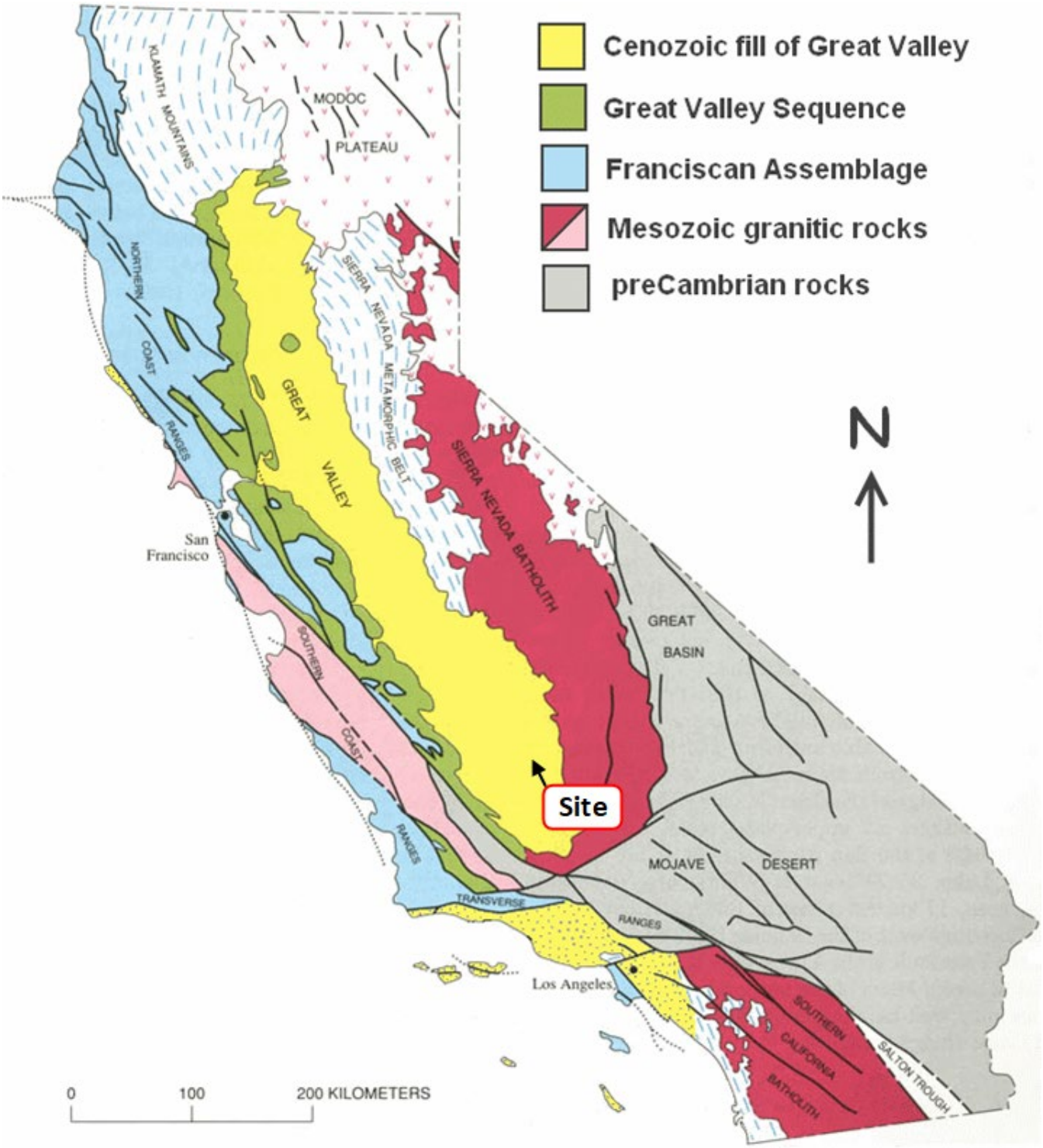
2.01 Geologic Setting

The subject site is located in the southern San Joaquin Valley, which comprises the southern half of the Great Valley geomorphic province. The valley is a westward-titling trough which forms a broad alluvial fan, approximately 200 miles long and 50 to 70 miles wide, were the eastern flank is broad and gently inclined, as opposed to the western flank which is relatively narrow (Bartow, 1991; Page, 1968). The Central Valley consists of the Great Valley Sequence, overlain by Cenozoic alluvium. Underlying the Great Valley Sequence are the Franciscan Assemblage to the west and the Sierra Nevada batholith to the east (Bailey, Irwin, and Jones, 1964).
The Franciscan Assemblage, made up of deformed and high pressure and low temperature metamorphosed mafic and ultramafic rocks, was formed around the Late Jurassic through the Miocene (160 to about 20 million years ago) by the offscraping of rocks from a subducting plate dipping to the east (Wakabayashi, 1992; Wakabayashi, 2010).

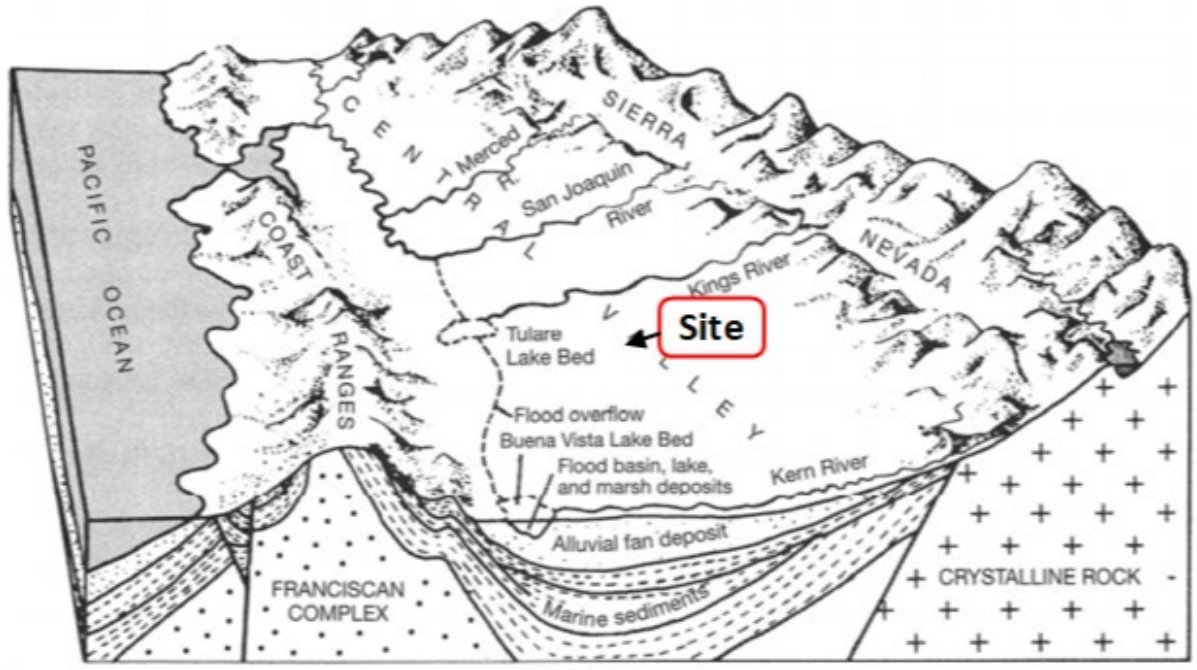
The Sierra Nevada started to form during the Early Jurassic (around 200 million years ago) when the Farallon Plate began subducting under the North American Plate. This subduction resulted in several orogenies, or mountain building events, that created the granitic Sierra Nevada Batholith deep below the surface. During the Miocene (around 10 million years ago), vertical movement along the Sierra Nevada Frontal Fault Zone (part of the Eastern California Shear Zone) began to uplift the Sierra Nevada. This uplift and erosion exposed the batholiths to the surface. From the Pleistocene (commonly known as the last Ice Age) to the present, glaciers have been carving out many parts of the Sierras. The current uplift of the Sierra Nevada is 1 to 2mm per year (Hammond, et al. 2012).

The Great Valley Sequence is a 40,000-foot sequence of marine shale, sandstone, and conglomerate beds, deposited in a deep marine environment during the Late Jurassic through the Cretaceous (150 to 65 million years ago). Overlying the Great Valley Sequence is several thousand feet of Cenozoic alluvium, deposited by: streams and rivers draining from the mountains and creating alluvial fans; by lakes that covered parts of the valley floor from time to time; flooding; and marsh environments (Page, 1986). In some places, it is thousands of feet thick, and more than half of this thickness is composed of fine grained fluvial and lacustrine deposits. Holocene deposition consists mainly of episodic deposition of alluvial sediments (Bartow, 1991; Page, 1986). The

project site is situated on Quaternary fan deposits that are several hundred feet deep.



Geologic map showing the locations of Cenozoic alluvium/fill (yellow) overlying the Great Valley Sequence (green), the Franciscan Assemblage (blue), and the Sierra Nevada Batholith (red). Modified from: Irwin (1990).



Geologic block diagram of California. From: Harden (2004). Not to scale.

2.02 Faults

The site is not located within the boundaries of an Earthquake Fault Zone for fault-rupture hazard as defined by the Alquist-Priolo Earthquake Fault Zoning Act and no faults are known to pass through the property. The nearest active earthquake fault zone (evidence of displacement within the past 11,700 years) are the Pond Fault, the New Hope Fault, the Kern Front Fault, the Kern Canyon Fault Zone, and the San Andreas Fault Zone located approximately 20.1 miles south, 31.7 miles south-southeast, 38.1 miles south-southeast, 46.9 miles east, and 54.9 miles southwest, respectively, of the project site.

Our research of regional geologic and seismic data did not reveal any known instances of ground failure in the vicinity of the site associated with regional seismic activity. Seismic design parameters relative to the requirements of the 2022 California Building Code are presented in Section 3.02.

2.03 Flooding Potential

According to Federal Emergency Management Agency Flood Insurance Rate Map Panel #06107C1600E (effective on June 16, 2009), the site is located within an unshaded area of Flood Zone X, which is an "area outside of 0.2% annual chance floodplain."

Control of surface runoff originating from within and outside of the site should be included in design of the project in accordance with the 2022 CBC.

2.04 Earth Materials

The subsurface exploration performed for this project indicated the native soil profile consisted primarily of silty sand with varying amounts of clay and cementation, sandy silt with varying amounts of clay and cementation,

and sandy clay to clayey sand with extending from the existing surface to the maximum depth explored of approximately 21 feet below the existing ground surface. The granular soils had a relative density of loose to very dense, while the fine-grained soils had a relative consistency of stiff to hard. As indicated above, the soils encountered in the test borings are related to alluvial deposits that have been deposited in the central San Joaquin Valley over the past several thousand years.

The approximate locations of the test borings are presented on Figure 2. Logs of our exploratory test borings are presented in Appendix A, which provide more detailed information of the soils that were encountered to the maximum depths explored (approximately 21 feet) at the project site.

2.05 Expansive Soil

Our field exploration indicates that the near surface soils at the project site have a very low expansion potential (Expansion Index, EI, of 15 and Plasticity Index, PI, of 7). Results of our laboratory tests are presented in Appendix B.

2.06 Surface and Groundwater Conditions

No areas of ponding or standing water were present at the time of our study. Further, no springs or areas of natural seepage were observed at the project site. In addition, no groundwater was encountered in the test borings within the maximum depth explored of approximately 21 feet.

According to the Groundwater Information Center Interactive Map Application for Fall 2023, the depth of groundwater in the vicinity of the project site was 182 feet. Historical data derived from wells (State Well IDs or Local Well Names 22S25E19A003M, 22S25E30, 22S25E08N001M, and 22S25E21H001M) located 0.44 miles west-southwest, 0.76 miles south, 1.00 miles north-northwest, and 1.62 miles east-southeast of the project site, respectively, indicates the depth to ground water in the vicinity of the project site was at a depth of approximately 99 feet deep in the mid-1980's, declined to a depth of 123 feet deep in the late 1990's, declined further to a depth of 143 feet deep by the late 2000's, and continued to decline to a depth of 173 feet deep by the late 2010's. Over the subsequent years, the data indicates that the groundwater elevation in the vicinity of the project site has declined slightly further by approximately 7 feet.

2.07 Percolation Test Results

Percolation test holes were excavated with a 4-inch diameter solid stem auger on a SIMCO 2800 drill rig in the areas designated (see Figure 2 for approximate test location). After the holes were excavated, four inches of pea gravel was placed in the holes, perforated 3-inch diameter PVC pipe was placed in the holes, pea gravel was placed around the PVC pipe, and then filled with water. A five-gallon water bottle was positioned over the percolation holes and allowed to sit overnight in order to saturate the surrounding soils. Percolation tests were conducted the following morning and the results are summarized below.

Percolation Test Results			
Test No.	P-1	P-2	P-3
Depth* (feet)	5.33	5.33	5.33
Percolation Rate (min/inch)	26.71	40.06	20.03
Gravel Adjustment Factor	1.4		
Percolation Rate adjusted for Gravel Pack (min/inch)	37.39	56.09	28.04
Infiltration Rate (in/hr) (Calculated per the Porchet Method)	0.16	0.09	0.26

***Note**: Depth to bottom of percolation hole.

Based on the results of these tests, a design infiltration rate of 0.17 inches/hour is recommended for the proposed onsite soils.

3.00 Conclusions and Recommendations

3.01 General Conclusions

Based on specific data and information contained in this report, our understanding of the project, and our geotechnical engineering experience, it is our professional judgment that the proposed development is geologically and geotechnically feasible. Our review of geological literature and the field exploration performed for this project did not indicate any unusual conditions at the site that would entail special design considerations or construction procedures. Our field exploration and laboratory testing program indicate the relative densities of the near-surface soils are generally low. Therefore, it will be important to perform some over-excavation, moisture conditioning, and re-compaction in the areas where building and other surface improvements are planned. Specific geotechnical recommendations are presented below to address these soil conditions and provide information for other members of the design team to prepare the project plans and specifications for the planned residence.

3.02 Seismic Design Parameters

Seismic design parameters have been developed in accordance with Section 1613 of the 2022 California Building Code (CBC) using the online SEAOC and OSHPD Seismic Design Maps Calculator (ASCE 7-16 Standard), site class based on our geotechnical investigation, and a site location based on latitude and longitude. The parameters generated for the subject site are presented below:

2022 California Building Code (CBC) Seismic Parameters

Parameter	Value
Site Location (GPS Coordinates)	Latitude = 36.0091 degrees Longitude = -119.2966 degrees
Risk Category	II
Site Class	Site Class = D Soil Profile Name = "Default"
Mapped Spectral Accelerations	S_s (0.2-second period) = 0.649g S_1 (1-second period) = 0.247g
Site Coefficients (Site Class D)	F_a = 1.281 F_V = Null - Section 11.4.8
Maximum Considered Earthquake Spectral Accelerations (Site Class D)	S_{MS} (0.2-second period) = 0.831g S_{M1} (1-second period) = Null - Section 11.4.8
Design Earthquake Spectral Accelerations (Site Class D)	S_{DS} (0.2-second period) = 0.554g S_{D1} (1-second period) = Null - Section 11.4.8

As the Site Class is D and the S_1 value is greater than 0.2g, then per ASCE 7-16 Section 11.4.8, a site-specific ground motions procedure is required with several exceptions. We assume that Exception 2 is applicable to this site, and hence the seismic parameters indicated in the table above have been calculated. If exception 2 does not apply, the structural engineer should contact RMA so the site-specific seismic parameters can be developed.

The above table shows that the mapped spectral response acceleration parameter for a 1-second period (S_1) is less than 0.75g. Therefore, the Seismic Design Category using 2022 CBC Tables 1613.2.5(1) and 1613.2.5(2) is D for all Occupancy Categories (2022 CBC Section 1613.2.5). Consequently, as required for Seismic Design Categories C through F by CBC Section 1803.5.12, slope instability, liquefaction, total and differential settlement, and surface displacement by faulting or seismically lateral spreading or lateral flow have been evaluated.

Peak earthquake ground acceleration adjusted for site class effects (PGA_M) has been calculated in accordance with ASCE 7-16 Section 11.8.3 as follows: $PGA_M = F_{PGA} \times PGA = 1.316 \times 0.284 = 0.374g$.

3.03 Liquefaction and Secondary Earthquake Hazards

Potential secondary seismic hazards that can affect land development projects include liquefaction, tsunamis, seiches, and seismically induced settlement.

Liquefaction

Liquefaction is a phenomenon where earthquake-induced ground vibrations increase the pore pressure in saturated, granular soils until it is equal to the confining, overburden pressure. When this occurs, the soil can completely lose its shear strength and enter a liquefied state. The possibility of liquefaction is dependent upon grain size, relative density, confining pressure, saturation of the soils, and intensity and duration of ground shaking. In order for liquefaction to occur, three criteria must be met: "low density", coarse-grained (sandy)

soils, a groundwater depth of less than about 50 feet, and a potential for seismic shaking from nearby large-magnitude earthquake. Since the depth to groundwater at the project site is significantly deeper than 100 feet, in our opinion there is a negligible risk of liquefaction occurring at the project site during a design level seismic event.

It should be noted that the California Geological Survey has not yet prepared a Seismic Hazard Zone Map of potential liquefaction hazards for the quadrangle in which the site is located. In addition, there are no liquefaction hazard zones near the site according to the Tulare County General Plan. Because there are no mapped liquefaction hazard zones near the site, a map depicting such a zone relative to the site has not been prepared.

Tsunamis and Seiches

Tsunamis are sea waves that are generated in response to large-magnitude earthquakes. When these waves reach shorelines, they sometimes produce coastal flooding. Seiches are the oscillation of large bodies of standing water, such as lakes, that can occur in response to ground shaking. Tsunamis and seiches do not pose hazards due to the inland location of the site and lack of nearby bodies of standing water.

Seismically Induced Settlement

Seismically induced settlement occurs most frequently in areas underlain by loose, granular sediments. Damage as a result of seismically induced settlement is most dramatic when differential settlement occurs in areas with large variations in the thickness of underlying sediments. Settlement caused by ground shaking is often non-uniformly distributed, which can result in differential settlement. Taking into account the consistency of the soils in the upper 21 feet, a PGA_M of 0.374g, and the nearest active fault is approximately 20 miles from the project site, there is a relatively low risk of any significant seismic settlement occurring at the project site during a design level seismic event. For design purposes, it is estimated that the seismically induced settlement will be less than 1/4 inch during a design seismic event.

Seismically Induced Flooding

The Tulare County General Plan indicates the site is not located within a potential dam inundation area. Consequently, seismically induced flooding at the site is unlikely.

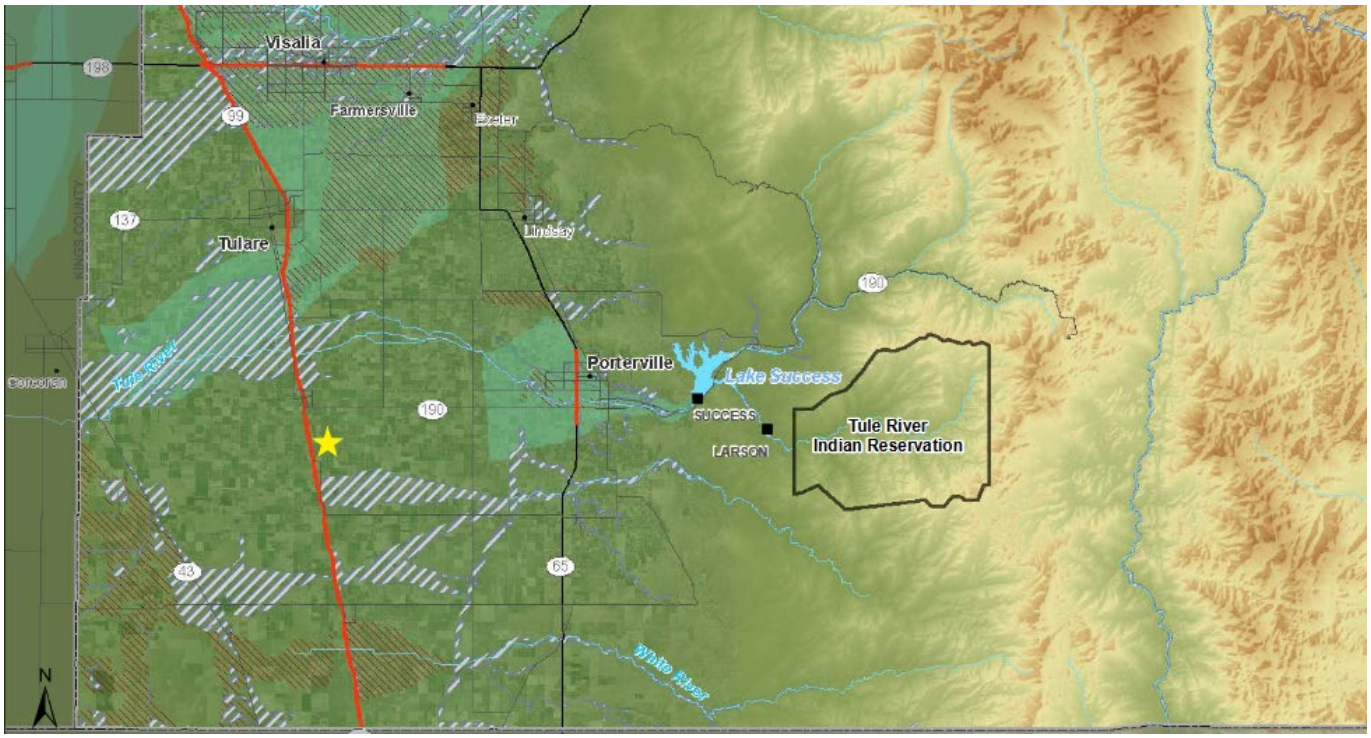


Figure 8-1 from the Tulare County General Plan Background Report indicating dam failure inundation areas (in light blue). The site is marked with a yellow star.

3.04 Earthwork Recommendations

All earthwork construction should be performed in accordance with Appendix J of the 2022 California Building Code and all applicable governmental agency requirements. In the event of conflicts between this report and Appendix J, this report shall govern. It should be noted that all references to maximum dry density, optimum moisture content, and relative compaction are based on ASTM D1557 laboratory test procedures.

All vegetation, organic rich soils (soils containing more than 2 percent organics by weight), trash, debris and any old underground utilities, should be cleared from the grading area and removed from the site. It is anticipated that the upper three to four inches of soil will need to be stripped in order to remove the organic rich materials from the building pad and paved areas of the site. Prior to performing the over-excavation recommended below, the stripped surface should be observed and approved by the Project Geotechnical Engineer. After the removal of deleterious materials and the stripping of organic-rich soils, the following over-excavation must be done within the area of the planned improvements:

- Based on assumed planned finished subgrade, within the area of the planned building improvements plus at least 5 feet horizontally beyond the perimeter of these improvements, the subgrade must be over-excavated and replaced as compacted fill at least 24 inches below the stripped subgrade surface or 12 inches below the bottom of footings, whichever is deeper. Over-excavation depth can change based on the final grading plan.
- Outside of the “building pad” areas indicated above, and within the area of planned asphalt or concrete flatwork, the subgrade must be moisture-conditioned and compacted at least 12 inches below the stripped subgrade surface.

Following the over-excavation indicated above, a designated representative for the Project Geotechnical Engineer must review the exposed ground surface prior to scarification and determine if any additional over-excavation is required.

The over-excavated ground surface in all areas determined to be satisfactory for the support of fills must be scarified to a minimum depth of 12 inches. Scarification should continue until the soils are broken down and free from lumps or clods and until the scarified zone is uniform. The moisture content of the scarified zone shall be adjusted to at least 2 percent over optimum moisture content. The scarified zone must then be uniformly compacted to at least 90 percent relative compaction except for the upper 12 inches of subgrade below asphalt or concrete pavement sections subject to vehicle traffic, which must be compacted to at least 95 percent.

Removed and/or over-excavated soils free of organics and other deleterious material may be used as engineered fill. Fill material should be placed in nearly horizontal layers, uniformly moisture conditioned to at least 2 percent over optimum moisture content, and then compacted in layers that do not exceed approximately 6 inches in thickness. Thicker lifts may be placed if testing indicates the compaction procedures are such that the required compaction is being achieved and the geotechnical consultant approves their use. Each layer shall be spread evenly and shall be thoroughly mixed during the spreading to insure uniformity of material in each layer. Engineered fill must be compacted to achieve a relative compaction of at least 90 percent, except for the upper 12 inches of subgrade below asphalt or concrete pavement sections subject to vehicular traffic, which must be compacted to at least 95 percent. A representative from RMA GeoScience must observe the placement of all fill material and perform tests to verify that the compaction of the fill material meets these requirements.

The above recommendations are based on the assumption that soils encountered during field exploration are representative of soils throughout the site. However, there can be unforeseen and unanticipated variations in soils between points of subsurface exploration. Hence, over-excavation depths must be verified, and adjusted if necessary, at the time of grading. In addition, any contaminated or expansive soils within three (3) feet of the finished subgrade surface, must be removed and properly disposed of outside the area of the planned improvements.

3.05 Rippability and Rock Disposal

Our exploratory borings were advanced without difficulty and no oversize materials were encountered in our subsurface investigation. Accordingly, we expect that all earth materials will be rippable with conventional grading equipment and oversized materials are not expected.

3.06 Earthwork Shrinkage

Shrinkage is the decrease in volume of soil upon removal and recompaction, or scarifying and recompacting, expressed as a percentage of the original in-place volume. Based on our observations of the existing field conditions and lab testing data, a shrinkage factor in the range of approximately 10 to 15 percent is considered applicable for this project.

The degree to which fill soils are compacted and variations in the insitu density of existing soils will influence earth volume changes. Consequently, some adjustments in grades near the completion of grading could be required to balance the earthwork.

3.07 Imported Fill Material

The onsite stockpile of soil and any imported fill materials that will be placed within building, pavement, or concrete flatwork areas must be non-hazardous and meet the following criteria:

Gradation			
Sieve Size		**Percent Passing**	
3-inch		100%	
3/4-inch		90% - 100%	
#4		65% - 100%	
#200		20% - 50%	
Maximum Expansion Index		**Maximum Plasticity Index**	
20		10	
R-Value (in pavement areas)			
50			
Maximum Organic Content			
< 2% by weight			
Corrosivity			
pH	Minimum Resistivity (ohm-cm)	Soluble Sulfates (mg/kg)	Soluble Chlorides (mg/kg)
6.0 to 8.5	> 5,000*	< 1,000	< 500

*unless other requirement established by the Design Engineer

3.08 Temporary Slopes and Shoring

Our geotechnical investigation indicates that excavations less than 5 feet in depth may generally be constructed with vertical sidewalls without shoring or shielding. Temporary excavations in existing alluvial soils that are deeper than 5 feet may be safely made at an inclination of 1:1 or flatter. If vertical sidewalls are required in excavations greater than 5 feet in depth, the use of cantilevered or braced shoring is recommended. The following geotechnical parameters can be used to design a shoring system:

Moist Unit Weight of Soils: 115 pcf
Angle of Internal Friction (ø): 25°
Cohesion: 400 psf

Unless vehicles, equipment, materials, etc., are kept a minimum distance equal to the height of the excavation

away from the edge of the excavation, a surcharge load equal to a uniform lateral pressure of 72 psf should be assumed to act on the shoring in addition to the earth pressure calculated using the above geotechnical parameters.

Vehicles, equipment, materials, etc. should be set back a minimum distance of 10 feet from the top edge of sloped or vertical excavations. Surface waters should be diverted away from temporary excavations and prevented from draining over the top of the excavation and down the slope face. During periods of heavy rain, the slope face should be protected with sandbags to prevent drainage over the edge of the slope, and a plastic liner placed on the slope face to prevent erosion of the slope face.

Periodic observations of the excavations should be made by the geotechnical consultant to verify that the soil conditions have not varied from those anticipated and to monitor the overall condition of the temporary excavations over time. If at any time during construction conditions are encountered which differ from those anticipated, the geotechnical consultant should be contacted and allowed to analyze the field conditions prior to commencing work within the excavation.

Cal/OSHA construction safety orders should be observed during all underground work.

3.09 Utility Trench Backfill

The onsite soils will not be suitable for use as pipe bedding for buried utilities. All pipes should be bedded in sand or other suitable material as specified by the Project Civil Engineer. We recommend the bedding material have a Sand Equivalent (SE) of at least 30 and have less than 8 percent, by weight, passing the #200 Sieve. The geotechnical consultant should review and approve proposed bedding materials prior to use. Bedding materials should be compacted to at least 90% relative compaction (ASTM D1557) by mechanical methods.

The on-site soils are expected to be suitable as trench backfill provided they are screened of organic matter and other deleterious material. Trench backfill must be compacted consistent with the recommendations given above for engineered fill (see Section 3.04). Trench backfill should be compacted using mechanical methods; no jetting of backfill should be allowed. A minimum trench width of 24 inches or 18 inches plus the diameter of the utility line, whichever is greater, should be provided to permit uniform compaction on both sides of utility line and allow for a technician to perform in-place density tests using a nuclear gauge. If narrower trenches are desired, a sand-cement slurry should be used to backfill the trenches to within 8 inches of the top of trench. The sand-cement slurry should contain at least 2 sacks of cement per yard of mix and have a 4- to 6-inch slump. In addition, slurry should be consolidated using a suitable vibratory or mechanical method.

All utility trench backfill within street right of ways, utility easements, under or adjacent to sidewalks, driveways, or building pads should be observed and tested by the geotechnical consultant to verify proper compaction. Trenches excavated adjacent to foundations should not extend within the footing influence zone defined as the area within a line projected at a 1:1 drawn from the bottom edge of the footing. Trenches crossing perpendicular to foundations should be excavated and backfilled prior to the construction of the foundations. The excavations should be backfilled in the presence of the geotechnical engineer and tested to verify adequate

compaction beneath the proposed footing. Where utility crossings are located within 12 inches of bottoms of footings, conduits should be wrapped with polystyrene foam or other suitable material with a minimum thickness of one inch. Conduits extending through footings shall be "sleeved" as determined by the Project Structural Engineer.

3.10 Lateral Load Resistance and Earth Pressures

Lateral loads may be resisted by soil friction and the passive resistance of the soil. The following parameters are recommended.

- Allowable Passive Earth Pressure = 350 psf (equivalent fluid weight, includes a factor of safety = 2.0)
- Allowable Coefficient of Friction (soil to footing) = 0.35 (includes a factor of safety = 1.5)
- Retaining structures should be designed to resist a lateral active earth pressure of 35 pcf (equivalent fluid weight) for a level, non-expansive granular backfill with drainage provided.

The active earth pressure provided above is only applicable if the retained earth is allowed to strain sufficiently to achieve the active state. The required minimum horizontal strain to achieve the active state is approximately 0.0025H. Retaining structures should be designed to resist an at-rest lateral earth pressure of 55 pcf (equivalent fluid weight) if this horizontal strain cannot be achieved.

3.11 Foundations

Isolated spread footings and/or continuous wall footings are recommended to support the proposed residential building. Building foundations should be embedded at least 12 inches below the lowest adjacent grade. The foundations must be constructed on firm native soils or engineered fill as recommended in Section 3.04 of this report. Continuous and isolated spread footings with a minimum width of 12 and 24 inches, respectively, may be designed using an allowable bearing capacity of 3,000 pounds per square foot (psf). This allowable bearing capacity represents an allowable net increase in soil pressure over existing soil pressure and may be increased by one-third for short-term wind or seismic loads. The maximum expected settlement of footings designed with the recommended allowable bearing capacity is expected to be less than ¾ inch with a maximum differential settlement of ½ inch between similarly sized and loaded footings or less than ½ inch over a distance of 40 feet for continuous footings. Since the near-surface soils have a very low expansion potential (Expansion Index of ≤ 20), the reinforcement of building foundations should be based on structural considerations. However, it is recommended that continuous footings be reinforced with at least two #4 rebars, one located near the top, and one located near the bottom, of the footing.

It will be very important for all footing excavations to be observed by the geotechnical engineer to verify that they have been excavated into the recommended bearing material. Where zones of relatively loose or disturbed soils are present at the bottom of foundation recommendations, these soils should be properly compacted to provide a uniform bearing surface that meets the approval of the geotechnical engineer (refer to Section 3.04).

3.12 Pole Type Foundations

It is anticipated that light poles, signs, or canopies may be supported on pole-type foundations, drilled piers, or

cast-in-drilled-hole (CIDH) piles. This type of foundation should be designed in accordance with Section 1807.3 of the 2022 CBC. However, it is recommended that an allowable lateral soil bearing pressure of 180 psf per foot of embedment be used to develop parameters S1 and S3 rather than one of the values given in Table 1806.2. This value includes a factor of safety of 2 and may be increased as indicated in Section 1806.3.4. In unpaved landscape areas, the upper 12 inches of soil should be ignored when calculating the minimum depth of embedment.

An allowable end bearing pressure of 3,000 psf (includes a factor of safety of 3.0) and an allowable average skin friction of 250 psf (includes a factor of safety of 2.0) may be used to support vertical loads applied to pier foundations that are embedded at least 5 feet. The end bearing should be ignored if the drilled pier excavation is not properly cleaned out prior to installing the reinforcing steel and placing concrete. The uplift capacity of drilled piers can be calculated using an allowable skin friction of 150 psf plus the weight of the pier. In unpaved landscape areas, the skin friction within the upper 12 inches of embedded length should be ignored. The total settlement of pier foundations designed in accordance with these recommendations should not exceed one-half inch.

Prior to placing reinforcing steel or concrete, loose or disturbed soils should be removed from drilled pier excavations. A representative of the Geotechnical Engineer should observe the drilling and clean-out associated with the construction of pier foundations in order to assess whether the actual bearing conditions are compatible with the conditions anticipated during the preparation of this report. The contractor should be prepared to take measures to prevent caving or significant sloughing of CIDH sidewalls (such as installing a temporary casing) that extend more than 2 feet deep. In any case, reinforcing steel and concrete should be installed in an expeditious manner after each drilled hole is cleaned out. The contractor must take responsibility for staging the installation of CIDH piles so that significant amounts of sloughing or caving do not occur prior to installing the reinforcing steel and concrete. The annular space around the pole must be backfilled using approved CLSM (controlled low strength material).

3.13 Interior Slabs on Grade

Concrete floors with a minimum thickness of 4 inches are recommended for interior slabs on grade. Existing on-site soils within 5 feet of the ground surface may be considered to have a very low expansion potential for design purposes (Expansion Index of ≤ 20). However, to reduce the potential for excessive cracks as a result of differential movement, consideration should be given to reinforcing concrete slab-on-grade floors with at least #3 bars spaced 24 inches on-center in both directions. Reinforcement consisting of welded or woven wire mesh should not be used, due to the difficulty of keeping it centered in the slab during the construction process. If heavy concentrated or moving loads are anticipated, slabs should be designed using a modulus of subgrade reaction (k) of 180 pci. The concrete mix, reinforcement of slabs, and the location of construction and control joints should be specified by the Design Engineer.

A moisture vapor retarder/barrier is recommended beneath all slabs-on-grade that will be covered by moisture-sensitive flooring materials such as vinyl, linoleum, wood, carpet, rubber, rubber-backed carpet, tile, impermeable floor coatings, adhesives, or where moisture-sensitive equipment, products, or environments will exist. We recommend that design and construction of the moisture vapor retarder/barrier conform to Section

1805 of the 2022 California Building Code and pertinent sections of American Concrete Institute (ACI) guidance documents 302.1R-04, 302.2R-06 and 360R-10.

The moisture vapor retarder/barrier should consist of a minimum 10 mils thick polyethylene with a maximum perm rating of 0.3 in accordance with ASTM E 1745. The vapor barrier should be placed directly on a smooth compacted subgrade surface consistent with the recommendations provided in Section 3.04 of this report. Seams in the moisture vapor retarder/barrier should be overlapped no less than 6 inches or in accordance with the manufacturer's recommendations. Joints and penetrations should be sealed with the manufacturer's recommended adhesives, pressure-sensitive tape, or both. The contractor must avoid damaging or puncturing the moisture vapor retarder/barrier and repair any punctures with additional polyethylene properly lapped and sealed.

The moisture vapor retarder/barrier may be placed directly beneath the floor slab with no intermediate granular fill layer. This method of construction will provide improved curing of the slab bottom and will eliminate potential problems caused by water being trapped in a granular fill layer. However, concrete slabs poured directly on a moisture vapor retarder/barrier can experience shrinkage cracking and curling due to differential rates of curing through the thickness of the slab. Therefore, for concrete placed directly on the moisture vapor retarder/barrier, we recommend a maximum water to cement ratio of 0.45 and the use of water-reducing admixtures to increase workability and decrease bleeding.

Alternatively, the slabs may be constructed over 2 inches of sand that is placed on the moisture vapor retarder/barrier in accordance with ACI 302.1R-04. Granular fill should consist of clean, fine-graded materials with 100% passing the No. 4 sieve, 10% to 30% passing the No. 100 sieve, and less than 5% passing the No. 200 sieve. The granular layer should be moist but not saturated and uniformly compacted by making at least one pass with a vibratory base compactor or some other mechanical method that is approved by the Project Geotechnical Engineer. The granular fill layer should not be left exposed to rain or other sources of water such as wet-grinding, power washing, pipe leaks or other processes, and should be damp but not saturated at the time of concrete placement. Granular fill layers that become saturated should be removed and replaced prior to concrete placement.

3.14 Miscellaneous Concrete Flatwork

Miscellaneous concrete flatwork and walkways may be designed with a minimum thickness of 4 inches. Large slabs should be reinforced with a minimum of #3 rebar spaced 24 inches on center in both directions placed at mid-height in the slab. Control joints should be constructed to create squares or rectangles with a maximum spacing of 12 feet. The Project Civil Engineer should provide design details and specifications for all exterior concrete flatwork including the concrete mix design, reinforcement, and the location of construction and control joints. We recommend walkways be separated from foundations with a thick expansion joint filler.

The subgrade soils beneath all miscellaneous concrete flatwork should be moisture conditioned and compacted as recommended in Section 3.04 of this report. The geotechnical engineer should monitor the moisture conditioning and compaction of the subgrade soils and perform testing to verify that the proper moisture

content and compaction has been obtained. Prior to the placement of concrete, the moisture content of the upper 6 inches of subgrade should be at least optimum.

3.15 Footing Excavations and Concrete Subgrade

All footing excavations and bottom excavations should be observed by the geotechnical consultant to verify that they have been excavated into the recommended bearing material. The foundation excavations should be observed prior to the placement of forms, reinforcement steel, or concrete. These excavations should be evenly trimmed and level. Prior to concrete placement, any loose or soft soils should be removed. Excavated soils should not be placed on slab or footing areas unless properly compacted.

Prior to the placement of the moisture barrier and sand, the subgrade soils underlying the slab should be observed by the geotechnical consultant to verify that all under-slab utility trenches have been properly backfilled and compacted, that no loose or soft soils are present, and that the slab subgrade has been properly moisture conditioned and compacted as recommended in Section 3.04 of this report.

Footings may experience an overall loss in bearing capacity or an increased potential to settle where located in close proximity to existing or future utility trenches. Furthermore, stresses imposed by the footings on the utility lines may cause cracking, collapse and/or a loss of serviceability. To reduce this risk, footings should extend below a 1:1 plane projected upward from the closest bottom of the trench.

The upper 6 inches of subgrade underlying slabs-on-grade and walkways should have a moisture content at least optimum (see Section 3.04) prior to the placement of concrete or moisture barriers. The geotechnical consultant should perform insitu moisture tests to verify that the appropriate moisture content has been achieved within 72 hours prior to the placement of concrete or moisture barriers.

3.16 Drainage and Moisture Proofing

Surface drainage should be directed away from the proposed improvements into suitable drainage devices (see Section 1804.4 of the 2022 CBC). Neither excess irrigation nor rainwater should be allowed to collect or pond against building foundations or within low-lying or level areas of the property within 10 feet of buildings. Surface waters should be diverted away from the tops of slopes and prevented from draining over the top of slopes and down the slope face.

Walls and portions thereof that retain soil and enclose interior spaces and floors below grade should be waterproofed and damp-proofed in accordance with Section 1805 of the 2022 CBC.

Retaining structures should be drained to prevent the accumulation of subsurface water behind the walls. Backdrains should be installed behind all retaining walls exceeding 3 feet in height. All backdrains should be outlet to suitable drainage devices. Retaining walls less than 3 feet in height should be provided with backdrains or weep holes. Damp-proofing and/or waterproofing should also be provided on all retaining walls exceeding 3 feet in height.

3.17 Cement Type and Corrosion Potential

Soluble sulfate tests performed on a shallow soil sample indicated a soluble sulfate content in the range of 221.0 to 265.0 mg/kg (0.0221 to 0.0265 percent by weight). Thus, below-grade concrete at the subject site should have a negligible exposure to water-soluble sulfate in the soil. Our recommendations for concrete exposed to sulfate-containing soils are presented in the table below.

Recommendations for Concrete Exposed to Sulfate Containing Soils

Sulfate Exposure	Water Soluble Sulfate (SO_4) in Soil (% by Weight)	Sulfate (SO_4) in Water (ppm)	Cement Type (ASTM C150)	Maximum Water-Cement Ratio (by Weight)	Minimum Compressive Strength (psi)
Negligible	0.00 - 0.10	0-150	--	--	2,500
Moderate	0.10 - 0.20	150-1,500	II	0.50	4,000
Severe	0.20 - 2.00	1,500-10,000	V	0.45	4,500
Very Severe	Over 2.00	Over 10,000	V plus pozzolan or slag	0.45	4,500

Use of alternate combinations of cementitious materials may be permitted if the combinations meet design recommendations contained in American Concrete Institute guideline ACI 318-11.

Our testing also indicates that there is a moderate to extremely high soluble chloride content (32.8 to 365.0 mg/kg) in the onsite soils. Therefore, special protection of reinforcing steel should be required due to soil conditions.

The soils were also tested for minimum electrical resistivity (ohm-cm). The test results indicate that the on-site soils have a pH in the range of 7.01 to 8.29 and a minimum electrical resistivity in the range of 850 to 1,330 ohm-cm. A neutral or non-corrosive soil has a pH value ranging from approximately 6.0 to 8.5; therefore, the onsite soils can be considered neutral. Generally, soils that could be considered moderately corrosive to ferrous metals have minimum resistivity values of about 3,000 ohm-cm to 10,000 ohm-cm. Soils with minimum resistivity values less than 3,000 ohm-cm can be considered corrosive and soils with minimum resistivity values less than 1,000 ohm-cm can be considered extremely corrosive. In any case, buried metal conduits should have a protective coating in accordance with the manufacturer's specifications. A corrosion specialist should be consulted if more detailed recommendations are required.

3.18 Pavement Sections

Current plans indicate that site improvements will include constructing new asphalt concrete (AC) driveways and parking areas. It is anticipated that a Traffic Index (TI) in the range of 5.0 to 8.0 should be applicable for the planned parking areas and driveways. Based on the laboratory testing that has been performed for this project (see Figures B6 through B10 in Appendix B), a subgrade R-Value of 10 is recommended for design purposes and has been used to

develop the pavement sections given below. The asphalt concrete (AC) structural section recommendations given herein were developed using the procedures outlined in Chapter 630 of the California Highway Design Manual. The design procedure is based on the principle that the pavement structural section must be of adequate thickness to distribute the load from the design TI to the subgrade soils in such a manner that the stresses from the applied loads do not exceed the strength of the soil (R-Value). Recommended minimum structural sections are given below:

Design TI	Recommended Minimum Pavement Section
≤ 5.0	2.5" AC over 10.0" Class 2 AB
5.5	3.0" AC over 10.5" Class 2 AB
6.0	3.0" AC over 12.5" Class 2 AB
7.0	4.0" AC over 14.0" Class 2 AB
8.0	4.5" AC over 17.0" Class 2 AB

Minimum PCC (Portland cement concrete) thickness sections are given below. Concrete should have a 28-day minimum compressive strength of 4,000 psi:

Design TI	Recommended Minimum PCC Pavement Section
≤ 5.0	6.5" PCC over 4.0" Class 2 AB
5.5	6.5" PCC over 4.0" Class 2 AB
6.0	6.5" PCC over 4.0" Class 2 AB
7.0	6.5" PCC over 5.0" Class 2 AB
8.0	7.0" PCC over 5.0" Class 2 AB

Prior to paving, the subgrade should be prepared in accordance with the Earthwork Recommendations Section of this report. At a minimum, the upper 12 inches of subgrade soils should be compacted to at least 95 percent relative compaction. All aggregate base (AB) courses should be moisture conditioned to within 2 percent of optimum moisture content and compacted to a minimum of 95 percent relative compaction. The AC or PCC mix design(s) and installation requirements should be specified by the Project Civil Engineer.

3.19 Plan Review

Once formal grading and foundation plans are prepared for the subject project, this office should review the plans from a geotechnical viewpoint, comment on changes from the plan used during preparation of this report and revise the recommendations of this report where necessary.

3.20 Geotechnical Observation and Testing During and After Grading

The geotechnical engineer should be contacted to provide observation and testing during the following stages of grading:

- During the clearing and grubbing of the site.
- During the demolition of any existing structures, buried utilities or other existing improvements.
- During excavation and over-excavation of existing subgrade.
- During all phases of grading including ground preparation and filling operations.

- When any unusual conditions are encountered during grading.

A grading and compaction report summarizing conditions encountered during grading and the in-place density testing that was performed should be submitted upon completion of the earthwork construction.

After the completion of grading, the geotechnical engineer should be contacted to provide additional observation and testing during the following construction activities:

- During trenching and backfilling operations of buried improvements and utilities to verify proper backfill and compaction of the utility trenches.
- After excavation and prior to placement of reinforcing steel or concrete within footing excavations to verify that footings are properly founded in competent materials.
- During fine or precise grading involving the placement of any fills underlying driveways, sidewalks, walkways, or other miscellaneous concrete flatwork to verify proper placement, mixing and compaction of fills.
- When any unusual ground or soil conditions are encountered during construction.

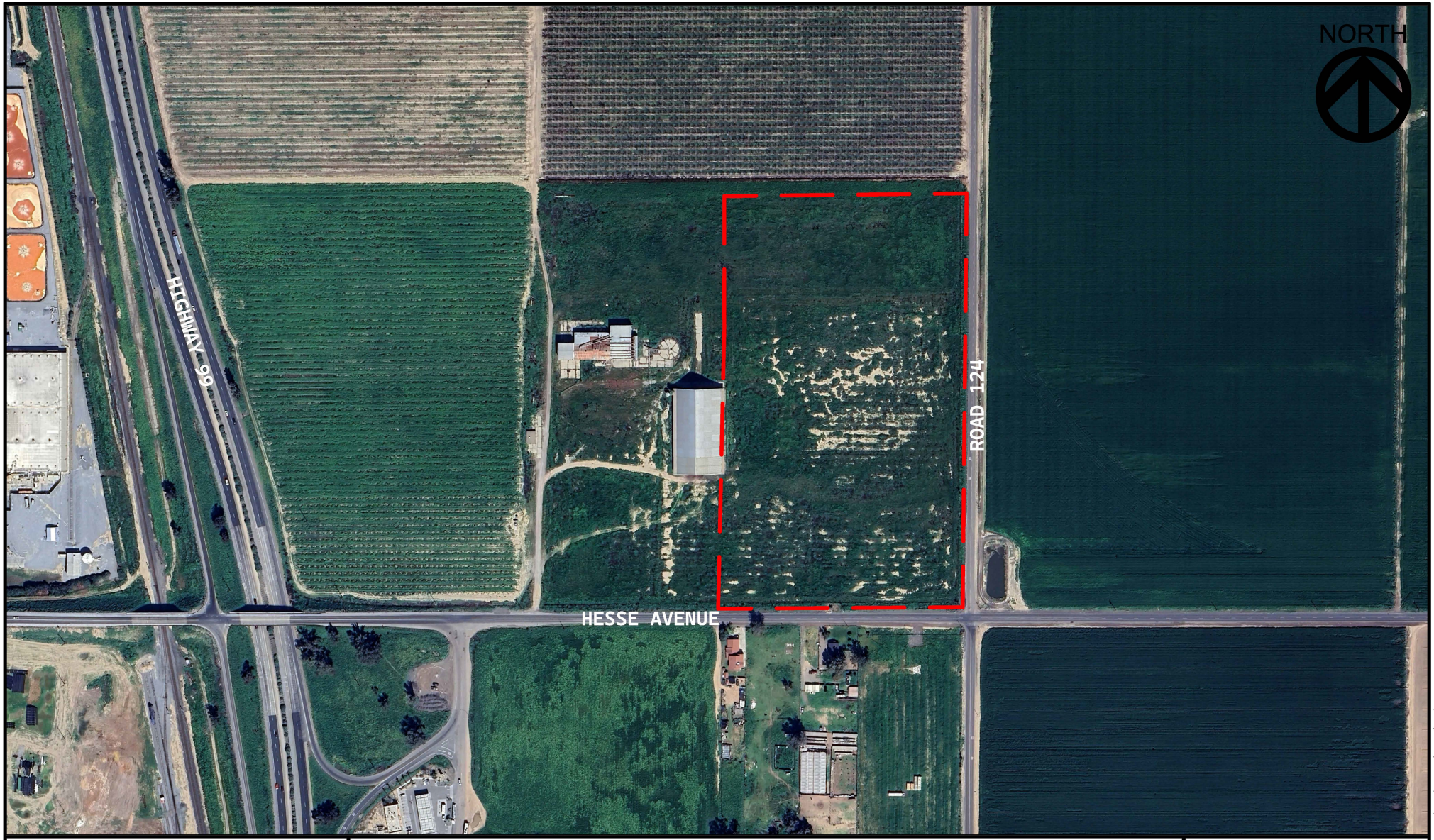
4.0 Closure

The findings, conclusions and recommendations in this report were prepared in accordance with generally accepted engineering and geologic principles and practices. No other warranty, either expressed or implied, is made. This report has been prepared for Hi-Tech Developing, Inc. and the Project Design Team to be used for the design and construction of the planned improvements as described above and at the location indicated on Figures 1 and 2. Anyone using this report for any other purpose must draw their own conclusions regarding required construction procedures and subsurface conditions.

The geotechnical engineering consultant should be retained during any future earthwork and foundation phases of construction to monitor compliance with the design concepts and recommendations and to provide additional recommendations as needed. Should subsurface conditions be encountered during construction that are different from those described in this report, this office should be notified immediately so that our recommendations may be re-evaluated.

RMA GeoScience
Every Project Matters | www.rmacompanies.com

FIGURES



Google Earth Map Reference (2024)

RMA GeoScience
Every Project Matters | www.rmacompanies.com

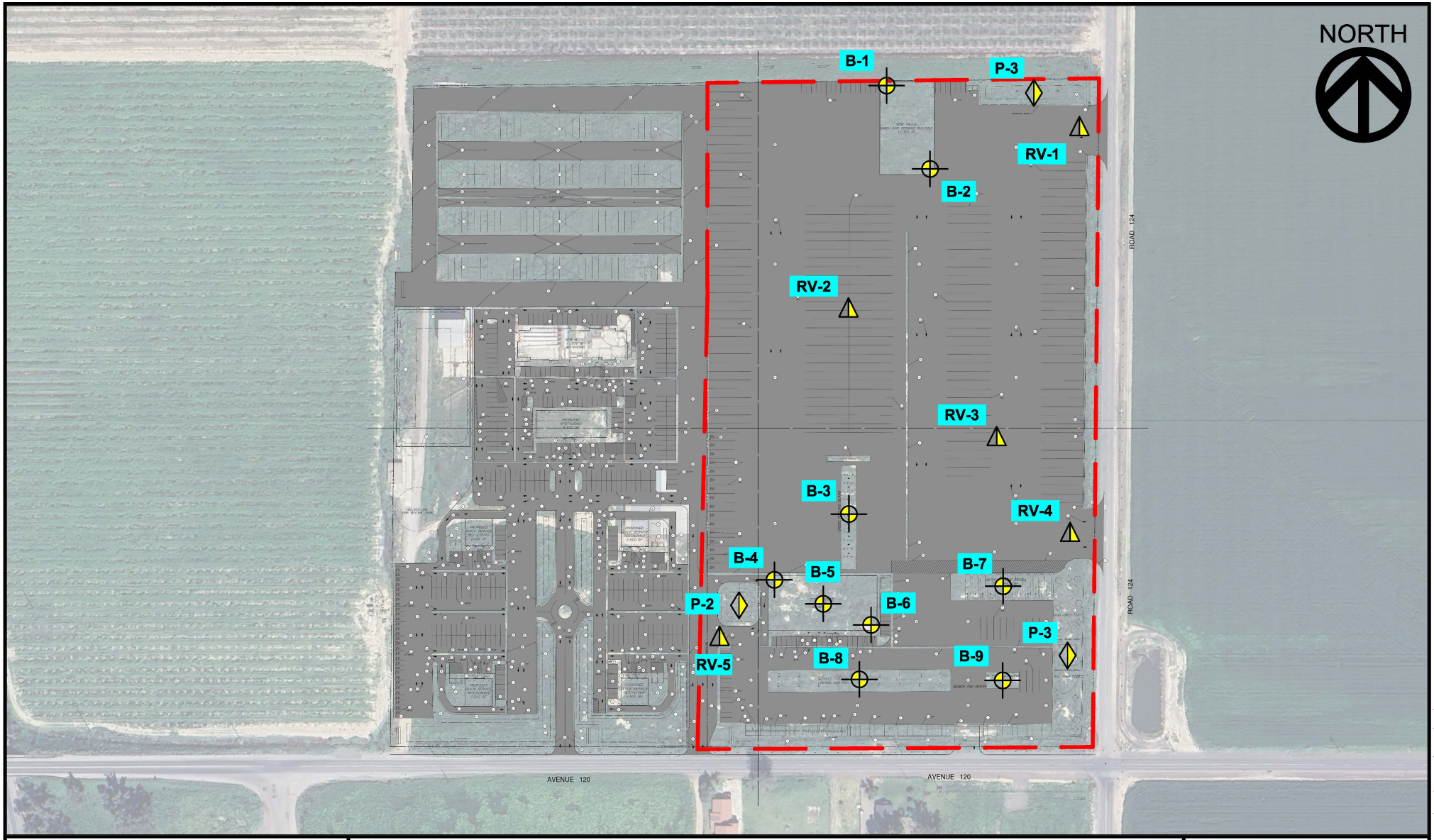
FIGURE 1
SITE VICINITY MAP
PROPOSED TRAVEL STOP

Approximate Limits of the Subject Property

Approximate Scale 1" = 400'

0' 200' 400' 800'

Staff Geologist:	Megan Stewart
Project Number:	07-240536-0
Project Location:	Northest Corner of Road 124 & Avenue 120 Portion of APNs 300-010-005 & 300-010-015 Pixley, California 93256
Date:	August 2024
Sheet:	1/2



RMA GeoScience
Every Project Matters | www.rmacompanies.com

FIGURE 2
FIELD EXPLORATION MAP
PROPOSED TRAVEL STOP

Approximate Limits of the Subject Property
Approximate Boring Location
Approximate R-Value Location
Approximate Percolation Test Location

Approximate Scale 1" = 250'
0' 125' 250' 500'

Staff Geologist: Megan Stewart
Project Number: 07-240536-0
Project Location:
Northest Corner of Road 124 & Avenue 120
Portion of APNs 300-010-005 & 300-010-015
Pixley, California 93256
Date: August 2024 **Sheet:** 2/2

RMA GeoScience
Every Project Matters | www.rmacompanies.com

APPENDIX A

FIELD INVESTIGATION

RMA GeoScience
Every Project Matters | www.rmacompanies.com

APPENDIX A

FIELD INVESTIGATION

A-1.00 FIELD EXPLORATION

A-1.01 Number of Borings

Our subsurface investigation consisted of excavating nine test borings to depths of approximately 21 feet below existing grade with a SIMCO 2800 drill rig equipped with a 4-inch solid stem auger and a 140-pound auto-hammer. The borings were performed on August 13 & 14, 2024.

A-1.02 Location of Borings

A map showing the approximate locations of the test borings is presented as Figure 2. GPS coordinates indicated on the logs are based on information provided by Google Earth Pro.

A-1.03 Boring Logging

Logs of the borings were prepared by our staff and are attached in this appendix. The logs contain factual information and interpretation of subsurface conditions between samples. The strata indicated on these logs represent the approximate boundary between earth units and the transition may be gradual. The logs show subsurface conditions at the dates and locations indicated, and may not be representative of subsurface conditions at other locations and times.

Identification of the soils encountered during the subsurface exploration was made using the field identification procedure of the Unified Soils Classification System (ASTM D2488). A legend defining the terms used in describing the relative compaction, consistency or firmness of the soil is included in this appendix. Bag or tube samples of the major earth units were obtained for laboratory inspection and testing.

I. SOIL STRENGTH/DENSITY

BASED ON STANDARD PENETRATION TESTS

Compactness of sand		Consistency of clay	
Penetration Resistance N (blows/ft)	Compactness	Penetration Resistance N (blows/ft)	Consistency
0-4	Very Loose	<2	Very Soft
4-10	Loose	2-4	Soft
10-30	Medium Dense	4-8	Medium Stiff
30-50	Dense	8-15	Stiff
>50	Very Dense	15-30	Very Stiff
		>30	Hard

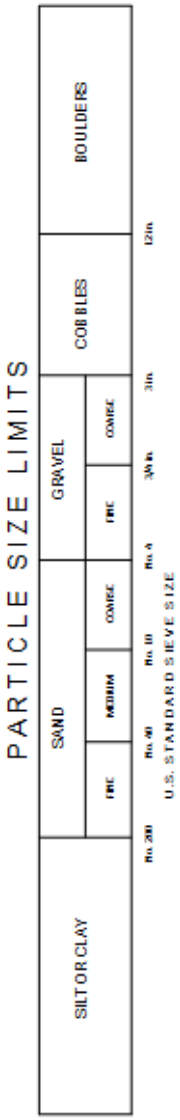
N = Number of blows of 140 lb. weight falling 30 in. to drive 2-in OD sampler 1 ft.

BASED ON RELATIVE COMPACTION

Compactness of sand		Consistency of clay	
% Compaction	Compactness	% Compaction	Consistency
<75	Loose	<80	Soft
75-83	Medium Dense	80-85	Medium Stiff
83-90	Dense	85-90	Stiff
>90	Very Dense	>90	Very Stiff

II. SOIL MOISTURE

Moisture of sands		Moisture of clays	
% Moisture	Description	% Moisture	Description
<5%	Dry	<12%	Dry
5-12%	Moist	12-20%	Moist
>12%	Very Moist	>20%	Very Moist, wet



MAJOR DIVISIONS			GROUP SYMBOLS	TYPICAL NAMES
COARSE GRAINED SOILS (More than 50% of material is LARGER than No. 200 sieve size)	GRAVELS (More than 50% of coarse fraction is LARGER than the No. 4 sieve size.)	CLEAN GRAVELS (Little or no fines)	GW	Well graded gravel, gravel-sand mixtures, little or no fines.
			GP	Poorly graded gravel or gravel-sand mixtures, little or no fines.
		GRAVELS WITH FINES (Appreciable amt. of fines)	GM	Silty gravels, gravel-sand-silt mixtures.
			GC	Clayey gravels, gravel-sand-clay mixtures.
	SANDS (More than 50% of coarse fraction is SMALLER than the No. 4 sieve size)	CLEAN SANDS (Little or no fines)	SW	Well graded sands, gravelly sands, little or no fines.
			SP	Poorly graded sands or gravelly sands, little or no fines.
		SANDS WITH FINES (Appreciable amount of fines)	SM	Silty sands, sand-silt mixtures.
			SC	Clayey sands, sand-clay mixtures.
FINE GRAINED SOILS (More than 50% of material is SMALLER than No. 200 sieve size)	SILTS AND CLAYS (Liquid limit LESS than 50)		ML	Inorganic silts and very fine sands, rock flour silty or clayey fine sands or clayey silts with slight plasticity
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
			OL	Organic silts and organic silty clays of low plasticity.
	SILTS AND CLAYS (Liquid limit GREATER than 50)		MH	Inorganic silts, micaceous or diatomaceous fine 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.

BOUNDARY CLASSIFICATIONS: Soils possessing characteristics of two groups are designated by combinations of group symbols.

RMA GeoScience
Every Project Matters | www.rmageoscience.com

GEOTECHNICAL CONSULTANTS

Exploratory Boring Log

Boring No. B-1
Sheet 1 of 1

Date Drilled:	August 13th, 2024	Drilling Equipment:	SIMCO 2800, Solid Stem Auger
Logged By:	GJV	Borehole Diameter:	4"
Location:	See Field Exploration Map	Drive Weights:	140 lbs. (Autohammer)
Geographic Position:	36.011102°, -119.296414°	Drop Height:	30"

Depth (ft)	Samples: Sample Type	Samples: Blows (blows/ft)	Samples: Bulk Sample	Moisture Content (%)	Dry Density (pcf)	USCS	Graphic Symbol	Material Description
								This log contains factual information and interpretation of the subsurface conditions between the samples. The stratum indicated on this log represent the approximate boundary between earth units and the transition may be gradual. The log show subsurface conditions at the date and location indicated, and may not be representative of subsurface conditions at other locations and times.
0	R	11	▨	5.4	110.8	SM		**ALLUVIUM:** brown, fine to medium SILTY SAND, moist, medium dense
5	R	16		8.1	121.8			
10	S	9						. . .light brown, decreasing fines content, loose
15	S	14				ML/SM		Gray brown, fine SANDY SILT minor CLAY/SILTY SAND minor CLAY, moist, stiff . . .with interlayers of SILTY CLAY
20	S	16				ML		Brown, fine SANDY SILT, moist, very stiff, with caliche
25								Notes: 1. Boring terminated at approximately 21' 2. No groundwater encountered 3. Boring backfilled with soil cuttings
30								
35								

***Note**
All blow counts associated with Modified California Sample are uncorrected. The sampler dimensions are as follows:
ID = 2.5" OD = 3"

Sample Types:
S - SPT Sample
▨ - Bulk Sample
T - Modified California Tube Sample
R - Modified California Ring Sample

Symbols:
▽ - Groundwater
◣ - End of Boring

RMA GeoScience
Every Project Matters | www.rmageoscience.com

GEOTECHNICAL CONSULTANTS

Exploratory Boring Log

Boring No. B-2
Sheet 1 of 1

Date Drilled:	August 13th, 2024	Drilling Equipment:	SIMCO 2800, Solid Stem Auger
Logged By:	GJV	Borehole Diameter:	4"
Location:	See Field Exploration Map	Drive Weights:	140 lbs. (Autohammer)
Geographic Position:	36.010718°, -119.296082°	Drop Height:	30"

Depth (ft)	Samples: Sample Type	Samples: Blows (blows/ft)	Samples: Bulk Sample	Moisture Content (%)	Dry Density (pcf)	USCS	Graphic Symbol	Material Description
								This log contains factual information and interpretation of the subsurface conditions between the samples. The stratum indicated on this log represent the approximate boundary between earth units and the transition may be gradual. The log show subsurface conditions at the date and location indicated, and may not be representative of subsurface conditions at other locations and times.
	R	9		3.6	100.0			**ALLUVIUM:** light brown, fine SILTY SAND, dry, loose
								. . .fine to medium grained
5	R	17		4.1	111.7	SM		. . .medium dense
10	R	19		6.6	110.8			. . .brown to gray brown, with interlayers of SANDY CLAY, moist
						CL/SC		Brown, fine SANDY CLAY/CLAYEY SAND, moist, very stiff
15	S	26						. . .with interlayers of SILTY SAND
								. . .contains wet interlayers
						ML		Brown, fine SANDY SILT minor CLAY, very moist, stiff
20	S	10						
25								Notes: 1. Boring terminated at approximately 21' 2. No groundwater encountered 3. Boring backfilled with soil cuttings
30								
35								

***Note**
All blow counts associated with Modified California Sample are uncorrected. The sampler dimensions are as follows:
ID = 2.5" OD = 3"

Sample Types:
S - SPT Sample
Bulk Sample
T - Modified California Tube Sample
R - Modified California Ring Sample

Symbols:
- Groundwater
- End of Boring

RMA GeoScience
Every Project Matters | www.rmageoscience.com

GEOTECHNICAL CONSULTANTS

Exploratory Boring Log

Boring No. B-3
Sheet 1 of 1

Date Drilled:	August 14th, 2024	Drilling Equipment:	SIMCO 2800, Solid Stem Auger
Logged By:	GJV	Borehole Diameter:	4"
Location:	See Field Exploration Map	Drive Weights:	140 lbs. (Autohammer)
Geographic Position:	36.009080°, -119.296629°	Drop Height:	30"

Depth (ft)	Samples: Sample Type	Samples: Blows (blows/ft)	Samples: Bulk Sample	Moisture Content (%)	Dry Density (pcf)	USCS	Graphic Symbol	Material Description
	R	13	▨	8.6	95.9	ML		**ALLUVIUM:** brown to light brown, fine SANDY SILT minor CLAY, dry, stiff
5	R	18		4.7	115.6	SM		Brown, fine to medium SILTY SAND, dry, medium dense
10	S	21						. . .with interlayers of SANDY SILT minor CLAY, moist
15	S	43				ML		Brown, fine SANDY SILT minor CLAY, moist, hard, with interlayers of caliche and minor cementation
20								Notes: 1. Boring terminated at approximately 16' 2. No groundwater encountered 3. Boring backfilled with soil cuttings
25								
30								
35								

***Note**
All blow counts associated with Modified California Sample are uncorrected. The sampler dimensions are as follows:
ID = 2.5" OD = 3"

Sample Types:
S - SPT Sample
▨ - Bulk Sample
T - Modified California Tube Sample
R - Modified California Ring Sample

Symbols:
▽ - Groundwater
◣ - End of Boring

RMA GeoScience
Every Project Matters | www.rmageoscience.com

GEOTECHNICAL CONSULTANTS

Exploratory Boring Log

Boring No. B-4
Sheet 1 of 1

Date Drilled:	August 13th, 2024	Drilling Equipment:	SIMCO 2800, Solid Stem Auger
Logged By:	GJV	Borehole Diameter:	4"
Location:	See Field Exploration Map	Drive Weights:	140 lbs. (Autohammer)
Geographic Position:	36.008748°, -119.297146°	Drop Height:	30"

Depth (ft)	Samples: Sample Type	Samples: Blows (blows/ft)	Samples: Bulk Sample	Moisture Content (%)	Dry Density (pcf)	USCS	Graphic Symbol	Material Description
0	R	6		6.2	108.7	SM		**ALLUVIUM:** light brown, fine to medium SILTY SAND, dry, loose
								. . .brown, moist
5	R	11						. . .fine to coarse grained, decreasing fines content, medium dense
10	S	14						. . .fine to medium grained, trace CLAY
						ML		Brown, fine SANDY SILT trace CLAY, moist, very stiff
15	S	15						
						SM		Brown, fine SILTY SAND minor CLAY with interlayers of SANDY SILT and SILTY CLAY, moist, medium dense
20	S	10						
25								Notes: 1. Boring terminated at approximately 21' 2. No groundwater encountered 3. Boring backfilled with soil cuttings
30								
35								

The log contains factual information and interpretation of the subsurface conditions between the samples. The stratum indicated on this log represent the approximate boundary between earth units and the transition may be gradual. The log show subsurface conditions at the date and location indicated, and may not be representative of subsurface conditions at other locations and times.

***Note**
All blow counts associated with Modified California Sample are uncorrected. The sampler dimensions are as follows:
ID = 2.5" OD = 3"

Sample Types:
S - SPT Sample
Bulk Sample
T - Modified California Tube Sample
R - Modified California Ring Sample

Symbols:
- Groundwater
- End of Boring

RMA GeoScience
Every Project Matters | www.rmageoscience.com

GEOTECHNICAL CONSULTANTS

Exploratory Boring Log

Boring No. B-5
Sheet 1 of 1

Date Drilled:	August 13th, 2024	Drilling Equipment:	SIMCO 2800, Solid Stem Auger
Logged By:	GJV	Borehole Diameter:	4"
Location:	See Field Exploration Map	Drive Weights:	140 lbs. (Autohammer)
Geographic Position:	36.008597°, -119.296791°	Drop Height:	30"

Depth (ft)	Samples: Sample Type	Samples: Blows (blows/ft)	Samples: Bulk Sample	Moisture Content (%)	Dry Density (pcf)	USCS	Graphic Symbol	Material Description
	R	19	▨	9.2	99.4	ML		**ALLUVIUM:** light brown, fine to medium SANDY SILT minor CLAY, dry, very stiff
								. . .brown
5	R	16		5.4	106.5	SM		Brown, fine to medium SILTY SAND, moist, medium dense
								. . .contains wet interlayers
10	R	51		12.2	127.1			. . .fine grained, with interlayers of SANDY SILT minor CLAY, very moist, very dense, with caliche
15	S	50/4"				ML		Brown, fine SANDY SILT minor CLAY, moist, hard, with interlayers of caliche and minor cementation
20	S	10						. . .brown to gray brown, no CLAY, stiff
25								Notes: 1. Boring terminated at approximately 21' 2. No groundwater encountered 3. Boring backfilled with soil cuttings
30								
35								

***Note**
All blow counts associated with Modified California Sample are uncorrected. The sampler dimensions are as follows:
ID = 2.5" OD = 3"

Sample Types:
S - SPT Sample
▨ - Bulk Sample
T - Modified California Tube Sample
R - Modified California Ring Sample

Symbols:
▽ - Groundwater
◣ - End of Boring

RMA GeoScience
Every Project Matters | www.rmageoscience.com

GEOTECHNICAL CONSULTANTS

Exploratory Boring Log

Boring No. B-6
Sheet 1 of 1

Date Drilled:	August 13th, 2024	Drilling Equipment:	SIMCO 2800, Solid Stem Auger
Logged By:	GJV	Borehole Diameter:	4"
Location:	See Field Exploration Map	Drive Weights:	140 lbs. (Autohammer)
Geographic Position:	36.008455°, -119.296458°	Drop Height:	30"

Depth (ft)	Samples: Sample Type	Samples: Blows (blows/ft)	Samples: Bulk Sample	Moisture Content (%)	Dry Density (pcf)	USCS	Graphic Symbol	Material Description
	R	16	▨	7.6	107.8	ML		**ALLUVIUM:** brown to light brown, fine SANDY SILT, dry, very stiff . . .with interlayers of SILTY SAND
5	R	19		3.9	112.4	SM		Brown, fine to medium SILTY SAND, dry, medium dense . . .with interlayers of SANDY SILT
10	S	15				ML		Brown, fine SANDY SILT minor CLAY, moist, very stiff
15	S	41						. . .with interlayers of SILTY SAND, hard, with caliche
20	S	16				SM		Brown, fine to medium SILTY SAND with interlayers of SANDY SILT, moist, medium dense
25								Notes: 1. Boring terminated at approximately 21' 2. No groundwater encountered 3. Boring backfilled with soil cuttings
30								
35								

***Note**
All blow counts associated with Modified California Sample are uncorrected. The sampler dimensions are as follows:
ID = 2.5" OD = 3"

Sample Types:
S - SPT Sample
▨ - Bulk Sample
T - Modified California Tube Sample
R - Modified California Ring Sample

Symbols:
▽ - Groundwater
◣ - End of Boring

RMA GeoScience
Every Project Matters | www.rmageoscience.com

GEOTECHNICAL CONSULTANTS

Exploratory Boring Log

Boring No. B-7
Sheet 1 of 1

Date Drilled:	August 14th, 2024	Drilling Equipment:	SIMCO 2800, Solid Stem Auger
Logged By:	GJV	Borehole Diameter:	4"
Location:	See Field Exploration Map	Drive Weights:	140 lbs. (Autohammer)
Geographic Position:	36.008689°, -119.295625°	Drop Height:	30"

Depth (ft)	Samples: Sample Type	Samples: Blows (blows/ft)	Samples: Bulk Sample	Moisture Content (%)	Dry Density (pcf)	USCS	Graphic Symbol	Material Description
	R	10	▨	6.9	106.9	SM		**ALLUVIUM:** light brown, fine SILTY SAND, moist, medium dense
								. . .brown, fine to medium grained, trace CLAY
5	R	19		5.8	115.3			. . .with interlayers of SANDY SILT minor CLAY
10	S	9						. . .loose
15	S	50/3"						. . .very dense, with interlayers of minor cementation
20								
25								
30								
35								

This log contains factual information and interpretation of the subsurface conditions between the samples. The stratum indicated on this log represent the approximate boundary between earth units and the transition may be gradual. The log show subsurface conditions at the date and location indicated, and may not be representative of subsurface conditions at other locations and times.

Notes:
1. Boring terminated at approximately 16'
2. No groundwater encountered
3. Boring backfilled with soil cuttings

***Note**
All blow counts associated with Modified California Sample are uncorrected. The sampler dimensions are as follows:
ID = 2.5" OD = 3"

Sample Types:
S - SPT Sample
▨ - Bulk Sample
T - Modified California Tube Sample
R - Modified California Ring Sample

Symbols:
▽ - Groundwater
◣ - End of Boring

RMA GeoScience
Every Project Matters | www.rmageoscience.com

GEOTECHNICAL CONSULTANTS

Exploratory Boring Log

Boring No. B-8
Sheet 1 of 1

Date Drilled:	August 14th, 2024	Drilling Equipment:	SIMCO 2800, Solid Stem Auger
Logged By:	GJV	Borehole Diameter:	4"
Location:	See Field Exploration Map	Drive Weights:	140 lbs. (Autohammer)
Geographic Position:	36.008146°, -119.296561°	Drop Height:	30"

Depth (ft)	Samples: Sample Type	Samples: Blows (blows/ft)	Samples: Bulk Sample	Moisture Content (%)	Dry Density (pcf)	USCS	Graphic Symbol	Material Description
0	R	20	▨	6.6	104.6	ML		**ALLUVIUM:** light brown, fine SANDY SILT, dry, very stiff
								. . .with interlayers of SILTY SAND
5	R	21		7.9	119.9			. . .trace CLAY
10	S	10						. . .moist, with CLAY, stiff
15	S	31						. . .hard
20								Notes: 1. Boring terminated at approximately 16' 2. No groundwater encountered 3. Boring backfilled with soil cuttings
25								
30								
35								

***Note**
All blow counts associated with Modified California Sample are uncorrected. The sampler dimensions are as follows:
ID = 2.5" OD = 3"

Sample Types:
S - SPT Sample
▨ - Bulk Sample
T - Modified California Tube Sample
R - Modified California Ring Sample

Symbols:
▽ - Groundwater
◣ - End of Boring

RMA GeoScience
Every Project Matters | www.rmageoscience.com

GEOTECHNICAL CONSULTANTS

Exploratory Boring Log

Boring No. B-9
Sheet 1 of 1

Date Drilled:	August 14th, 2024	Drilling Equipment:	SIMCO 2800, Solid Stem Auger
Logged By:	GJV	Borehole Diameter:	4"
Location:	See Field Exploration Map	Drive Weights:	140 lbs. (Autohammer)
Geographic Position:	36.008145°, -119.295638°	Drop Height:	30"

Depth (ft)	Samples: Sample Type	Samples: Blows (blows/ft)	Samples: Bulk Sample	Moisture Content (%)	Dry Density (pcf)	USCS	Graphic Symbol	Material Description
								This log contains factual information and interpretation of the subsurface conditions between the samples. The stratum indicated on this log represent the approximate boundary between earth units and the transition may be gradual. The log show subsurface conditions at the date and location indicated, and may not be representative of subsurface conditions at other locations and times.
	R	16	▨	7.7	102.3			**ALLUVIUM:** light brown, fine SANDY SILT, dry, very stiff
								. . .with interlayers of SILTY SAND
5	R	41		5.8	109.7	ML		. . .trace CLAY, no interlayers, hard, with caliche
10	S	27						. . .with CLAY, very stiff
						SM		Brown, fine to medium SILTY SAND with interlayers of SANDY SILT minor CLAY, moist, very dense, with interlayers of caliche and minor cementation
15	S	53						
20								
25								
30								
35								

Notes:
1. Boring terminated at approximately 16'
2. No groundwater encountered
3. Boring backfilled with soil cuttings

***Note**
All blow counts associated with Modified California Sample are uncorrected. The sampler dimensions are as follows:
ID = 2.5" OD = 3"

Sample Types:
S - SPT Sample
▨ - Bulk Sample
T - Modified California Tube Sample
R - Modified California Ring Sample

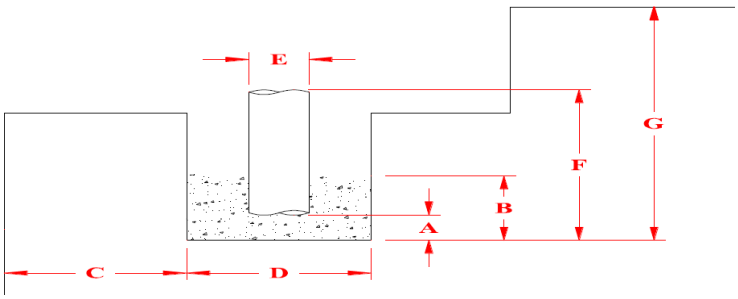
Symbols:
▽ - Groundwater
◣ - End of Boring

Project No.: 07-240536-0

RMA GeoScience
Every Project Matters | www.rmacompanies.com

Percolation Test Data Sheet

Project Name: Proposed Travel Stop
Field Geologist/Engineer: Gabe V.
Percolation Test No.: P-1
GPS Coordinates: 36.011065°, -119.295405°



A	Gravel Layer Depth (in)	4
B	Gravel Thickness (in)	4
C	Distance from Shelf (ft)	N/A
D	Hole Diameter (in)	4
E	Pipe Diameter (in)	3
F	Reference Depth (in)	64
G	Hole Depth (in)	64

Soil Type	ML
Depth to GW (ft)	182

Date & Time Saturated: 8/13/2024 @ 12:15 PM
Depth of Water after 24-hour Saturation: 0.5ft

Begin Test	Intial Depth to Water* (ft)	Intial Depth to Water* (in)	Refilled	End Test	Final Depth to Water* (ft)	Final Depth to Water* (in)	Test Duration	Water Drop (in)	Rate min/in
11:05 AM	2.21	26.56	Yes	11:10 AM	2.20	26.37	5	0.187	26.71
11:10 AM	2.20	26.37	No	11:15 AM	2.18	26.19	5	0.187	26.71
11:15 AM	2.18	26.19	No	11:20 AM	2.17	26.0	5	0.187	26.71
11:20 AM	2.17	26.0	No	11:25 AM	2.15	25.81	5	0.187	26.71
11:25 AM	2.15	25.81	No	11:30 AM	2.14	25.62	5	0.187	26.71
11:30 AM	2.14	25.62	No	11:35 AM	2.12	25.44	5	0.187	26.71

* Depth below reference datum

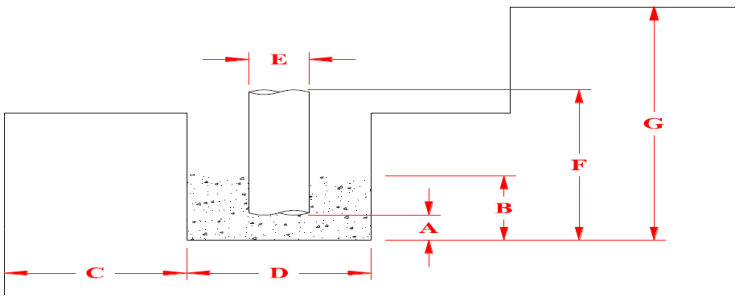
Average Rate min/in	26.71
Correction Factor	1.4
Corrected Rate min/in	37.39
Infiltration Rate in/hr	0.16

Project No.: 07-240536-0

RMA GeoScience
Every Project Matters | www.rmacompanies.com

Percolation Test Data Sheet

Project Name: Proposed Travel Stop
Field Geologist/Engineer: Gabe V.
Percolation Test No.: P-2
GPS Coordinates: 36.008585°, -119.297335°



A	Gravel Layer Depth (in)	4
B	Gravel Thickness (in)	4
C	Distance from Shelf (ft)	N/A
D	Hole Diameter (in)	4
E	Pipe Diameter (in)	3
F	Reference Depth (in)	64
G	Hole Depth (in)	64

Soil Type	ML
Depth to GW (ft)	182

Date & Time Saturated: 8/13/2024 @ 12:35 PM
Depth of Water after 24-hour Saturation: 1.75ft

Begin Test	Intial Depth to Water* (ft)	Intial Depth to Water* (in)	Refilled	End Test	Final Depth to Water* (ft)	Final Depth to Water* (in)	Test Duration	Water Drop (in)	Rate min/in
12:15 PM	2.66	31.88	Yes	12:20 PM	2.64	31.62	5	0.25	19.94
12:20 PM	2.64	31.62	No	12:25 PM	2.63	31.5	5	0.12	40.06
12:25 PM	2.63	31.5	No	12:30 PM	2.61	31.38	5	0.12	40.06
12:30 PM	2.61	31.38	No	12:35 PM	2.60	31.25	5	0.12	40.06
12:35 PM	2.60	31.25	No	12:40 PM	2.59	31.13	5	0.12	40.06
12:40 PM	2.59	31.13	No	12:45 PM	2.58	31.0	5	0.12	40.06

* Depth below reference datum

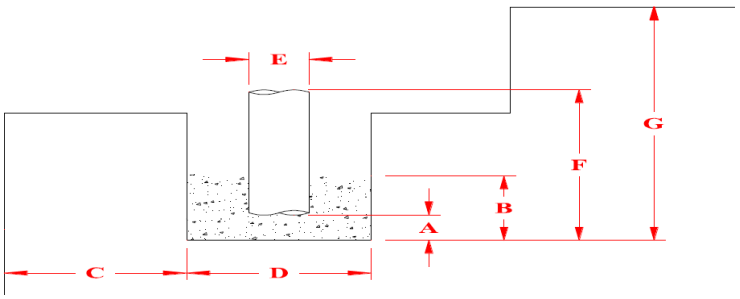
Average Rate min/in	40.06
Correction Factor	1.4
Corrected Rate min/in	56.09
Infiltration Rate in/hr	0.09

Project No.: 07-240536-0

RMA GeoScience
Every Project Matters | www.rmacompanies.com

Percolation Test Data Sheet

Project Name: Proposed Travel Stop
Field Geologist/Engineer: Gabe V.
Percolation Test No.: P-3
GPS Coordinates: 36.008300°, -119.295217°



A	Gravel Layer Depth (in)	4
B	Gravel Thickness (in)	4
C	Distance from Shelf (ft)	N/A
D	Hole Diameter (in)	4
E	Pipe Diameter (in)	3
F	Reference Depth (in)	64
G	Hole Depth (in)	64

Soil Type	ML
Depth to GW (ft)	182

Date & Time Saturated: 8/13/2024 @ 12:25 PM
Depth of Water after 24-hour Saturation: 0.25ft

Begin Test	Intial Depth to Water* (ft)	Intial Depth to Water* (in)	Refilled	End Test	Final Depth to Water* (ft)	Final Depth to Water* (in)	Test Duration	Water Drop (in)	Rate min/in
11:35 AM	1.9	22.75	Yes	11:40 AM	1.86	22.38	5	0.37	13.35
11:40 AM	1.86	22.38	No	11:45 AM	1.84	22.13	5	0.25	20.03
11:45 AM	1.84	22.13	No	11:50 AM	1.82	21.88	5	0.25	20.03
11:50 AM	1.82	21.88	No	11:55 AM	1.8	21.63	5	0.25	20.03
11:55 AM	1.8	21.63	No	12:00 PM	1.78	21.38	5	0.25	20.03
12:00 PM	1.78	21.38	No	12:05 PM	1.76	21.13	5	0.25	20.03

* Depth below reference datum

Average Rate min/in	20.03
Correction Factor	1.4
Corrected Rate min/in	28.04
Infiltration Rate in/hr	0.26

RMA GeoScience
Every Project Matters | www.rmacompanies.com

APPENDIX B

LABORATORY TESTS

APPENDIX B

B-1.00 LABORATORY TESTS

B-1.01 Moisture Determination

The moisture content of tube and ring samples obtained from the test boring was determined in accordance with ASTM D2216, the standard method for determining the water content of soil using a drying oven. The mass of material remaining after oven drying is used as the mass of the solid particles. The results of these tests are provided on the boring logs in Appendix A.

B-1.02 Density of Tube Samples

The densities of tube and ring samples, which were obtained using a split-barrel sampler, were determined in accordance with ASTM D2937. The results of these tests are provided on the boring logs in Appendix A.

B-1.03 Soluble Sulfates and Chlorides

Tests were performed in accordance with California Test Methods 417 and 422 on one near-surface soil sample obtained during the field exploration. These tests were performed by Dellavalle Laboratory, Inc. located in Fresno, California (see Table B1 for results).

B-1.04 Soil Reactivity (pH) and Minimum Electrical Resistivity

One near-surface soil sample was tested for soil reactivity (pH) and minimum electrical resistivity using California Test Method 643 (see Table B1). The pH measurement determines the degree of acidity or alkalinity in the soils. The minimum electrical resistivity is used as an indicator of how corrosive the soil is relative to buried metallic items.

TABLE B1: SUMMARY OF CORROSIVITY TEST RESULTS

Sample Location	Soluble Sulfates (mg/kg)	Soluble Chlorides (mg/kg)	pH	Minimum Resistivity (ohm-cm)
B-1 @ 1’ – 3’	221.0	32.8	7.01	1,330
B-8 @ 1’ – 3’	265.0	365.0	8.29	850

B-1.05 Percent Passing #200 Sieve

Seven soil samples were tested in accordance with ASTM D1140 to determine the percent passing the #200 sieve (see Table B2). This represents the amount of silt and clay that is present in the soil.

TABLE B2: PERCENT PASSING #200 SIEVE TEST RESULTS

Sample Location	Dry Weight Before Wash (grams)	Dry Weight After Wash (grams)	Percent Passing #200 Sieve
B-2 @ 1' – 3'	292.7	192.2	34
B-4 @ 1' – 3'	287.6	174.4	39
B-5 @ 1' – 3'	279.1	124.6	55
B-6 @ 1' – 3'	283.9	100.9	64
B-6 @ 5.5'	289.1	190.7	34
B-7 @ 1' – 3'	286.5	150.8	47
B-9 @ 1' – 3'	283.7	119.8	58

B-1.06 Atterberg Limits

The liquid limit, plastic limit, and the plasticity index of one near-surface soil sample were determined using the standard test methods of ASTM D4318 (See Figure B1).

B-1.07 Expansion Index

Expansion index testing was performed on one near-surface sample of the on-site soils in accordance with the standard test methods of ASTM D4829. The results of this test are shown on Figure B2.

B-1.08 Direct Shear

One 3-point direct shear test was performed on a representative near-surface sample of soil using the standard test method of ASTM D3080 (consolidated and drained). Shear testing was performed on a direct shear machine of the strain-controlled type. To simulate possible adverse field conditions, the sample was saturated prior to shearing. Three soil specimens were sheared at varying normal loads for the test and the results plotted to establish the angle of the internal friction and cohesion of the tested sample. The results of these tests are shown on Figure B3.

B-1.09 One-Dimensional Consolidation Properties

The magnitude and rate of consolidation of soils obtained from test borings, when it is restrained laterally and drained axially while subjected to incrementally applied controlled-stress loading, was determined using the standard test methods of ASTM D2435. The results of these tests are shown on Figures B4 and B5.

B-1.10 Resistance Value

Five Resistance Value (R-Value) test was performed on representative samples of subgrade obtained from planned paved areas using test methods outlined in ASTM D2844 (see Figures B6 through B10).

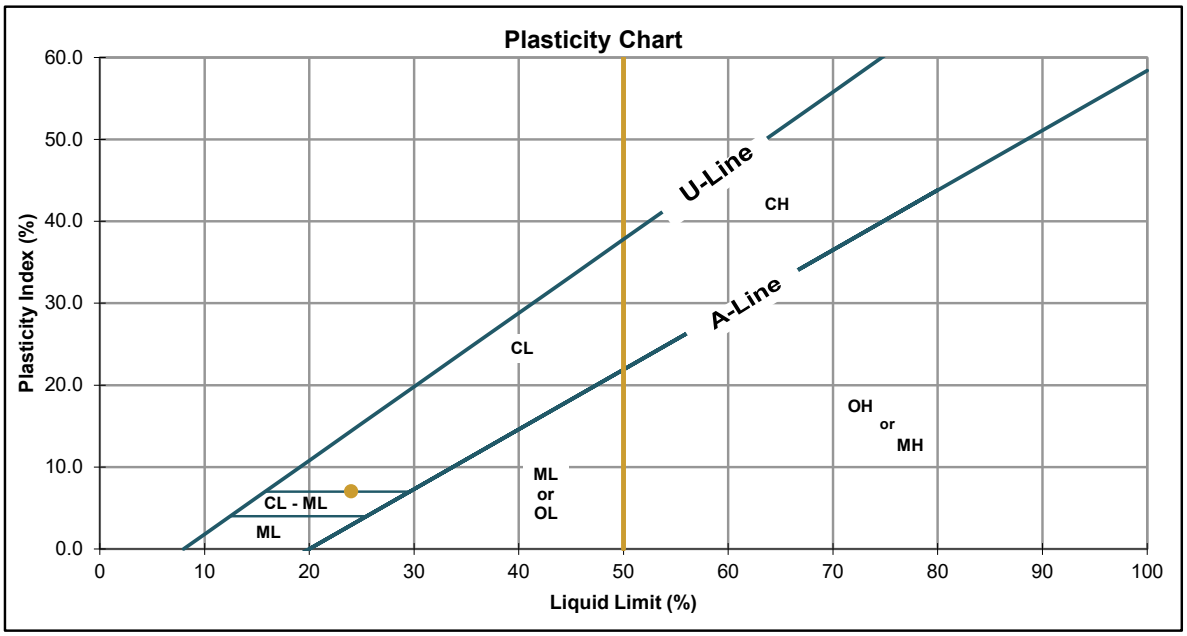
RMA GeoScience
Every Project Matters | www.rmacompanies.com

Figure B1
Laboratory Test Form | ASTM D4318
Plasticity Index (PI) of Soils

Project Number:	07-240536-0/02	Lab ID:	24-017213
Project Name:	Proposed Travel Stop	Date Tested:	8/29/2024
Sampled By:	Gabe V.	Tested By:	Jason M.
Sample Date:	8/14/2024		
Sample Location:	B-3 @ 1ft - 3ft		
Sample Description:	Sandy SILT minor Clay, fine grained, brown		

Plasticity Index Results

Liquid Limit:	24
Average Plastic Limit :	17
Plasticity Index:	7

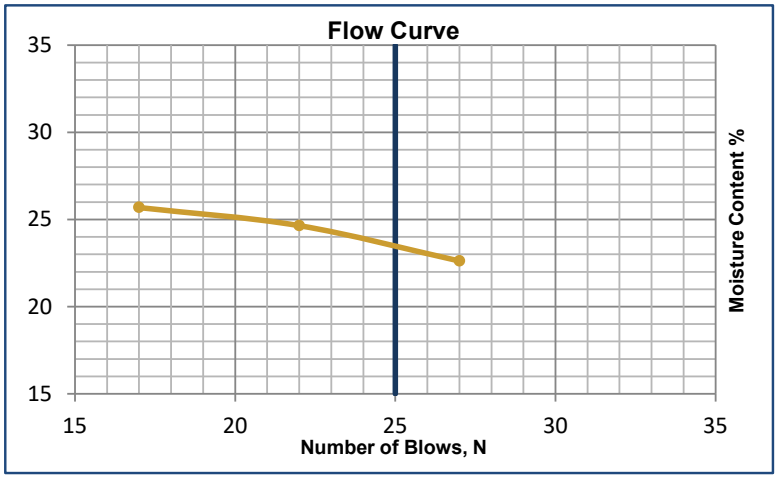


Liquid Limit Data

	Trial 1	Trial 2	Trial 3
Wet Weight (gm.)	13.90	13.17	15.64
Dry Weight (gm.)	12.95	12.30	14.23
Tare Weight (gm.)	8.75	8.77	8.74
Number of Blows	27	22	17
Moisture Content (%)	22.6	24.6	25.7

Plastic Limit Data

	Trial 1	Trial 2
Wet Weight (gm.)	26.58	26.47
Dry Weight (gm.)	25.61	25.48
Tare Weight (gm.)	19.8	19.73
Moisture Content (%)	16.7	17.2



Results relate only to the items inspected or tested. (Statement required per ASTM E329-23 Section 12.1.10) Report shall not be reproduced, except in full, without the prior written approval of the agency. (As required per ASTM E329-23 Section 12.1.11)

RMA GeoScience
Every Project Matters | www.rmacompanies.com

Figure B2
Laboratory Test Form | ASTM D4829
Expansion Index of Soils

Project Number:	07-240536-0/02	Lab ID:	24-017219
Project Name:	Proposed Travel Stop	Date Sampled:	8/14/2024
Sampled By:	Gabe V.	Date Tested:	8/28/2024
Tested By:	Jason M		
Sample Location:	B-8 @ 1ft - 3ft		
Sample Description:	Sandy SILT minor Clay, fine grained, brown		

Expansion Readings

Initial Sample Height (in):	0.0121
Final Sample Height (in):	0.0271
Expansion (in):	**0.0150**
Expansion Index, EI:	15

Classification of Expansive Soil

EI	Potential Expansion
0 - 20	Very Low
21 - 50	Low
51 - 90	Medium
91 - 130	High
>130	Very High

Expansion Index Data

Initial Set-Up Data		Final Data	
Sample + Tare Weight (gm):	768.5	Sample + Tare Weight (gm):	798.0
Tare Weight (gm):	365.6	Tare Weight (gm):	365.6
Initial Gauge Reading (in):	0.0599	Final Gauge Reading (in):	0.0602
Moisture Content And Density Data			
Wet Weight + Tare (gm):	100.0	Wet Weight + Tare (gm):	798.0
Dry Weight + Tare (gm):	90.9	Dry Weight + Tare (gm):	730.1
Tare Weight (gm):	0	Tare Weight (gm):	365.6
Moisture Content:	10.0%	Moisture Content:	18.6%
Initial Volume (ft^3):	0.007345	Final Volume (ft^3):	0.007381
Remolded Wet Density (pcf):	120.9	Final Wet Density (pcf):	129.1
Remolded Dry Density (pcf):	109.9	Final Dry Density (pcf):	108.9
Degree of Saturation:	**51**	Assumed Specific Gravity:	2.7

Results relate only to the items inspected or tested. Report shall not be reproduced, except in full, without written approval of the agency. (As required by ASTM E-329-23)

3897 N Ann Ave Fresno, CA 93727 559.708.8865 | 559.228.9488 fax

RMA GeoScience
Every Project Matters | www.rmacompanies.com

Figure B4a
Laboratory Test Form | ASTM D2435
Consolidation, No Time Rate

Project Number:	07-240536-0/02	Lab ID:	24-017181
Project Name:	Proposed Travel Stop	Date Sampled:	8/13/2024
Sampled By:	Gabe V.	Date Tested:	8/20/24 - 9/4/24
Tested By:	Jennifer K.		
Sample Location:	B-2 @ 5.5ft		
Sample Description:	Silty SAND, fine to medium grained, light brown		
Sample Preparation:	In-Situ Ring Sample		

Consolidation Test Data

Initial Data		Final Data	
Initial Sample Height (in):	1.0000	Final Sample Height (in):	0.9775
Intial Void Ratio:	0.52	Final Void Ratio:	0.49
Initial Gauge Reading (in):	0.2511	Final Gauge Reading (in):	0.2736

Moisture Content and Density Data

Intial Wet Weight + Tare (gm):	172.36	Final Wet Weight + Tare (gm):	189.50
Intial Dry Weight + Tare (gm):	167.10	Final Dry Weight + Tare (gm):	167.10
Tare Weight (gm):	42.40	Tare Weight (gm):	42.40
Initial Moisture Content:	4.22%	Final Moisture Content:	17.96%
Initial Volume (ft^3):	0.002531	Final Volume (ft^3):	0.002474
Initial Wet Density (pcf):	113.18	Final Wet Density (pcf):	131.06
Initial Dry Density (pcf):	108.60	Final Dry Density (pcf):	111.10
Initial Degree of Saturation:	20.7	Final Degree of Saturation:	93.9

Moisture Condition	Load (psf)	Dial Reading (in)	Sample Height (in)	Axial Strain (%)
In Situ	0	0.2511	1.0000	0.00
	100	0.2515	0.9996	0.04
	250	0.2516	0.9995	0.05
Saturated	250	0.2516	0.9995	0.05
	500	0.2516	0.9995	0.05
	1000	0.2517	0.9994	0.06
	2000	0.2527	0.9984	0.16
	4000	0.2635	0.9876	1.24
	8000	0.2789	0.9722	2.78
	4000	0.2772	0.9739	2.61
	2000	0.2755	0.9756	2.44
	1000	0.2736	0.9775	2.25

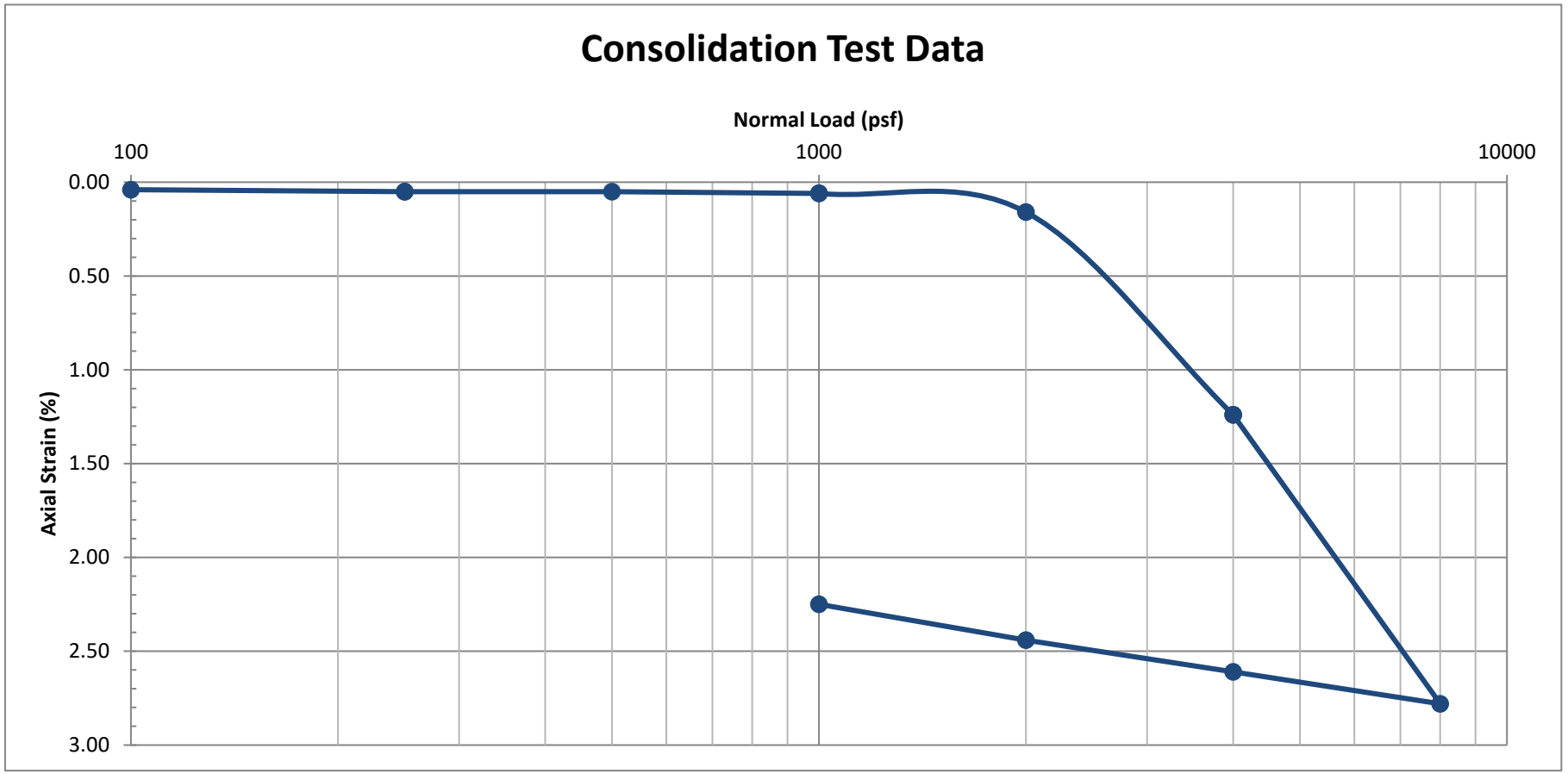
Results relate only to the items inspected or tested. Report shall not be reproduced, expect in full, without written approval of the agency.

(As required by ASTM E-329-23)

3897 N Ann Ave Fresno, CA 93727 559.708.8865 | 559.228.9488 fax

RMA GeoScience
Every Project Matters | www.rmacompanies.com

Figure B4b
Laboratory Test Form | ASTM D2435
Consolidation, No Time Rate



Project Number:	07-240536-0/02	**Project Name:**		Proposed Travel Stop	
Date Tested:	8/20/24 - 9/4/24	**Lab ID:**	24-017181	**Sample Location:**	B-2 @ 5.5ft
Tested By:	Jennifer K.	**Description:**	SM	**Sampled By:**	Gabe V.

Results relate only to the items inspected or tested. Report shall not be reproduced, except in full, without written approval of the agency. (As required by ASTM E-329-23)

3897 N Ann Ave Fresno, CA 93727 559.708.8865 | 559.228.9488 fax

RMA GeoScience
Every Project Matters | www.rmacompanies.com

Figure B5a
Laboratory Test Form | ASTM D2435
Consolidation, No Time Rate

Project Number:	07-240536-0/02	Lab ID:	24-017224
Project Name:	Proposed Travel Stop	Date Sampled:	8/14/2024
Sampled By:	Gabe V.	Date Tested:	8/20/24 - 9/4/24
Tested By:	Jennifer K.		
Sample Location:	B-9 @ 5.5ft		
Sample Description:	Sandy SILT trace Clay, fine grained, light brown		
Sample Preparation:	In-Situ Ring Sample		

Consolidation Test Data

Initial Data		Final Data	
Initial Sample Height (in):	1.0000	Final Sample Height (in):	0.9820
Intial Void Ratio:	0.41	Final Void Ratio:	0.39
Initial Gauge Reading (in):	0.2478	Final Gauge Reading (in):	0.2658

Moisture Content and Density Data

Intial Wet Weight + Tare (gm):	184.70	Final Wet Weight + Tare (gm):	201.60
Intial Dry Weight + Tare (gm):	178.10	Final Dry Weight + Tare (gm):	178.10
Tare Weight (gm):	43.50	Tare Weight (gm):	43.50
Initial Moisture Content:	4.90%	Final Moisture Content:	17.46%
Initial Volume (ft^3):	0.002531	Final Volume (ft^3):	0.002486
Initial Wet Density (pcf):	122.97	Final Wet Density (pcf):	140.21
Initial Dry Density (pcf):	117.22	Final Dry Density (pcf):	119.37
Initial Degree of Saturation:	30.3	Final Degree of Saturation:	114.6

Moisture Condition	Load (psf)	Dial Reading (in)	Sample Height (in)	Axial Strain (%)
In Situ	0	0.2478	1.0000	0.00
	100	0.2481	0.9997	0.03
	250	0.2493	0.9985	0.15
Saturated	250	0.2492	0.9986	0.14
	500	0.2493	0.9985	0.15
	1000	0.2493	0.9985	0.15
	2000	0.2506	0.9972	0.28
	4000	0.2601	0.9877	1.23
	8000	0.2741	0.9737	2.63
	4000	0.2724	0.9754	2.46
	2000	0.2694	0.9784	2.16
	1000	0.2658	0.9820	1.80

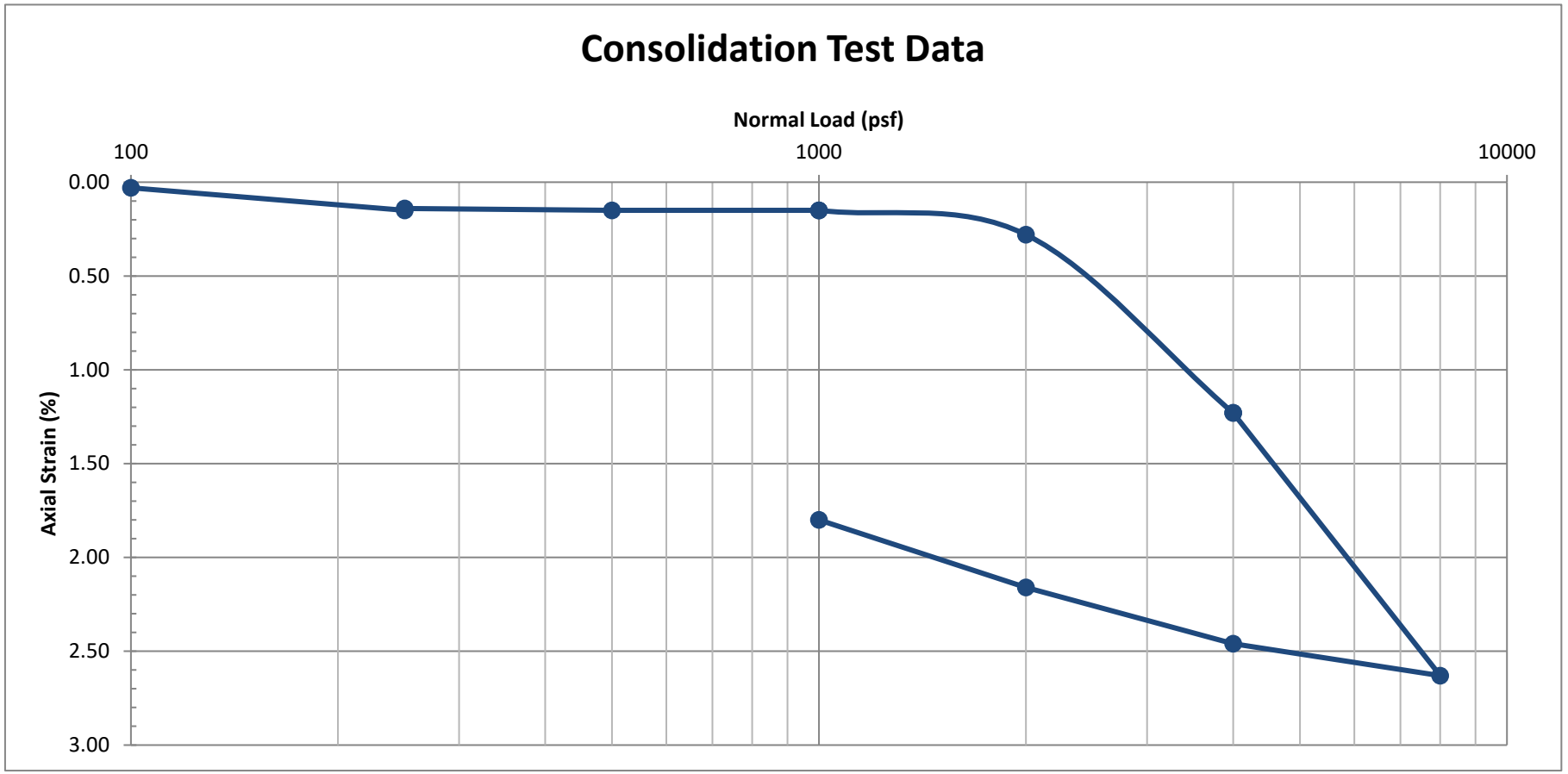
Results relate only to the items inspected or tested. Report shall not be reproduced, expect in full, without written approval of the agency.

(As required by ASTM E-329-23)

3897 N Ann Ave Fresno, CA 93727 559.708.8865 | 559.228.9488 fax

RMA GeoScience
Every Project Matters | www.rmacompanies.com

Figure B5b
Laboratory Test Form | ASTM D2435
Consolidation, No Time Rate



Project Number:	07-240536-0/02	**Project Name:**		Proposed Travel Stop	
Date Tested:	8/20/24 - 9/4/24	**Lab ID:**	24-017224	**Sample Location:**	B-9 @ 5.5ft
Tested By:	Jennifer K.	**Description:**	ML	**Sampled By:**	Gabe V.

Results relate only to the items inspected or tested. Report shall not be reproduced, except in full, without written approval of the agency. (As required by ASTM E-329-23)

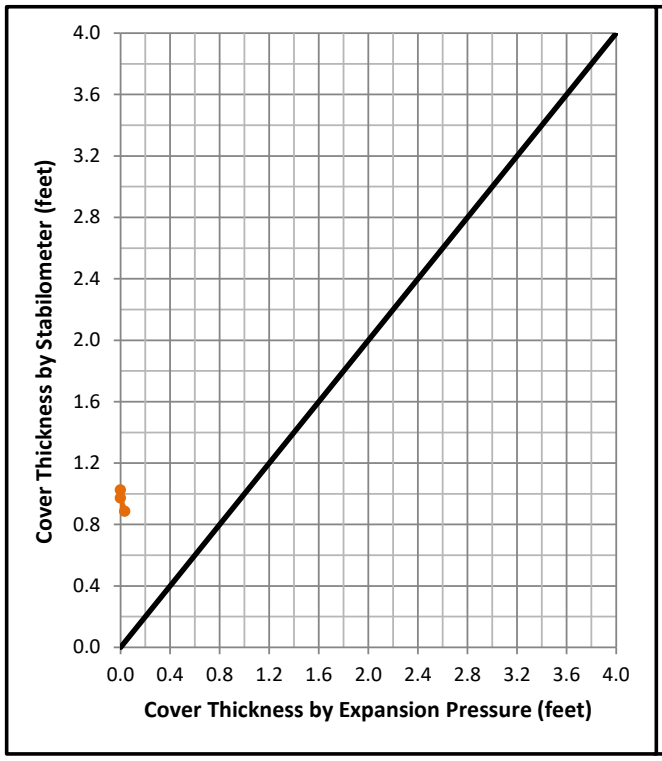
3897 N Ann Ave Fresno, CA 93727 559.708.8865 | 559.228.9488 fax

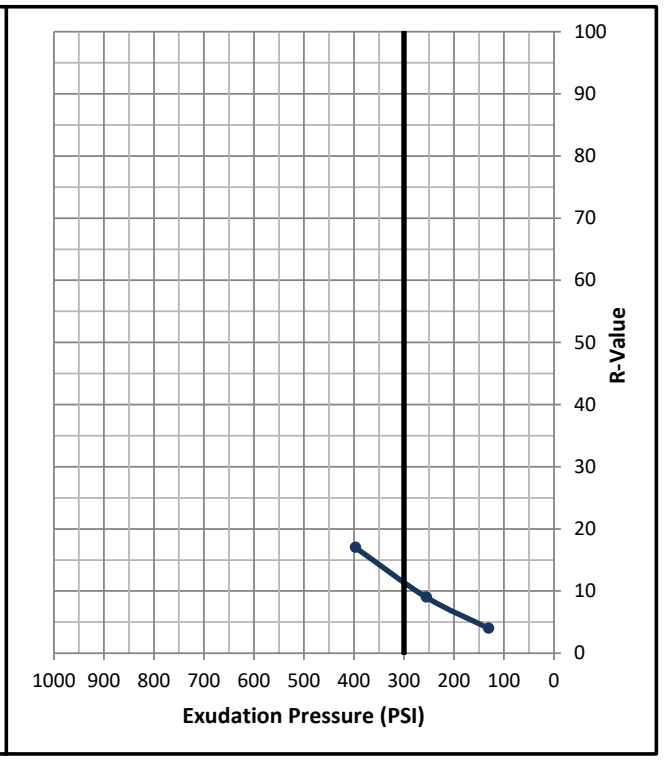
RMA GeoScience
Every Project Matters | www.rmacompanies.com

Figure B6
Laboratory Test Form | ASTM D2844
Resistance "R-Value" and Expansion Pressure of Compacted Soil

Project Number:	07-240586-0/02		
Project Name:	Proposed Travel Stop	Lab ID:	24-017225
Sampled By:	Gabe V.	Date Sampled:	8/14/2024
Tested By:	Jason M.	Date Tested:	8/27/2024
Sample Location:	RV-1 @ 0.5ft - 3ft		
Description:	Sandy SILT, fine grained, brown		

"R" Value at 300psi Exudation Pressure:	11
"R" Value by Expansion Pressure:	N/A





Specimen:	1	2	3
Exudation Pressure Load (lbs):	1641	3208	4988
Exudation Pressure (psi):	131	255	397
Expansion * (0.0001 in):	0	0	1
Expansion Pressure (psf):	0	0	4
Stabilometer Value at 2000 lbs:	145	130	109
Displacement:	6.15	5.95	5.50
Resistance "R" Value:	4	9	18
"R" Value Corrected for Height:	4	9	17
Percent Moisture at Test:	15.9	14.6	13.3
Dry Density at Test (pcf):	124.2	123.7	120.0

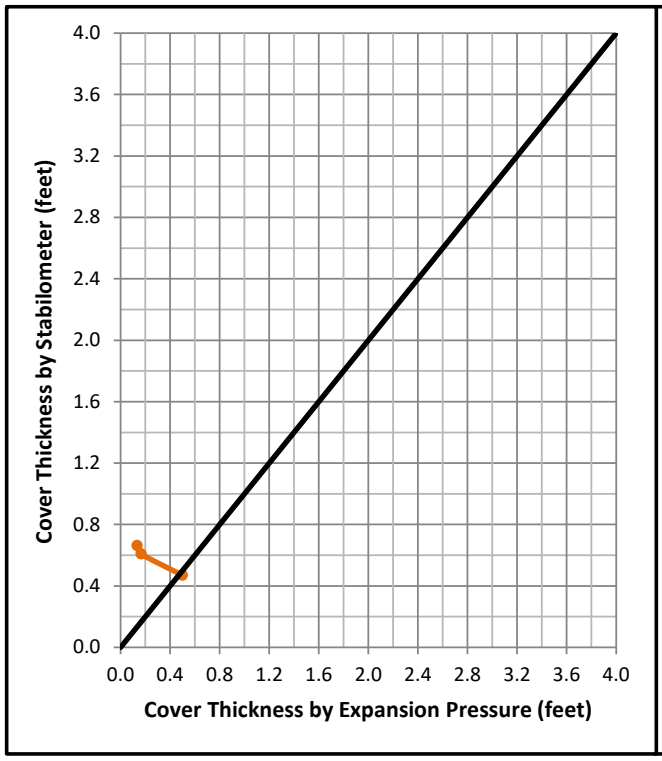
Results relate only to the items inspected or tested. (Statement required per ASTM E329-23 Section 12.1.10) Report shall not be reproduced, except in full, without the prior written approval of the agency (As required per ASTM E329-23 Section 12.1.11)

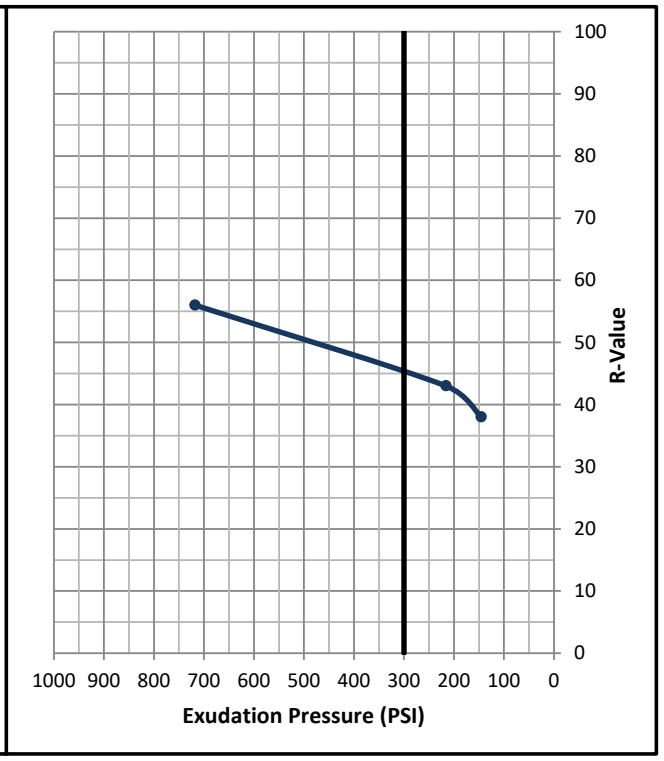
RMA GeoScience
Every Project Matters | www.rmacompanies.com

Figure B7
Laboratory Test Form | ASTM D2844
Resistance "R-Value" and Expansion Pressure of Compacted Soil

Project Number:	07-240586-0/02		
Project Name:	Proposed Travel Stop	Lab ID:	24-017226
Sampled By:	Gabe V.	Date Sampled:	8/14/2024
Tested By:	Jason M.	Date Tested:	8/27/2024
Sample Location:	RV-2 @ 0.5ft - 3ft		
Description:	Silty SAND, fine to medium grained, brown		

"R" Value at 300psi Exudation Pressure:	45
"R" Value by Expansion Pressure:	48





Specimen:	1	2	3
Exudation Pressure Load (lbs):	1832	2715	9017
Exudation Pressure (psi):	146	216	718
Expansion * (0.0001 in):	4	5	15
Expansion Pressure (psf):	17	22	65
Stabilometer Value at 2000 lbs:	66	62	47
Displacement:	5.65	5.25	4.75
Resistance "R" Value:	39	43	56
"R" Value Corrected for Height:	38	43	56
Percent Moisture at Test:	13.7	12.4	11.1
Dry Density at Test (pcf):	124.0	123.9	125.3

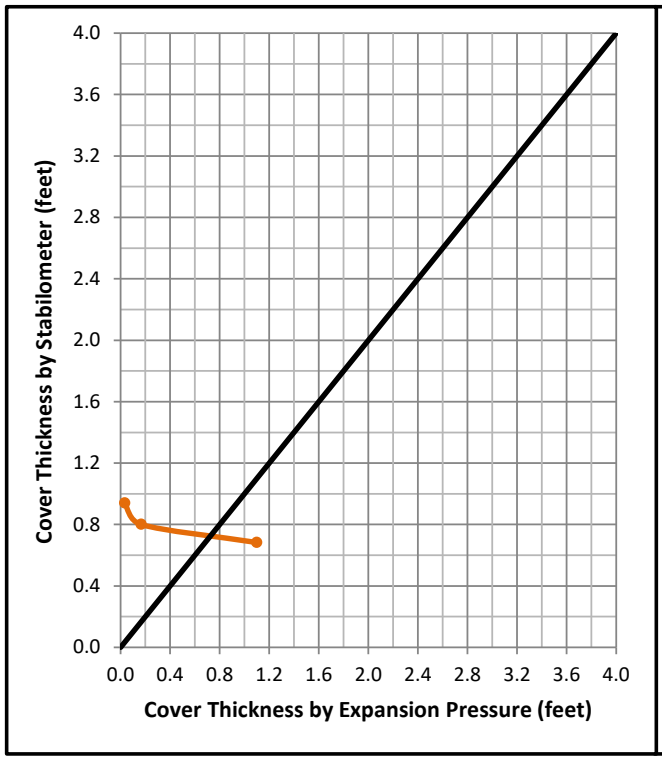
Results relate only to the items inspected or tested. (Statement required per ASTM E329-23 Section 12.1.10) Report shall not be reproduced, except in full, without the prior written approval of the agency (As required per ASTM E329-23 Section 12.1.11)

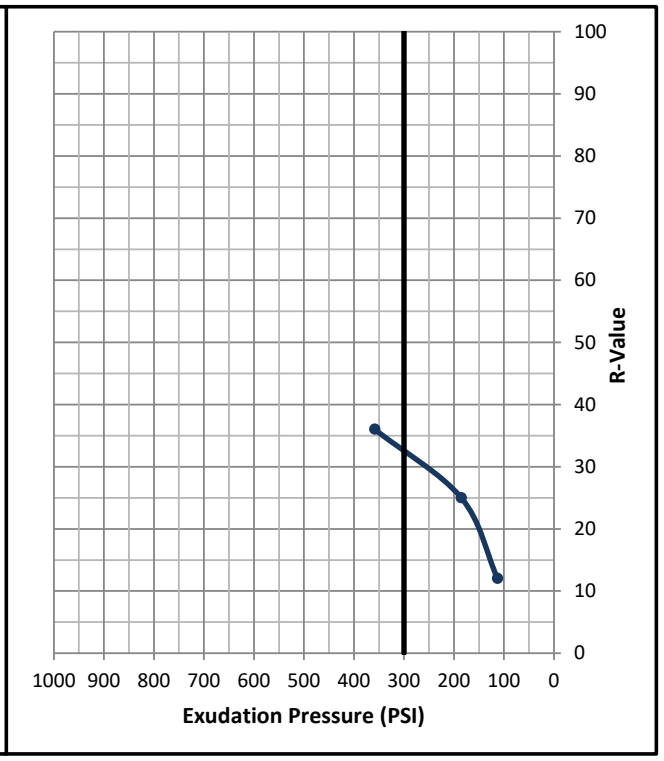
RMA GeoScience
Every Project Matters | www.rmacompanies.com

Figure B8
Laboratory Test Form | ASTM D2844
Resistance "R-Value" and Expansion Pressure of Compacted Soil

Project Number:	07-240586-0/02		
Project Name:	Proposed Travel Stop	Lab ID:	24-017227
Sampled By:	Gabe V.	Date Sampled:	8/14/2024
Tested By:	Jason M.	Date Tested:	8/27/2024
Sample Location:	RV-3 @ 0.5ft - 3ft		
Description:	Silty SAND, fine to medium grained, brown		

"R" Value at 300psi Exudation Pressure:	32
"R" Value by Expansion Pressure:	30





Specimen:	1	2	3
Exudation Pressure Load (lbs):	1418	2329	4500
Exudation Pressure (psi):	113	185	358
Expansion * (0.0001 in):	1	5	33
Expansion Pressure (psf):	4	22	143
Stabilometer Value at 2000 lbs:	115	84	67
Displacement:	7.02	6.74	5.81
Resistance "R" Value:	12	25	37
"R" Value Corrected for Height:	12	25	36
Percent Moisture at Test:	15.8	14.5	13.1
Dry Density at Test (pcf):	116.5	117.1	114.6

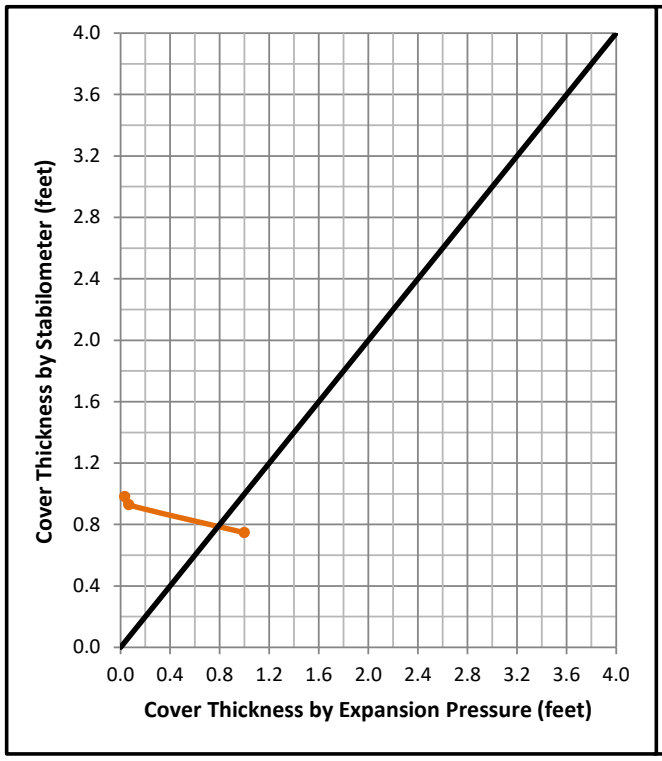
Results relate only to the items inspected or tested. (Statement required per ASTM E329-23 Section 12.1.10) Report shall not be reproduced, except in full, without the prior written approval of the agency (As required per ASTM E329-23 Section 12.1.11)

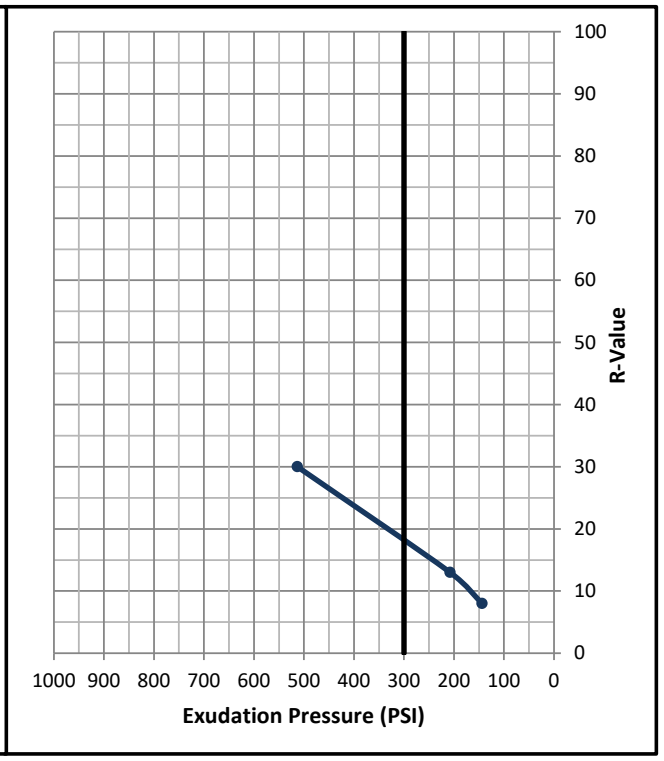
RMA GeoScience
Every Project Matters | www.rmacompanies.com

Figure B9
Laboratory Test Form | ASTM D2844
Resistance "R-Value" and Expansion Pressure of Compacted Soil

Project Number:	07-240586-0/02		
Project Name:	Proposed Travel Stop	Lab ID:	24-017228
Sampled By:	Gabe V.	Date Sampled:	8/14/2024
Tested By:	Jason M.	Date Tested:	8/27/2024
Sample Location:	RV-4 @ 0.5ft - 3ft		
Description:	Silty SAND trace CLAY, fine to medium grained, brown		

"R" Value at 300psi Exudation Pressure:	18
"R" Value by Expansion Pressure:	25





Specimen:	1	2	3
Exudation Pressure Load (lbs):	1809	2610	6446
Exudation Pressure (psi):	144	208	513
Expansion * (0.0001 in):	1	2	30
Expansion Pressure (psf):	4	9	130
Stabilometer Value at 2000 lbs:	134	121	84
Displacement:	5.74	5.31	5.20
Resistance "R" Value:	8	13	30
"R" Value Corrected for Height:	8	13	30
Percent Moisture at Test:	14.4	13.1	11.7
Dry Density at Test (pcf):	117.2	118.1	120.6

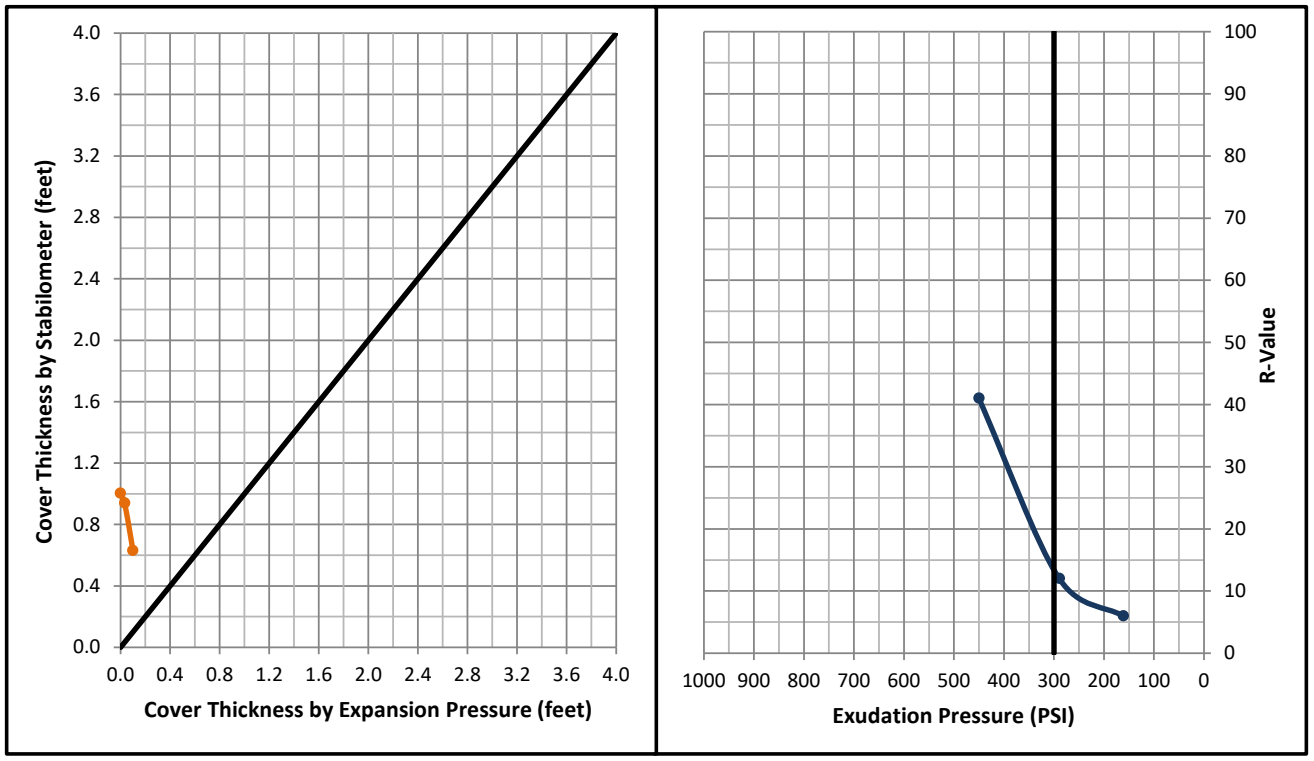
Results relate only to the items inspected or tested. (Statement required per ASTM E329-23 Section 12.1.10) Report shall not be reproduced, except in full, without the prior written approval of the agency (As required per ASTM E329-23 Section 12.1.11)

RMA GeoScience
Every Project Matters | www.rmacompanies.com

Figure B-10
Laboratory Test Form | ASTM D2844
Resistance "R-Value" and Expansion Pressure of Compacted Soil

Project Number:	07-240586-0/02		
Project Name:	Proposed Travel Stop	Lab ID:	24-017229
Sampled By:	Gabe V.	Date Sampled:	8/14/2024
Tested By:	Jason M.	Date Tested:	8/29/2024
Sample Location:	RV-5 @ 0.5ft - 3ft		
Description:	Sandy SILT, fine grained, brown		

"R" Value at 300psi Exudation Pressure:	13
"R" Value by Expansion Pressure:	N/A



Specimen:	1	2	3
Exudation Pressure Load (lbs):	2028	3636	5655
Exudation Pressure (psi):	161	289	450
Expansion * (0.0001 in):	0	1	3
Expansion Pressure (psf):	0	4	13
Stabilometer Value at 2000 lbs:	141	124	70
Displacement:	5.21	5.14	4.66
Resistance "R" Value:	6	12	41
"R" Value Corrected for Height:	6	12	41
Percent Moisture at Test:	15.1	13.3	11.6
Dry Density at Test (pcf):	120.4	122.9	123.7

Results relate only to the items inspected or tested. (Statement required per ASTM E329-23 Section 12.1.10) Report shall not be reproduced, except in full, without the prior written approval of the agency (As required per ASTM E329-23 Section 12.1.11)

RMA GeoScience
Every Project Matters | www.rmacompanies.com

APPENDIX C

REFERENCES

RMA GeoScience
Every Project Matters | www.rmacompanies.com

APPENDIX C

REFERENCES

1. Bartow, J. A. (1991). *The Cenozoic evolution of the San Joaquin Valley, California* (No. 1501).

2. Bailey, E. H., Irwin, W. P., and Jones, D. L. (1964). *Franciscan and related rocks and their significance in the geology of western California* (Vol. 183). California Division of Mines and Geology.

3. 2022 California Building Code, California Code of Regulations, Title 24, 2022.

4. California Department of Water Resources, Sustainable Groundwater Management Act (SGMA) Data Viewer https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer#gwlevels and Groundwater Level Monitoring Website: http://www.water.ca.gov/groundwater/data_and_monitoring/levels.cfm

5. California Geological Survey, 2010, Map No. 6 – Fault Activity Map of California.

6. Harden, D.R. 2004. *California Geology*. 2nd ed. Pearson-Prentice Hall.

7. Hammond, W. C., Blewitt, G., Li, Z., Plag, H. P., & Kreemer, C. (2012). Contemporary uplift of the Sierra Nevada, western United States, from GPS and InSAR measurements. *Geology*, *40*(7), 667-670.

8. Irwin, W. P. (1990). Geology and plate-tectonic development. *The San Andreas Fault System, California*, *1515*, 61-80.

9. Page, R. W. (1986). *Geology of the fresh ground-water basin of the Central Valley, California: with texture maps and sections*. US Government Printing Office.

10. Seed, H.B. and Whitman, R.V., 1970, "Design of Earth Retaining Structures for Dynamic Loads" Proceedings, ASCE Specialty Conference on lateral stresses in the ground and design of earth retaining structures, ASCE, pp 103-147

11. Structural Engineers Association of California and California Office of Statewide Planning and Development, 2020, Seismic Design Maps, ASCE 7-16 Standard, https://seismicmaps.org/

12. Tulare County General Plan 2030, August 2012. http://generalplan.co.tulare.ca.us/

13. Tulare County General Plan Background Report, February 2010. http://generalplan.co.tulare.ca.us/

14. Wakabayashi, J. (1992). Nappes, tectonics of oblique plate convergence, and metamorphic evolution related to 140 million years of continuous subduction, Franciscan Complex, California. *The Journal of Geology, 100(1)*, 19-40.

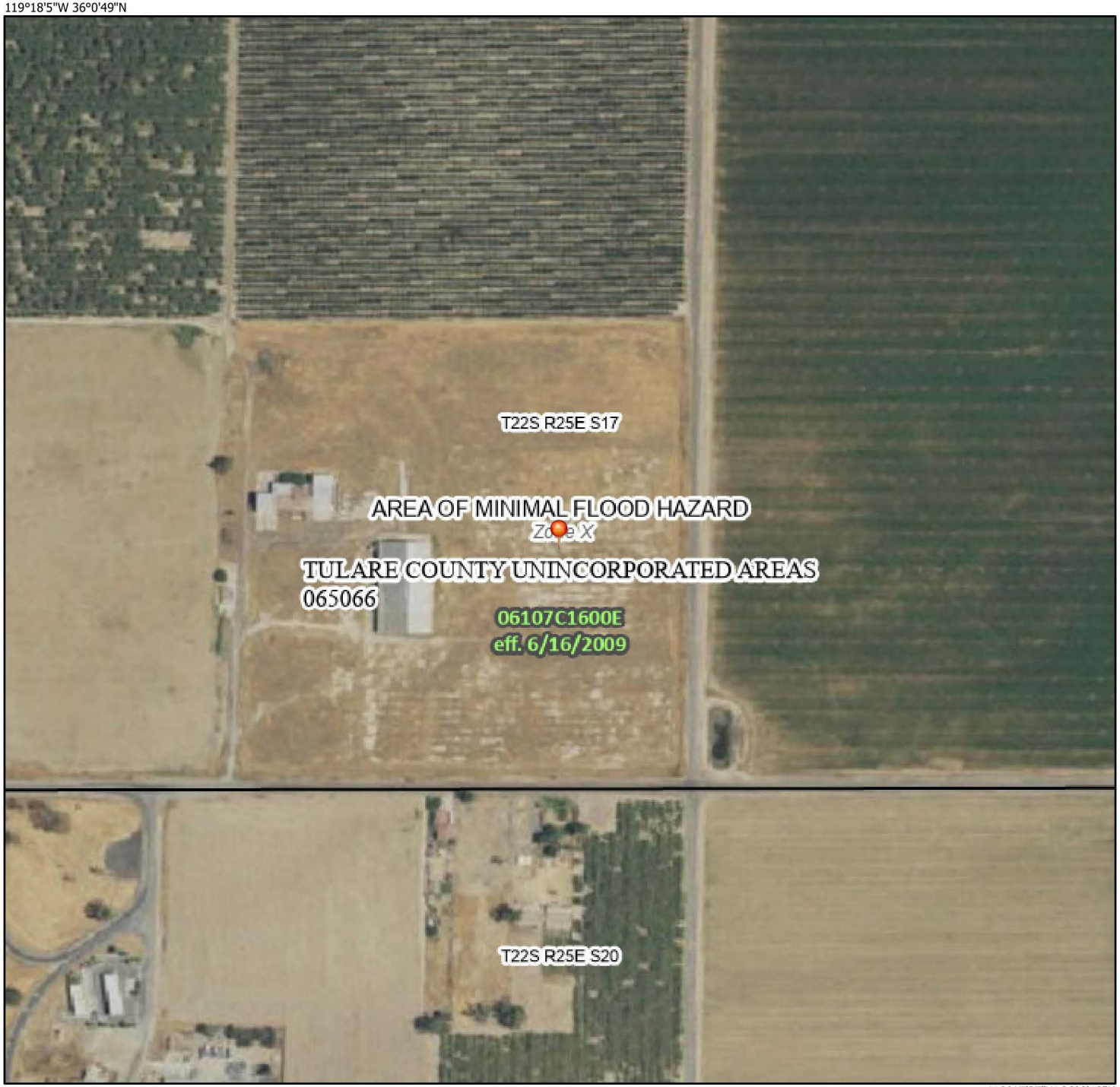
15. Structural Engineers Association of California Seismology Committee (2019), "Seismically Induced Lateral Earth Pressures on Retaining Structures and Basement Walls," August 2019, *The SEAOC Blue Book: Seismic Design Recommendations*, Structural Engineers Association of California, Sacramento, CA.

16. Wakabayashi, J. (2011). Mélanges of the Franciscan Complex, California: Diverse structural settings, evidence for sedimentary mixing, and their connection to subduction processes. *Geological Society of America Special Papers*, *480*, 117-141.

National Flood Hazard Layer FIRMette

FEMA

119°18'5"W 36°0'49"N



119°17'27"W 36°0'19"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/25/2025 at 9:54 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

ATTACHMENT F

Custom Soil Resource Report

DRAFT

United States Department of Agriculture

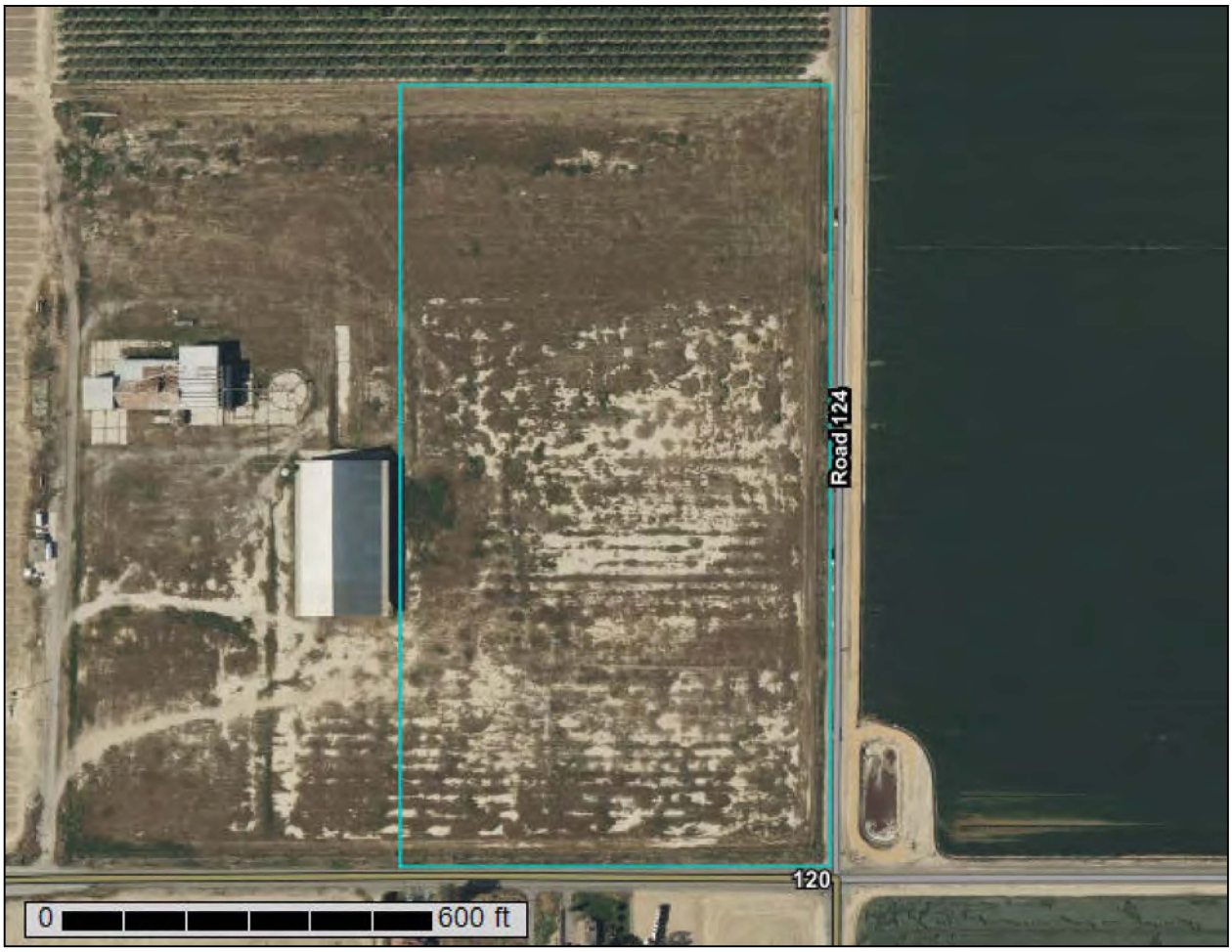
NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Tulare County, Western Part, California

CEQ 24-009



August 25, 2025

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

Preface.....2
How Soil Surveys Are Made.....5
Soil Map.....8
Soil Map.....9
Legend.....10
Map Unit Legend.....11
Map Unit Descriptions.....11
Tulare County, Western Part, California.....13
101—Akers-Akers, saline-Sodic, complex, 0 to 2 percent slopes.....13
137—Tagus loam, 0 to 2 percent slopes.....15
References.....17

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:2,250 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 30 60 120 180

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Tulare County, Western Part, California
Survey Area Data: Version 18, Aug 30, 2024

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

Date(s) aerial images were photographed: Mar 16, 2022—May 30, 2022

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
101	Akers-Akers, saline-Sodic, complex, 0 to 2 percent slopes	16.6	82.2%
137	Tagus loam, 0 to 2 percent slopes	3.6	17.8%
Totals for Area of Interest		**20.2**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the

development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Tulare County, Western Part, California

101—Akers-Akers, saline-Sodic, complex, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: hp6z
Elevation: 230 to 350 feet
Mean annual precipitation: 8 to 12 inches
Mean annual air temperature: 63 to 64 degrees F
Frost-free period: 225 to 300 days
Farmland classification: Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Akers and similar soils: 60 percent
Akers, saline-sodic, and similar soils: 25 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Akers

Setting

Landform: Fan remnants
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granitic rock sources

Typical profile

Ap - 0 to 16 inches: fine sandy loam
Bk - 16 to 60 inches: fine sandy loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Very rare
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Gypsum, maximum content: 2 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 12.0
Available water supply, 0 to 60 inches: High (about 9.7 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 4c
Hydrologic Soil Group: B
Ecological site: R017XY907CA - Aridic Alkali Desert
Hydric soil rating: No

Description of Akers, Saline-sodic

Setting

Landform: Fan remnants
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granitic rock sources

Typical profile

Ap - 0 to 15 inches: fine sandy loam
Bk - 15 to 60 inches: fine sandy loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Very rare
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Gypsum, maximum content: 2 percent
Maximum salinity: Slightly saline to moderately saline (4.0 to 8.0 mmhos/cm)
Sodium adsorption ratio, maximum: 30.0
Available water supply, 0 to 60 inches: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): 2s
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: C
Ecological site: R017XY907CA - Aridic Alkali Desert
Hydric soil rating: No

Minor Components

Tujunga

Percent of map unit: 3 percent
Landform: Flood plains
Ecological site: R017XY907CA - Aridic Alkali Desert
Hydric soil rating: No

Colpien

Percent of map unit: 3 percent
Landform: Fan remnants
Ecological site: R017XY907CA - Aridic Alkali Desert
Hydric soil rating: No

Yettem

Percent of map unit: 2 percent
Landform: Alluvial fans, flood plains
Ecological site: R017XY907CA - Aridic Alkali Desert
Hydric soil rating: No

Tagus
Percent of map unit: 2 percent
Landform: Fan remnants
Ecological site: R017XY907CA - Aridic Alkali Desert
Hydric soil rating: No

Grangeville
Percent of map unit: 2 percent
Landform: Alluvial fans, flood plains
Ecological site: R017XY907CA - Aridic Alkali Desert
Hydric soil rating: No

Hanford
Percent of map unit: 2 percent
Landform: Alluvial fans, flood plains
Ecological site: R017XY907CA - Aridic Alkali Desert
Hydric soil rating: No

Unnamed, ponded
Percent of map unit: 1 percent
Landform: Depressions
Ecological site: R017XY907CA - Aridic Alkali Desert
Hydric soil rating: Yes

137—Tagus loam, 0 to 2 percent slopes

Map Unit Setting
National map unit symbol: hp58
Elevation: 230 to 400 feet
Mean annual precipitation: 9 to 12 inches
Mean annual air temperature: 63 to 64 degrees F
Frost-free period: 250 to 300 days
Farmland classification: Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

Map Unit Composition
Tagus and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tagus

Setting
Landform: Fan remnants
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granitic rock sources

Typical profile

Ap - 0 to 17 inches: loam
Bk1 - 17 to 40 inches: loam
Bk2 - 40 to 63 inches: loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Very rare
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 12.0
Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 4c
Hydrologic Soil Group: B
Ecological site: R017XY904CA - Subirrigated Deep Alluvial Fans
Hydric soil rating: No

Minor Components

Tujunga

Percent of map unit: 5 percent
Landform: Flood plains
Hydric soil rating: No

Hanford

Percent of map unit: 5 percent
Landform: Alluvial fans, flood plains
Hydric soil rating: No

Grangeville

Percent of map unit: 3 percent
Landform: Alluvial fans, flood plains
Ecological site: R017XY907CA - Aridic Alkali Desert
Hydric soil rating: No

Colpien

Percent of map unit: 2 percent
Landform: Fan remnants
Ecological site: R017XY907CA - Aridic Alkali Desert
Hydric soil rating: No

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

ATTACHMENT G

Pixley Truck Stop Traffic Study

DRAFT

Project No: 01399-25-005

TRAFFIC STUDY

PIXLEY TRUCK STOP

AVENUE 120 & ROAD 124

Prepared for:

County of Tulare

August 2025

Prepared by:

RUETTGERS & SCHULER CIVIL ENGINEERS | PROVOST & PRITCHARD

1518 Mill Rock Way, Suite 100
Bakersfield, CA 93311

DRAFT

Ian J. Parks, RCE 58155

TABLE OF CONTENTS

Pg
INTRODUCTION 1
FIGURE 1: VICINITY MAP 2
FIGURE 2: LOCATION MAP 3
FIGURE 3: SITE PLAN 4
PROJECT TRIP GENERATION AND DESIGN HOUR VOLUMES 6
TABLE 1: PROJECT TRIP GENERATION 6
PROJECT TRIP DISTRIBUTION AND ASSIGNMENT 6
TABLE 2: PROJECT TRIP DISTRIBUTION 7
EXISTING AND FUTURE TRAFFIC 7
FIGURE 4: AM EXISTING PEAK HOUR TRAFFIC 8
FIGURE 5: PM EXISTING PEAK HOUR TRAFFIC 9
FIGURE 6: AM EXISTING + PROJECT PEAK HOUR TRAFFIC 10
FIGURE 7: PM EXISTING + PROJECT PEAK HOUR TRAFFIC 11
FIGURE 8: AM 2028 PEAK HOUR TRAFFIC 12
FIGURE 9: PM 2028 PEAK HOUR TRAFFIC 13
FIGURE 10: AM 2028 + PROJECT PEAK HOUR TRAFFIC 14
FIGURE 11: PM 2028 + PROJECT PEAK HOUR TRAFFIC 15
FIGURE 12: AM 2045 PEAK HOUR TRAFFIC 16
FIGURE 13: PM 2045 PEAK HOUR TRAFFIC 17
FIGURE 14: AM 2045 + PROJECT PEAK HOUR TRAFFIC 18
FIGURE 15: PM 2045 + PROJECT PEAK HOUR TRAFFIC 19
INTERSECTION ANALYSIS 20
TABLE 3a: PM INTERSECTION LEVEL OF SERVICE 21
TABLE 3b: AM INTERSECTION LEVEL OF SERVICE 21
QUEUE LENGTH ANALYSIS 22
TABLE 4a: PM QUEUE ANALYSIS 22
TABLE 4b: AM QUEUE ANALYSIS 23
IMPROVEMENTS & RECOMMENDATIONS 24
TABLE 5: INTERSECTION IMPROVEMENTS 24
VMT ANALYSIS 25
SUMMARY AND CONCLUSIONS 26
REFERENCES 27
APPENDIX 28

INTRODUCTION

The purpose of this study is to provide an evaluation of the potential traffic impacts of a retail development located at the northwest corner of Avenue 120 and Road 124 in Pixley, California.

A. Project Description

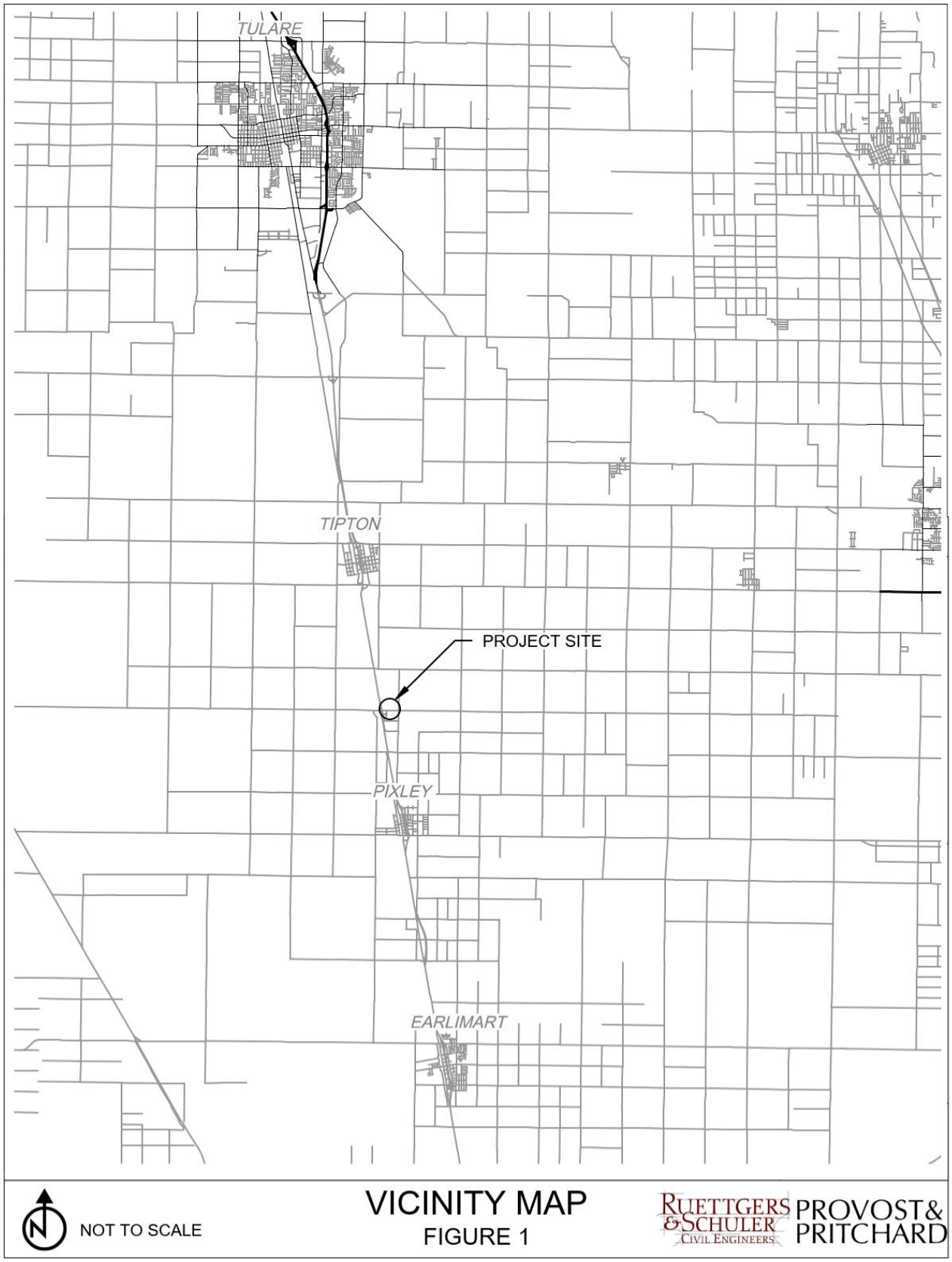
The proposed project consists of a 20,000 square foot convenience store, nine diesel fueling positions, four RV fueling positions, 16 automobile fueling positions, 19 electric automobile charging stations, 16 electric large vehicle charging stations, and a 3,100 square foot fast-food restaurant with drive-through. A vicinity map and location map are presented in Figures 1 and 2, respectively. A site plan is shown in Figure 3.

B. Existing Site Uses and Site Access

The project site is currently vacant. As currently planned, access to the proposed development would be provided along Avenue 120 and Road 124.

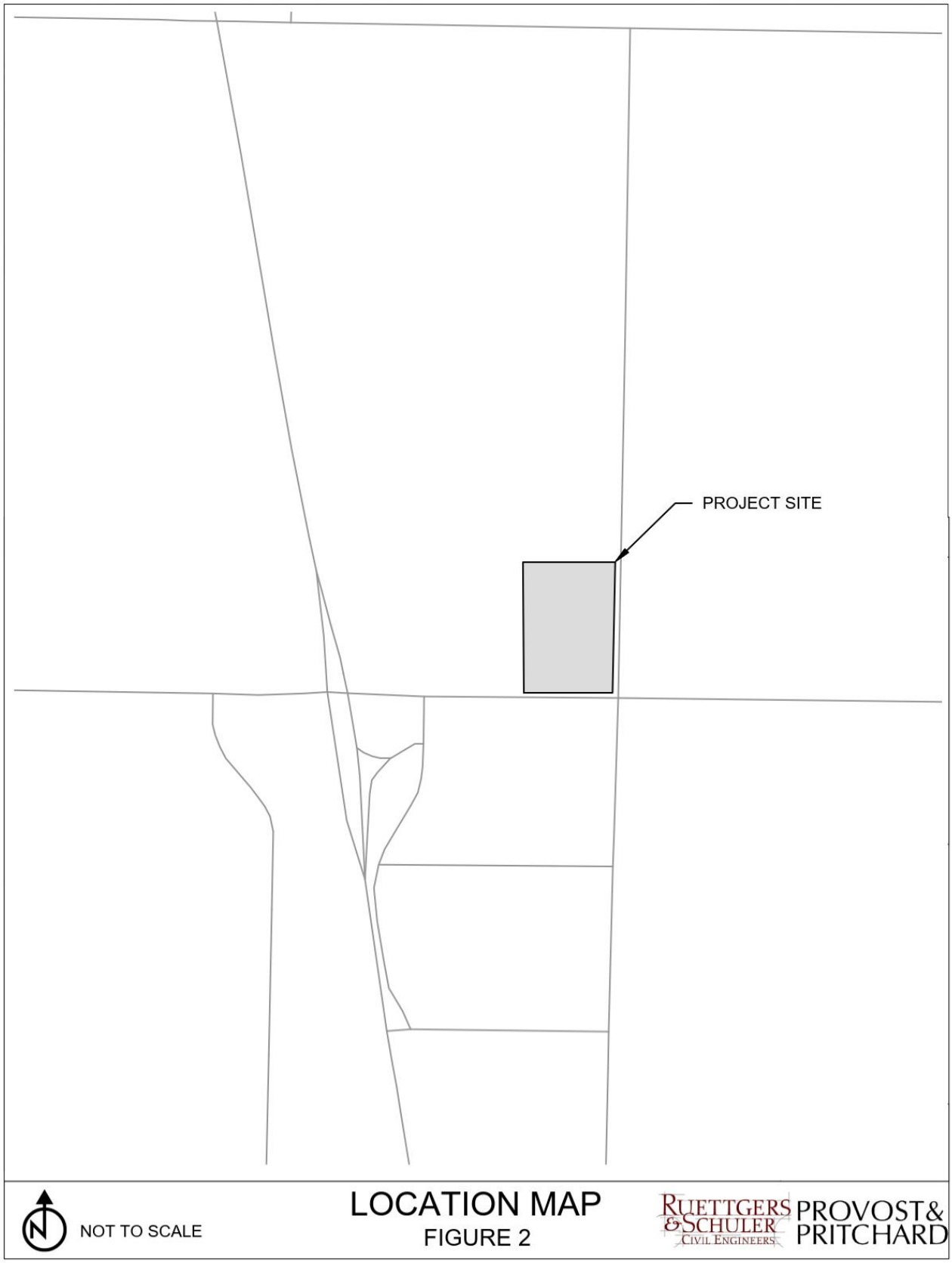
C. Existing Uses in Vicinity of the Site

The project site lies in the County of Tulare in which the surrounding land uses include commercial, agricultural, and industrial.



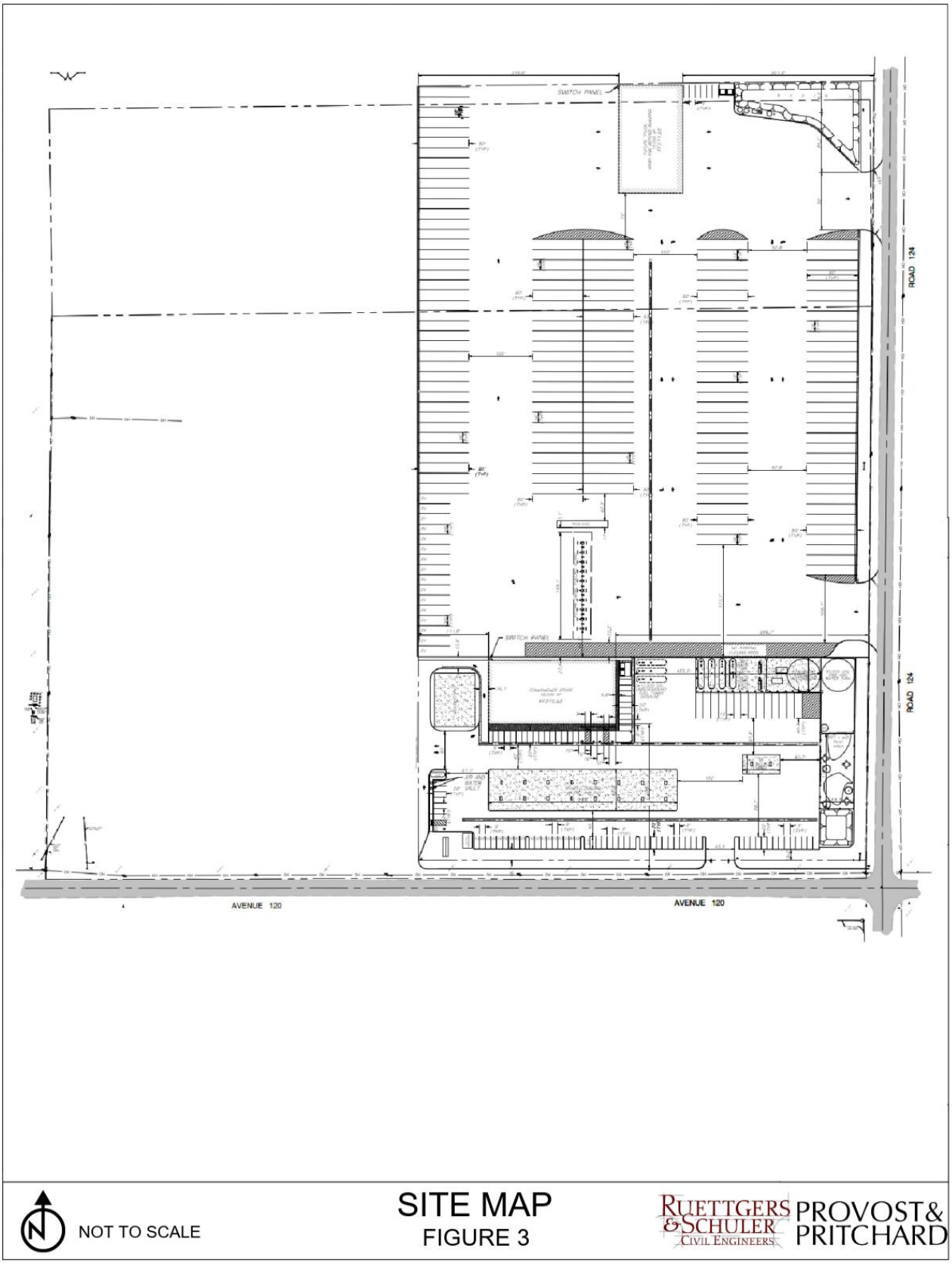
VICINITY MAP
FIGURE 1

RUETTGERS & SCHULER CIVIL ENGINEERS PROVOST& PRITCHARD



LOCATION MAP
FIGURE 2

RUETTGERS & SCHULER CIVIL ENGINEERS PROVOST& PRITCHARD



SITE MAP
FIGURE 3

RUETTGERS & SCHULER CIVIL ENGINEERS PROVOST& PRITCHARD

C. Roadway Descriptions

Avenue 120 is an east-west roadway. In the vicinity of the project, it exists as two-lane roadway and provides access to agricultural, commercial and industrial land uses.

Road 124 is a north-south roadway. In the vicinity of the project, it exists as a two-lane roadway and provides access to agricultural land uses

Drive 122B is a north-south roadway. In the vicinity of the project, it exists as a two-lane roadway and provides access to commercial and residential land uses.

SR 99 /Golden State Highway is a four-lane divided highway with graded shoulders and extends from Interstate 5 in Kern County to Interstate 5 in Sacramento County. The segment of State Route 99 in the vicinity of the project provides access to commercial, industrial, and agricultural land uses.

PROJECT TRIP GENERATION AND DESIGN HOUR VOLUMES

The project trip generation volumes shown in Table 1 were estimated using the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition. Trip rates, equations, and directional splits for ITE Land Use Codes 934 (Fast-Food Restaurant with Drive-Through Window), 945 (Convenience Store/Gas Station), and 950 (Truck Stop) was used to estimate project trips for weekday peak hour of adjacent street traffic.

Table 1
Project Trip Generation

General Information			Daily Trips		AM Peak Hour Trips			PM Peak Hour Trips		
ITE Code	Development Type	Variable	ADT RATE	ADT	Rate	In % Split/ Trips	Out % Split/ Trips	Rate	In % Split/ Trips	Out % Split/ Trips
934	Fast-Food Restaurant w/ Drive-Through Window	3.1 1000 sq ft GLA	1.92	1449	44.61	51% 71	49% 67	33.03	52% 53	48% 49
945	Convenience Store/Gas station (4-5.5k)	20 Vehicle Fueling Positions	257.13	5143	27.04	50% 270	50% 271	22.76	50% 228	50% 227
950	Truck Stop	9 Vehicle Fueling Positions	224	2016	eq	49% 65	51% 67	15.42	53% 74	47% 65
Total				6,592		341	338		281	276

PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

The distribution of project peak hour trips is shown in Table 2 represents the movement of traffic accessing the project site by direction. The project trip distribution was developed based on site location and travel patterns anticipated for the proposed land uses.

Table 2
Project Trip Distribution

Direction	Percent
North	30%
East	10%
South	35%
West	25%

Project peak hour trips were assigned to the study intersections as shown in Figure 4. Project trip assignment was developed based on trip generation, trip distribution and likely travel routes for traffic accessing the project site.

EXISTING AND FUTURE TRAFFIC

Weekday peak hour turning movements were counted at the following intersections in August 2024 and June 2025 (see Appendix for count data).

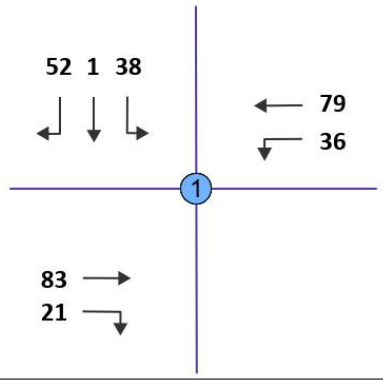
- State Route 99 & Avenue 120
- Avenue 120 & Drive 122B
- Avenue 120 & Road 124
- State Route 99 & Drive 122B

Existing (2025) peak hour volumes are shown in Figure 5 and the existing (2025) plus project peak hour volumes are shown in Figure 6.

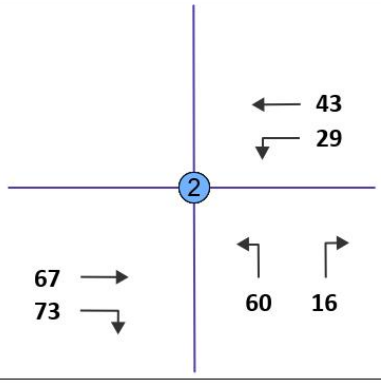
Annual growth rates ranging between 0.50% and 3.56% were applied to existing traffic volumes to estimate future peak hour traffic volumes for the years 2028 and 2045. These growth rates were estimated based on a review of existing and approved future developments in the vicinity of the project and TulareCAG traffic model data. Future peak hour volumes for the years 2028 and 2045, with and without project traffic, are shown in Figures 4 through 15.



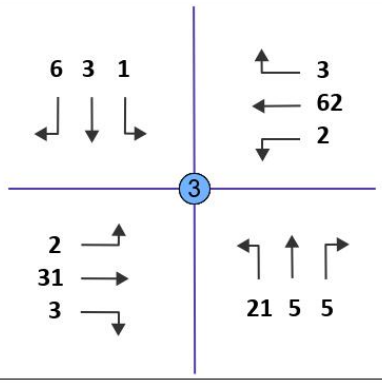
SR 99 SB & Avenue 120



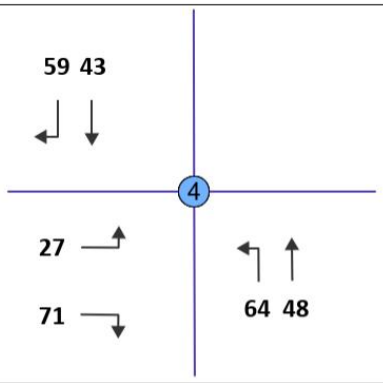
Avenue 120 & Drive 122B



Avenue 120 & Road 124



SR 99 NB & Drive 122B



Legend

X Intersection

0 250 500

Feet

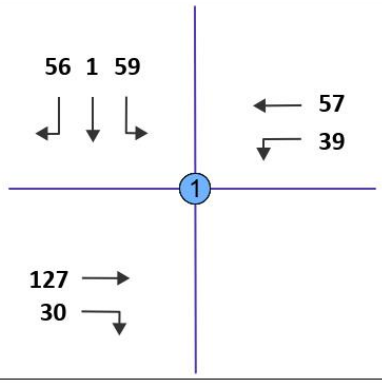
Figure 4 **AM Existing Peak Hour Traffic Volume**

Pixley Truck Stop

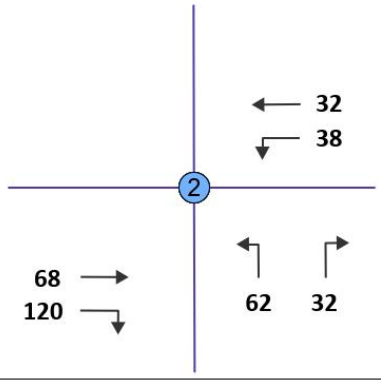
1/5/2022 G:\Tulare_County of-1399\139925005-Pixley Truck Stop\400 GIS\Map\TS_Maps_PixleyTruckStop_Portrait.aprx



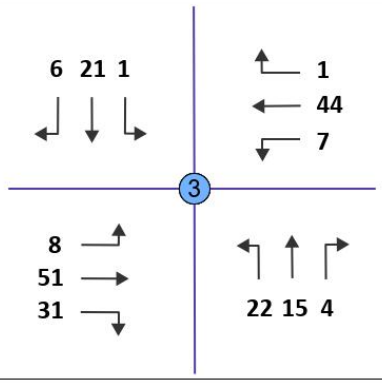
SR 99 SB & Avenue 120



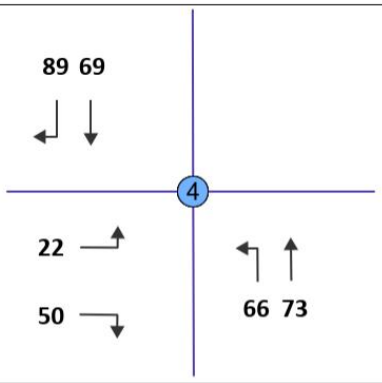
Avenue 120 & Drive 122B



Avenue 120 & Road 124



SR 99 NB & Drive 122B



Legend

X Intersection

0 250 500

Feet

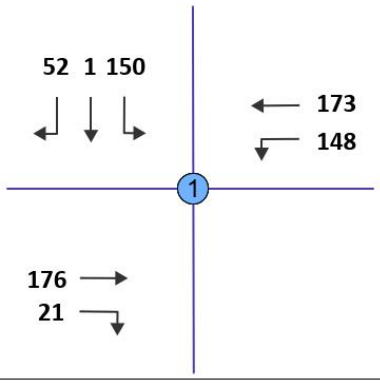
Figure 5 **PM Existing Peak Hour Traffic Volume**

Pixley Truck Stop

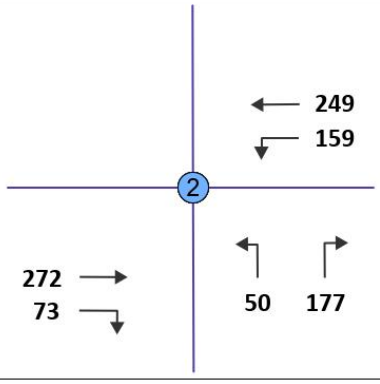
1/5/2022 G:\Tulare_County of-1399\139925005-Pixley Truck Stop\400 GIS\Map\TS_Maps_PixleyTruckStop_Portrait.aprx



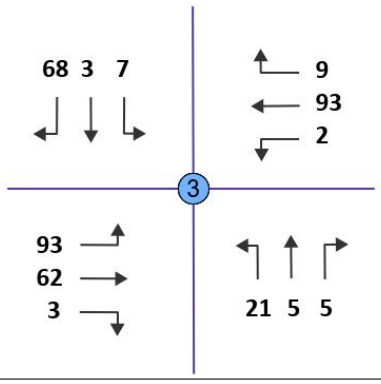
SR 99 SB & Avenue 120



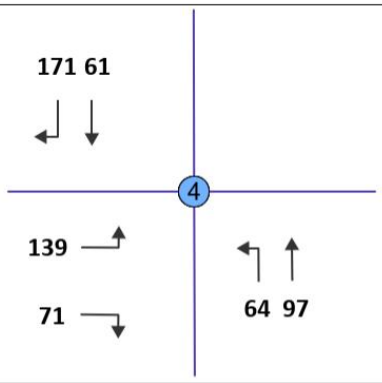
Avenue 120 & Drive 122B



Avenue 120 & Road 124



SR 99 NB & Drive 122B



Legend

X Intersection

0 250 500

Feet

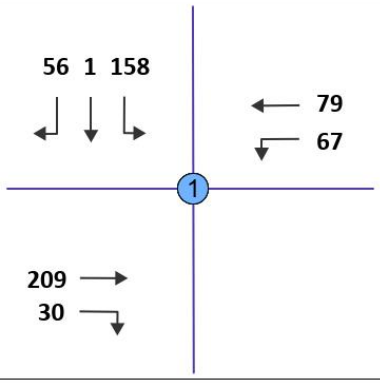
Figure 6

AM Existing + Project
Peak Hour Traffic Volume
Pixley Truck Stop

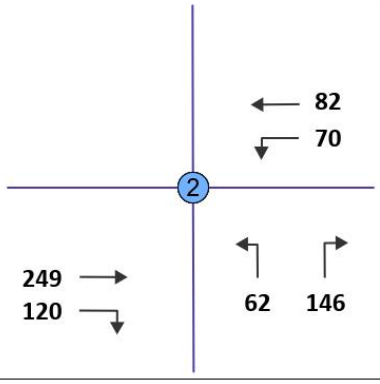
1/5/2022 G:\Tulare_County of-1399\139925005-Pixley Truck Stop\400 GIS\Map\TS_Maps_PixleyTruckStop_Portrait.aprx



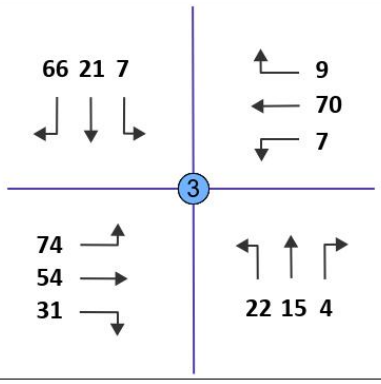
SR 99 SB & Avenue 120



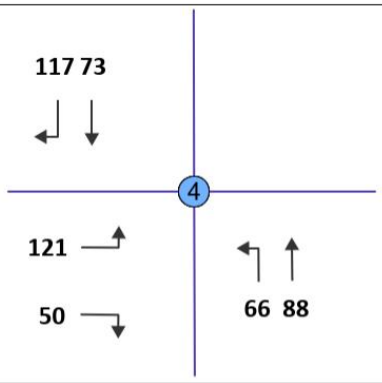
Avenue 120 & Drive 122B



Avenue 120 & Road 124



SR 99 NB & Drive 122B



Legend
X Intersection

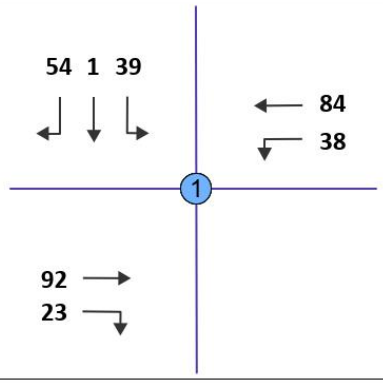
0 250 500
Feet

Figure 7
PM Existing + Project
Peak Hour Traffic Volume
Pixley Truck Stop

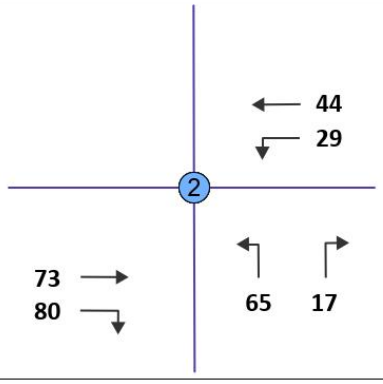
1/5/2022 G:\Tulare_County of-1399\139925005-Pixley Truck Stop\400 GIS\Map\TS_Maps_PixleyTruckStop_Portrait.aprx



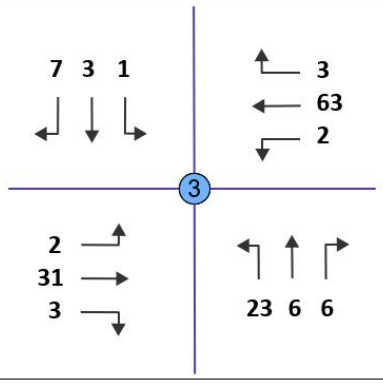
SR 99 SB & Avenue 120



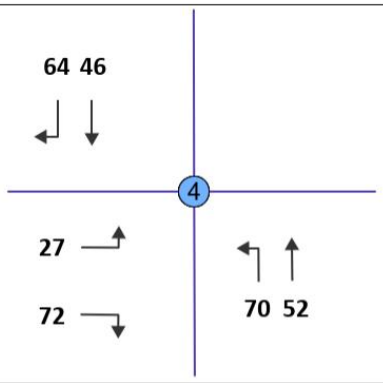
Avenue 120 & Drive 122B



Avenue 120 & Road 124



SR 99 NB & Drive 122B



Legend

X Intersection



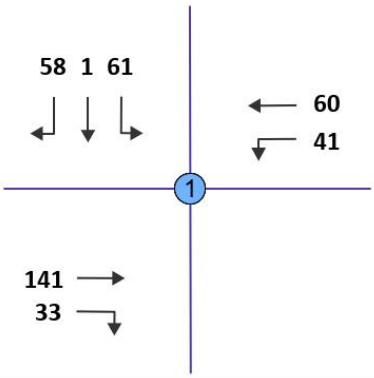
Figure 8

AM 2028
Peak Hour Traffic Volume
Pixley Truck Stop

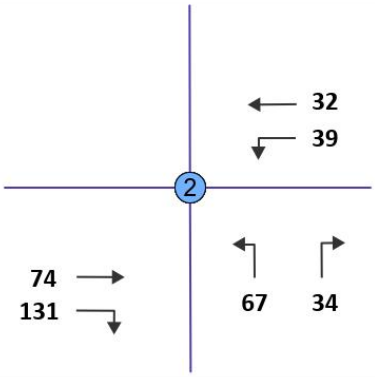
1/5/2022 G:\Tulare_County of-1399\139925005-Pixley Truck Stop\400 GIS\Map\TS_Maps_PixleyTruckStop_Portrait.aprx



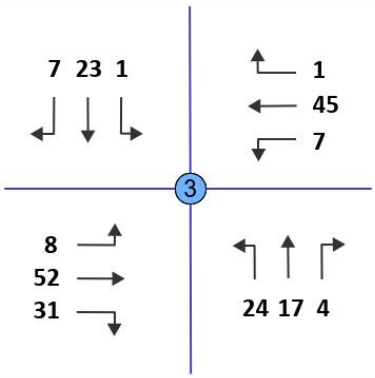
SR 99 SB & Avenue 120



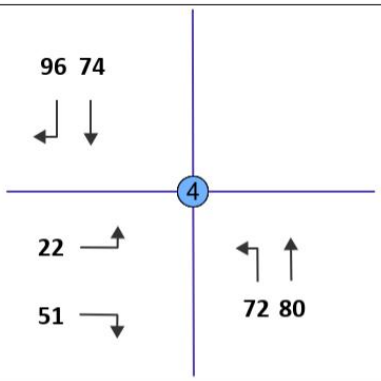
Avenue 120 & Drive 122B



Avenue 120 & Road 124



SR 99 NB & Drive 122B



Legend

X Intersection

0 250 500

Feet

Figure 9

PM 2028

Peak Hour Traffic Volume

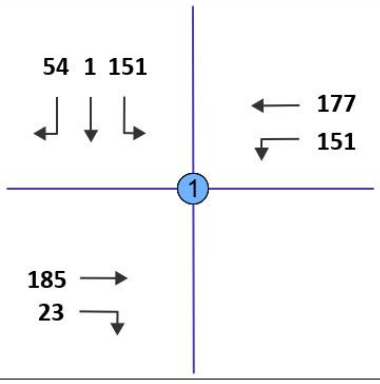
Pixley Truck Stop

RUETTGERS & SCHULER CIVIL ENGINEERS PROVOST& PRITCHARD

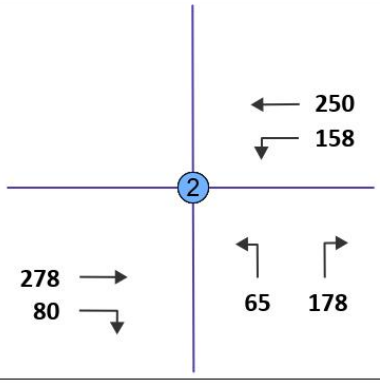
1/5/2022 G:\Tulare_County of-1399\139925005-Pixley Truck Stop\400 GIS\Map\TS_Maps_PixleyTruckStop_Portrait.aprx



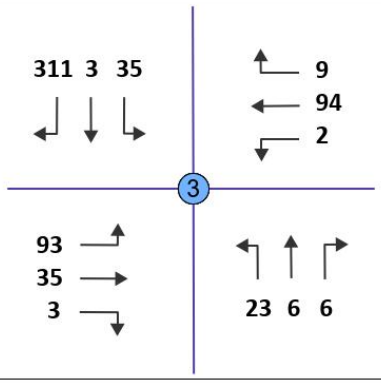
SR 99 SB & Avenue 120



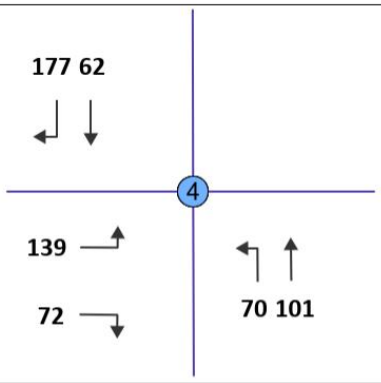
Avenue 120 & Drive 122B



Avenue 120 & Road 124



SR 99 NB & Drive 122B



Legend

X Intersection

0 250 500

Feet

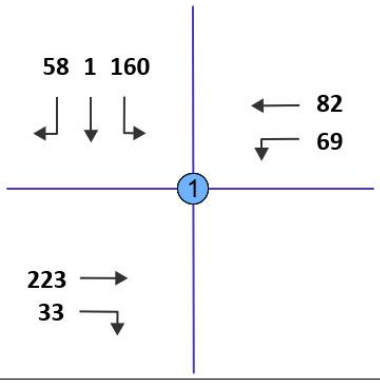
Figure 10 **AM 2028 + Project Peak Hour Traffic Volume**

Pixley Truck Stop

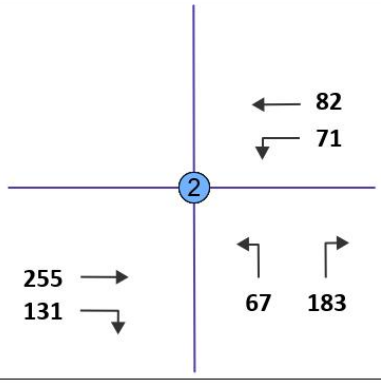
8/14/2025 G:\Tulare_County of-1399\139925005-Pixley Truck Stop\400 GIS\Map\TS_Maps_PixleyTruckStop_Portrait.aprx



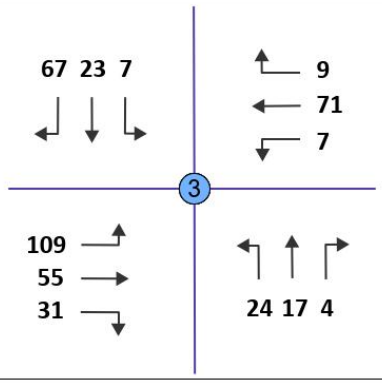
SR 99 SB & Avenue 120



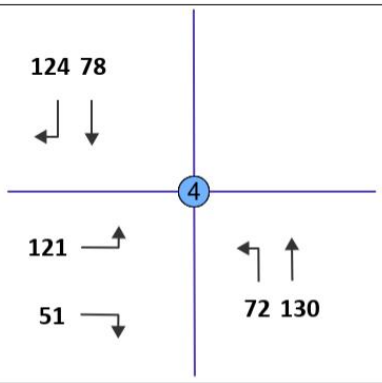
Avenue 120 & Drive 122B



Avenue 120 & Road 124



SR 99 NB & Drive 122B



Legend

X Intersection

0 250 500

Feet

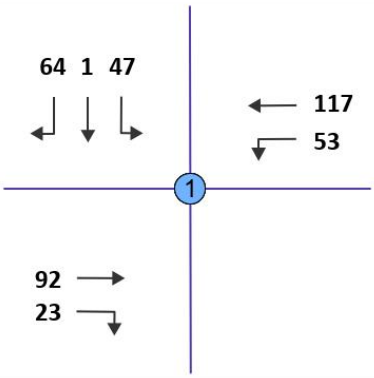
Figure 11

PM 2028 + Project
Peak Hour Traffic Volume
Pixley Truck Stop

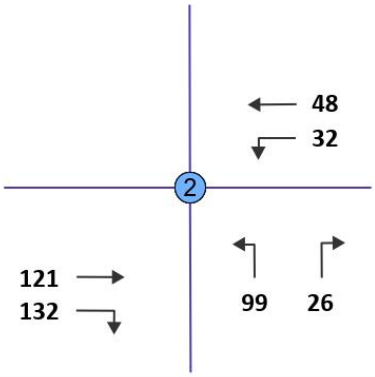
1/5/2022 G:\Tulare_County of-1399\139925005-Pixley Truck Stop\400 GIS\Map\TS_Maps_PixleyTruckStop_Portrait.aprx



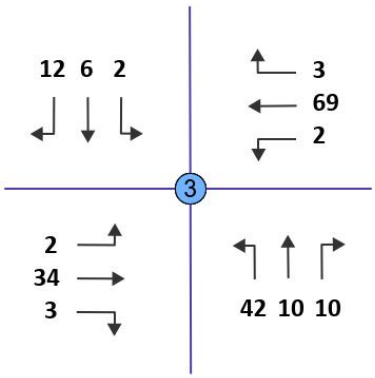
SR 99 SB & Avenue 120



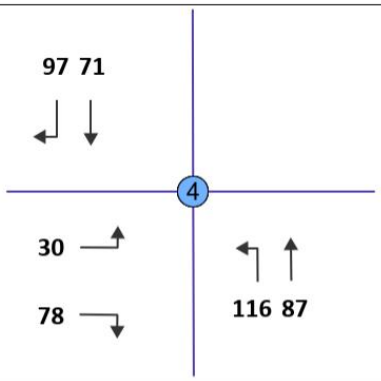
Avenue 120 & Drive 122B



Avenue 120 & Road 124



SR 99 NB & Drive 122B



Legend

X Intersection

0 250 500

Feet

Figure 12

AM 2045

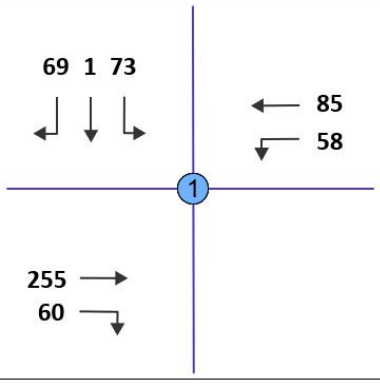
Peak Hour Traffic Volume

Pixley Truck Stop

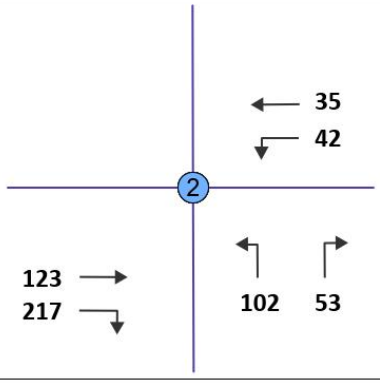
1/5/2022 G:\Tulare_County of-1399\139925005-Pixley Truck Stop\400 GIS\Map\TS_Maps_PixleyTruckStop_Portrait.aprx



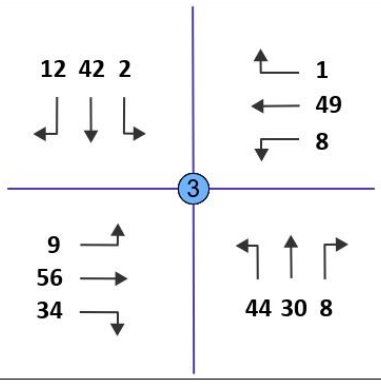
SR 99 SB & Avenue 120



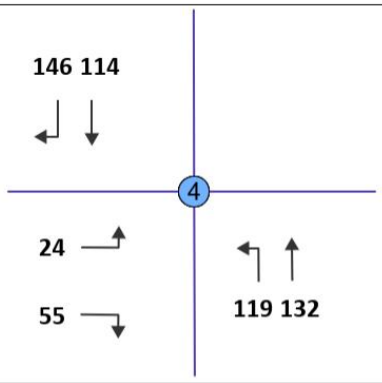
Avenue 120 & Drive 122B



Avenue 120 & Road 124



SR 99 NB & Drive 122B



Legend

X Intersection

0 250 500

Feet

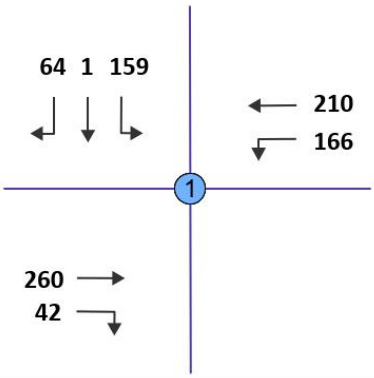
Figure 13 PM 2045 Peak Hour Traffic Volume

Pixley Truck Stop

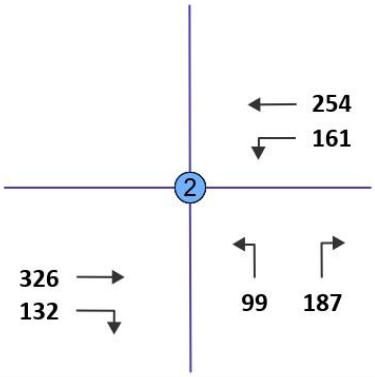
1/5/2022 G:\Tulare_County of-1399\139925005-Pixley Truck Stop\400 GIS\Map\TS_Maps_PixleyTruckStop_Portrait.aprx



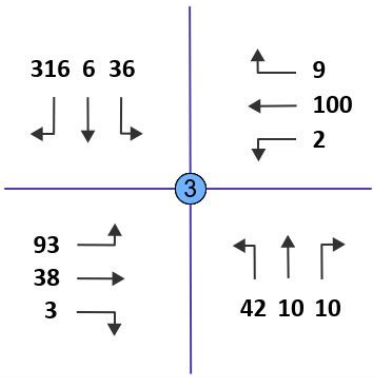
SR 99 SB & Avenue 120



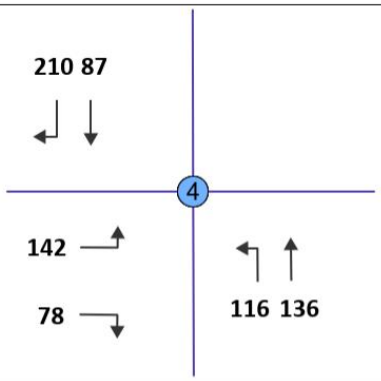
Avenue 120 & Drive 122B



Avenue 120 & Road 124



SR 99 NB & Drive 122B



Legend

X Intersection

0 250 500

Feet

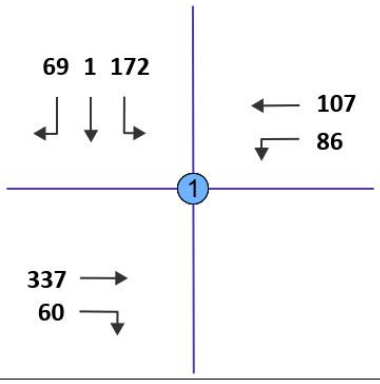
Figure 14

AM 2045 + Project
Peak Hour Traffic Volume
Pixley Truck Stop

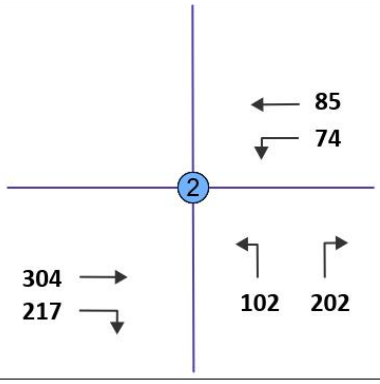
1/5/2022 G:\Tulare_County of-1399\139925005-Pixley Truck Stop\400 GIS\Map\TS_Maps_PixleyTruckStop_Portrait.aprx



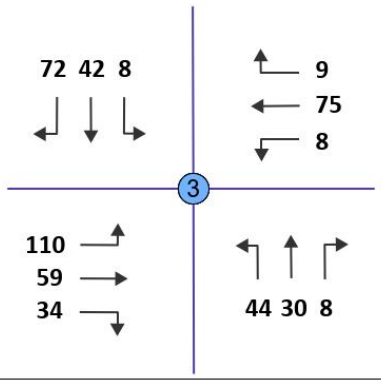
SR 99 SB & Avenue 120



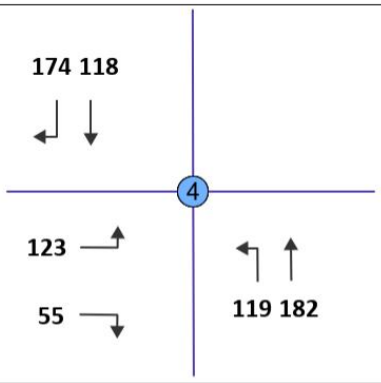
Avenue 120 & Drive 122B



Avenue 120 & Road 124



SR 99 NB & Drive 122B



Legend
X Intersection

0 250 500
Feet

Figure 15 **PM 2045 + Project Peak Hour Traffic Volume**
Pixley Truck Stop

8/14/2025 G:\Tulare_County of-1399\139925005-Pixley Truck Stop\400 GIS\Map\TS_Maps_PixleyTruckStop_Portrait.aprx

INTERSECTION ANALYSIS

A capacity analysis of the study intersections was conducted using Synchro software from Trafficware. This software utilizes the capacity analysis methodology in the Transportation Research Board's Highway Capacity Manual 7th Edition. The analysis was performed for each of the following traffic scenarios:

- Existing (2025)
- Existing (2025) + Project
- Opening Year (2028)
- Opening Year (2028) + Project
- Future (2045)
- Future (2045) + Project

Level of service (LOS) criteria for unsignalized and signalized intersections, as defined in HCM 7th Edition, are presented in the tables below. The Tulare County's General Plan's Circulation Element designates LOS D as the minimum acceptable intersection peak hour level of service.

LEVEL OF SERVICE CRITERIA
UNSIGNALIZED INTERSECTION

Average Control Delay (sec/veh)	Level of Service	Expected Delay to Minor Street Traffic
≤ 10	A	Little or no delay
> 10 and ≤ 15	B	Short traffic delays
> 15 and ≤ 25	C	Average traffic delays
> 25 and ≤ 35	D	Long traffic delays
> 35 and ≤ 50	E	Very long traffic delays
> 50	F	Extreme delays

LEVEL OF SERVICE CRITERIA
SIGNALIZED INTERSECTIONS

Volume/Capacity	Control Delay (sec/veh)	Level of Service
< 0.60	≤ 10	A
0.61 - 0.70	> 10 and ≤ 20	B
0.71 - 0.80	> 20 and ≤ 35	C
0.81 - 0.90	> 35 and ≤ 55	D
0.91 - 1.00	> 55 and ≤ 80	E
> 1.0	> 80	F

Peak hour level of service for the study intersections is presented in Tables 3a and 3b. Intersection delays are shown for all intersections that operate below LOS D.

Table 3a
PM Intersection Level of Service

#	Intersection	Control Type	2025	2025+ Project	2028	2028+ Project	2045	2045+ Project	2045+ Project w/Improvements[1]
1	SR 99 SB Ramps & Ave 120	SB	B	B	B	C	B	C	A[2]
2	Drive 122B & Ave 120	NB	B	B	B	C	B	C	B[2]
3	Road 124 & Ave 120	NB SB	A A	B B	B A	B B	B B	B B	-
4	Drive 122B & 99 NB Ramps	EB	A	B	A	B	B	C	-

[1]See Table 7 for improvements.

[2]Improvements required due to AM Peak Hour.

Table 3b
AM Intersection Level of Service

#	Intersection	Control Type	2025	2025+ Project	2028	2028+ Project	2045	2045+ Project	2045+ Project w/Improvements[1]
1	SR 99 SB Ramps & Ave 120	SB	A	C	A	C	B	E (40.88)	A
2	Drive 122B & Ave 120	NB	B	C	B	C	B	F (52.21)	B
3	Road 124 & Ave 120	NB SB	A A	B A	A A	B B	A A	C B	-
4	Drive 122B & 99 NB Ramps	EB	A	B	A	B	B	C	-

[1]See Table 7 for improvements.

QUEUE LENGTH ANALYSIS

A queue length analysis was conducted dedicated turn movements within the study area to evaluate the adequacy of the existing storage lengths. Tables 6a and 6b below show the existing storage lengths, as well as the 95th percentile queue length determined for each traffic scenario analyzed.

Table 4a
PM Queue Analysis

Intersection	SR 99 & Ave 120	SR 99 & Drive 122B
Movement	SB LTR	EB LR
Storage Capacity	1000	1000
2025	58	48
2025+Project	84	69
2028	47	45
2028+Project	84	69
2045	71	50
2045+Project	122	97
2045+Project w/ Mitigation	98	97

Table 4b
AM Queue Analysis

Intersection	SR 99 & Ave 120	SR 99 & Drive 122B
Movement	SB LTR	EB LR
Storage Capacity	1000	1000
2025	66	56
2025+Project	94	56
2028	66	53
2028+Project	100	91
2045	63	47
2045+Project	134	107
2045+Project w/ Mitigation	125	121

As shown in the tables, the storage lengths are adequate for existing, 2028 and 2045 queue lengths both prior to, and with the addition of project traffic for all state route intersections.

IMPROVEMENTS & RECOMMENDATIONS

Upon review of intersection level of service, it was determined that two intersections required improvements.

Intersection improvements needed in the year 2045 to maintain or improve the operational level of service of the street system in the vicinity of the project are presented in Table 7.

Table 5
Intersection Improvements

#	Intersection	Improvements Required by 2045	Project Percent Share
1	SR 99 & Ave 120	Signal	60.85%
2	Ave 120 & Drive 122B	Signal	72.86%

VMT ANALYSIS

An analysis of project vehicle miles traveled (VMT) was conducted based on metrics consistent with SB 743 requirements for evaluating transportation impacts within the California Environmental Quality Act (CEQA).

Background

Guidelines for assessing project VMT as part of a transportation impact analysis under CEQA are contained in the Technical Advisory on Evaluating Transportation Impacts in CEQA, dated December 2018, from the State of California, Office of Planning and Research (OPR TA). The advisory contains recommendations regarding VMT assessment, significance thresholds and mitigation measures. Under CEQA, lead agencies have the authority to establish their own VMT significance thresholds and analysis methodologies or rely on thresholds and methodologies recommended by other agencies, provided such guidelines are supported by substantial evidence. The County of Tulare SB 743 Guidelines were used for assessing project VMT.

Project VMT

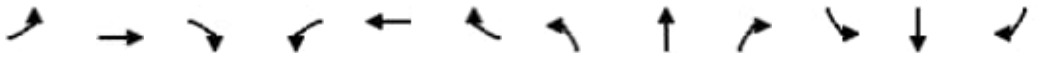
The County of Tulare SB 743 Guidelines includes screening criteria, which if met, indicates that further VMT analysis is unnecessary. Pursuant to the guidelines, most retail projects within the unincorporated county could be considered as "locally-serving" and could be screened out of a detailed VMT analysis.

This project is consistent with the guidelines and can be considered as "locally-serving." Therefore, this project's traffic would result in a less-than-significant transportation impact and can be exempted from a detailed VMT analysis.

REFERENCES

1. Annual Traffic Census, TCAG
2. County of Tulare SB 743 Guidelines, June 8, 2020
3. Tulare County General Plan, August 2012
4. Highway Capacity Manual, 7th Edition, Transportation Research Board
5. California Manual on Uniform Traffic Control Devices for Streets and Highways, 2014 Edition, Federal Highway Administration (FHA)
6. Trip Generation, 11th Edition, Institute of Transportation Engineers (ITE)

APPENDIX



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	83	21	36	79	0	0	0	0	38	1	52
Future Volume (vph)	0	83	21	36	79	0	0	0	0	38	1	52
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973									0.922	
Flt Protected					0.985						0.980	
Satd. Flow (prot)	0	1812	0	0	1835	0	0	0	0	0	1683	0
Flt Permitted					0.985						0.980	
Satd. Flow (perm)	0	1812	0	0	1835	0	0	0	0	0	1683	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		410			737			373			311	
Travel Time (s)		9.3			16.8			8.5			7.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	90	23	39	86	0	0	0	0	41	1	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	113	0	0	125	0	0	0	0	0	99	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 24.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	83	21	36	79	0	0	0	0	38	1	52
Future Vol, veh/h	0	83	21	36	79	0	0	0	0	38	1	52
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	90	23	39	86	0	0	0	0	41	1	57

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	113	0	0	254	277	86
Stage 1	-	-	-	-	-	-	164	164	-
Stage 2	-	-	-	-	-	-	90	113	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1476	-	0	734	631	973
Stage 1	0	-	-	-	-	0	865	762	-
Stage 2	0	-	-	-	-	0	933	802	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1476	-	-	714	0	973
Mov Cap-2 Maneuver	-	-	-	-	-	-	714	0	-
Stage 1	-	-	-	-	-	-	865	0	-
Stage 2	-	-	-	-	-	-	907	0	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	2.35	9.83
HCM LOS			A

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	563	-	844
HCM Lane V/C Ratio	-	-	0.027	-	0.117
HCM Ctrl Dly (s/v)	-	-	7.5	0	9.8
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	-	0.4



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	67	73	29	43	60	16
Future Volume (vph)	67	73	29	43	60	16
Ideal Flow (vphpl)	1900	1750	1750	1900	1750	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.930				0.972	
Flt Protected				0.980	0.962	
Satd. Flow (prot)	1732	0	0	1825	1604	0
Flt Permitted				0.980	0.962	
Satd. Flow (perm)	1732	0	0	1825	1604	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	737			1529	349	
Travel Time (s)	16.8			34.8	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	73	79	32	47	65	17
Shared Lane Traffic (%)						
Lane Group Flow (vph)	152	0	0	79	82	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.11	1.11	1.00	1.11	1.11
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.5%		ICU Level of Service A	
Analysis Period (min) 15			

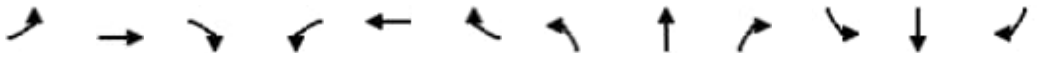
Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	67	73	29	43	60	16
Future Vol, veh/h	67	73	29	43	60	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	73	79	32	47	65	17

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	152	0	222	113
Stage 1	-	-	-	-	113	-
Stage 2	-	-	-	-	110	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1429	-	766	940
Stage 1	-	-	-	-	912	-
Stage 2	-	-	-	-	915	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1429	-	749	940
Mov Cap-2 Maneuver	-	-	-	-	749	-
Stage 1	-	-	-	-	912	-
Stage 2	-	-	-	-	894	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.05	10.15
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	782	-	-	725	-
HCM Lane V/C Ratio	0.106	-	-	0.022	-
HCM Ctrl Dly (s/v)	10.1	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	31	3	2	62	3	21	5	5	1	3	6
Future Volume (vph)	2	31	3	2	62	3	21	5	5	1	3	6
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.994			0.980			0.914	
Flt Protected		0.997			0.999			0.966			0.995	
Satd. Flow (prot)	0	1839	0	0	1850	0	0	1763	0	0	1694	0
Flt Permitted		0.997			0.999			0.966			0.995	
Satd. Flow (perm)	0	1839	0	0	1850	0	0	1763	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1529			1048			528			215	
Travel Time (s)		34.8			23.8			12.0			4.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	34	3	2	67	3	23	5	5	1	3	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	39	0	0	72	0	0	33	0	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 18.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	31	3	2	62	3	21	5	5	1	3	6
Future Vol, veh/h	2	31	3	2	62	3	21	5	5	1	3	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	34	3	2	67	3	23	5	5	1	3	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	71	0	0	37	0	0	113	115	35	114	115	69
Stage 1	-	-	-	-	-	-	40	40	-	73	73	-
Stage 2	-	-	-	-	-	-	73	75	-	41	41	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1530	-	-	1574	-	-	864	776	1037	863	776	994
Stage 1	-	-	-	-	-	-	975	862	-	936	834	-
Stage 2	-	-	-	-	-	-	936	833	-	974	861	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1530	-	-	1574	-	-	853	773	1037	850	773	994
Mov Cap-2 Maneuver	-	-	-	-	-	-	853	773	-	850	773	-
Stage 1	-	-	-	-	-	-	974	861	-	935	833	-
Stage 2	-	-	-	-	-	-	925	831	-	961	859	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.41	0.22	9.34	9.04
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	863	98	-	-	53	-	-	902
HCM Lane V/C Ratio	0.039	0.001	-	-	0.001	-	-	0.012
HCM Ctrl Dly (s/v)	9.3	7.4	0	-	7.3	0	-	9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	27	71	64	48	43	59
Future Volume (vph)	27	71	64	48	43	59
Ideal Flow (vphpl)	1750	1750	1750	1900	1900	1750
Storage Length (ft)	50	50	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.922	
Flt Protected	0.950			0.972		
Satd. Flow (prot)	1630	1458	0	1811	1717	0
Flt Permitted	0.950			0.972		
Satd. Flow (perm)	1630	1458	0	1811	1717	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	192			350	349	
Travel Time (s)	4.4			8.0	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	77	70	52	47	64
Shared Lane Traffic (%)						
Lane Group Flow (vph)	29	77	0	122	111	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.11	1.11	1.11	1.00	1.00	1.11
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 22.7%		ICU Level of Service A	
Analysis Period (min) 15			

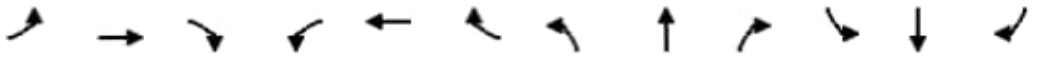
Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	27	71	64	48	43	59
Future Vol, veh/h	27	71	64	48	43	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	77	70	52	47	64

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	270	79	111	0	-	0
Stage 1	79	-	-	-	-	-
Stage 2	191	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	719	982	1479	-	-	-
Stage 1	944	-	-	-	-	-
Stage 2	841	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	684	982	1479	-	-	-
Mov Cap-2 Maneuver	684	-	-	-	-	-
Stage 1	899	-	-	-	-	-
Stage 2	841	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	9.4	4.32	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1029	-	684	982	-	-
HCM Lane V/C Ratio	0.047	-	0.043	0.079	-	-
HCM Ctrl Dly (s/v)	7.6	0	10.5	9	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0.3	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	127	30	39	57	0	0	0	0	59	1	56
Future Volume (vph)	0	127	30	39	57	0	0	0	0	59	1	56
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.974									0.935	
Flt Protected					0.980						0.975	
Satd. Flow (prot)	0	1814	0	0	1825	0	0	0	0	0	1698	0
Flt Permitted					0.980						0.975	
Satd. Flow (perm)	0	1814	0	0	1825	0	0	0	0	0	1698	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		410			737			373			311	
Travel Time (s)		9.3			16.8			8.5			7.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	138	33	42	62	0	0	0	0	64	1	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	171	0	0	104	0	0	0	0	0	126	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 30.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	127	30	39	57	0	0	0	0	59	1	56
Future Vol, veh/h	0	127	30	39	57	0	0	0	0	59	1	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	138	33	42	62	0	0	0	0	64	1	61

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	171	0	0	285	317	62
Stage 1	-	-	-	-	-	-	147	147	-
Stage 2	-	-	-	-	-	-	138	171	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1407	-	0	705	599	1003
Stage 1	0	-	-	-	-	0	881	776	-
Stage 2	0	-	-	-	-	0	889	757	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1407	-	-	683	0	1003
Mov Cap-2 Maneuver	-	-	-	-	-	-	683	0	-
Stage 1	-	-	-	-	-	-	881	0	-
Stage 2	-	-	-	-	-	-	861	0	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	3.1	10.27
HCM LOS			B

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	731	-	809
HCM Lane V/C Ratio	-	-	0.03	-	0.156
HCM Ctrl Dly (s/v)	-	-	7.6	0	10.3
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0.1	-	0.6



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	68	120	38	32	62	32
Future Volume (vph)	68	120	38	32	62	32
Ideal Flow (vphpl)	1900	1750	1750	1900	1750	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.914				0.954	
Flt Protected				0.974	0.968	
Satd. Flow (prot)	1703	0	0	1814	1584	0
Flt Permitted				0.974	0.968	
Satd. Flow (perm)	1703	0	0	1814	1584	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	737			1529	349	
Travel Time (s)	16.8			34.8	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	74	130	41	35	67	35
Shared Lane Traffic (%)						
Lane Group Flow (vph)	204	0	0	76	102	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.11	1.11	1.00	1.11	1.11
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 30.6%		ICU Level of Service A	
Analysis Period (min) 15			

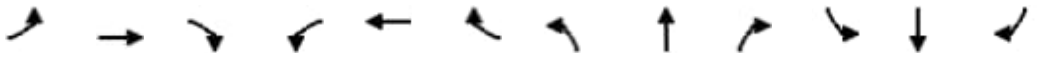
Intersection	
Int Delay, s/veh	3.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	68	120	38	32	62	32
Future Vol, veh/h	68	120	38	32	62	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	74	130	41	35	67	35

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	204	0	257	139
Stage 1	-	-	-	-	139	-
Stage 2	-	-	-	-	117	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1367	-	732	909
Stage 1	-	-	-	-	888	-
Stage 2	-	-	-	-	908	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1367	-	710	909
Mov Cap-2 Maneuver	-	-	-	-	710	-
Stage 1	-	-	-	-	888	-
Stage 2	-	-	-	-	880	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	4.19	10.41
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	767	-	-	977	-
HCM Lane V/C Ratio	0.133	-	-	0.03	-
HCM Ctrl Dly (s/v)	10.4	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	51	31	7	44	1	22	15	4	1	21	6
Future Volume (vph)	8	51	31	7	44	1	22	15	4	1	21	6
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.953			0.998			0.988			0.970	
Flt Protected		0.995			0.993			0.973			0.998	
Satd. Flow (prot)	0	1766	0	0	1846	0	0	1791	0	0	1803	0
Flt Permitted		0.995			0.993			0.973			0.998	
Satd. Flow (perm)	0	1766	0	0	1846	0	0	1791	0	0	1803	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1529			1048			528			215	
Travel Time (s)		34.8			23.8			12.0			4.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	55	34	8	48	1	24	16	4	1	23	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	98	0	0	57	0	0	44	0	0	31	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 21.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	51	31	7	44	1	22	15	4	1	21	6
Future Vol, veh/h	8	51	31	7	44	1	22	15	4	1	21	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	55	34	8	48	1	24	16	4	1	23	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	49	0	0	89	0	0	164	154	72	145	170	48
Stage 1	-	-	-	-	-	-	90	90	-	64	64	-
Stage 2	-	-	-	-	-	-	74	64	-	81	107	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1558	-	-	1506	-	-	801	738	990	824	723	1020
Stage 1	-	-	-	-	-	-	918	821	-	947	842	-
Stage 2	-	-	-	-	-	-	935	841	-	927	807	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1558	-	-	1506	-	-	762	730	990	794	715	1020
Mov Cap-2 Maneuver	-	-	-	-	-	-	762	730	-	794	715	-
Stage 1	-	-	-	-	-	-	912	816	-	942	838	-
Stage 2	-	-	-	-	-	-	899	837	-	900	802	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.65	1	9.98	9.89
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	767	149	-	-	241	-	-	767
HCM Lane V/C Ratio	0.058	0.006	-	-	0.005	-	-	0.04
HCM Ctrl Dly (s/v)	10	7.3	0	-	7.4	0	-	9.9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	22	50	66	73	69	89
Future Volume (vph)	22	50	66	73	69	89
Ideal Flow (vphpl)	1750	1750	1750	1900	1900	1750
Storage Length (ft)	50	50	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.924	
Flt Protected	0.950			0.977		
Satd. Flow (prot)	1630	1458	0	1820	1721	0
Flt Permitted	0.950			0.977		
Satd. Flow (perm)	1630	1458	0	1820	1721	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	192			350	349	
Travel Time (s)	4.4			8.0	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	54	72	79	75	97
Shared Lane Traffic (%)						
Lane Group Flow (vph)	24	54	0	151	172	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.11	1.11	1.11	1.00	1.00	1.11
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 29.9%		ICU Level of Service A	
Analysis Period (min) 15			

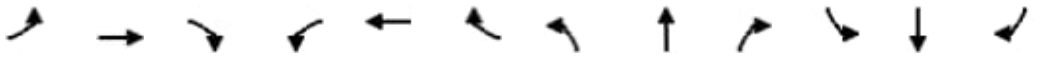
Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	50	66	73	69	89
Future Vol, veh/h	22	50	66	73	69	89
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	54	72	79	75	97

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	346	123	172	0	-	0
Stage 1	123	-	-	-	-	-
Stage 2	223	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	651	927	1405	-	-	-
Stage 1	902	-	-	-	-	-
Stage 2	814	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	616	927	1405	-	-	-
Mov Cap-2 Maneuver	616	-	-	-	-	-
Stage 1	854	-	-	-	-	-
Stage 2	814	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	9.72	3.66	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	855	-	616	927	-	-
HCM Lane V/C Ratio	0.051	-	0.039	0.059	-	-
HCM Ctrl Dly (s/v)	7.7	0	11.1	9.1	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.1	0.2	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	176	21	148	173	0	0	0	0	150	1	52
Future Volume (vph)	0	176	21	148	173	0	0	0	0	150	1	52
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.985									0.965	
Flt Protected					0.977						0.964	
Satd. Flow (prot)	0	1835	0	0	1820	0	0	0	0	0	1733	0
Flt Permitted					0.977						0.964	
Satd. Flow (perm)	0	1835	0	0	1820	0	0	0	0	0	1733	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		410			737			373			311	
Travel Time (s)		9.3			16.8			8.5			7.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	191	23	161	188	0	0	0	0	163	1	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	214	0	0	349	0	0	0	0	0	221	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	8.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	176	21	148	173	0	0	0	0	150	1	52
Future Vol, veh/h	0	176	21	148	173	0	0	0	0	150	1	52
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	191	23	161	188	0	0	0	0	163	1	57

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	214	0	0	701	724	188
Stage 1	-	-	-	-	-	-	510	510	-
Stage 2	-	-	-	-	-	-	191	214	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1356	-	0	405	352	854
Stage 1	0	-	-	-	-	0	603	538	-
Stage 2	0	-	-	-	-	0	841	725	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1356	-	-	351	0	854
Mov Cap-2 Maneuver	-	-	-	-	-	-	351	0	-
Stage 1	-	-	-	-	-	-	603	0	-
Stage 2	-	-	-	-	-	-	730	0	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	3.69	23.19
HCM LOS			C

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	830	-	414
HCM Lane V/C Ratio	-	-	0.119	-	0.533
HCM Ctrl Dly (s/v)	-	-	8	0	23.2
HCM Lane LOS	-	-	A	A	C
HCM 95th %tile Q(veh)	-	-	0.4	-	3



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	272	73	159	248	60	177
Future Volume (vph)	272	73	159	248	60	177
Ideal Flow (vphpl)	1900	1750	1750	1900	1750	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.972				0.899	
Flt Protected				0.981	0.988	
Satd. Flow (prot)	1811	0	0	1827	1524	0
Flt Permitted				0.981	0.988	
Satd. Flow (perm)	1811	0	0	1827	1524	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	737			1529	349	
Travel Time (s)	16.8			34.8	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	296	79	173	270	65	192
Shared Lane Traffic (%)						
Lane Group Flow (vph)	375	0	0	443	257	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.11	1.11	1.00	1.11	1.11
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 66.0%		ICU Level of Service C	
Analysis Period (min) 15			

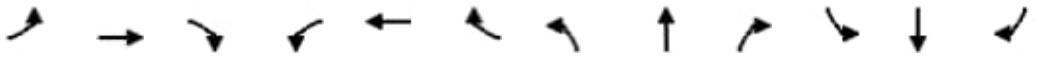
Intersection	
Int Delay, s/veh	6.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	272	73	159	248	60	177
Future Vol, veh/h	272	73	159	248	60	177
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	296	79	173	270	65	192

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	375	0	951	335
Stage 1	-	-	-	-	335	-
Stage 2	-	-	-	-	615	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1183	-	288	707
Stage 1	-	-	-	-	724	-
Stage 2	-	-	-	-	539	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1183	-	239	707
Mov Cap-2 Maneuver	-	-	-	-	239	-
Stage 1	-	-	-	-	724	-
Stage 2	-	-	-	-	447	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.34	21.38
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	472	-	-	703	-
HCM Lane V/C Ratio	0.545	-	-	0.146	-
HCM Ctrl Dly (s/v)	21.4	-	-	8.6	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	3.2	-	-	0.5	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	62	3	2	93	9	21	5	5	7	3	68
Future Volume (vph)	93	62	3	2	93	9	21	5	5	7	3	68
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.988			0.980			0.882	
Flt Protected		0.971			0.999			0.966			0.995	
Satd. Flow (prot)	0	1805	0	0	1839	0	0	1763	0	0	1635	0
Flt Permitted		0.971			0.999			0.966			0.995	
Satd. Flow (perm)	0	1805	0	0	1839	0	0	1763	0	0	1635	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1529			1048			528			215	
Travel Time (s)		34.8			23.8			12.0			4.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	67	3	2	101	10	23	5	5	8	3	74
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	171	0	0	113	0	0	33	0	0	85	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 29.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	93	62	3	2	93	9	21	5	5	7	3	68
Future Vol, veh/h	93	62	3	2	93	9	21	5	5	7	3	68
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	101	67	3	2	101	10	23	5	5	8	3	74

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	111	0	0	71	0	0	378	386	69	383	383	106
Stage 1	-	-	-	-	-	-	271	271	-	110	110	-
Stage 2	-	-	-	-	-	-	107	115	-	272	273	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1479	-	-	1530	-	-	579	548	994	575	550	948
Stage 1	-	-	-	-	-	-	735	685	-	895	804	-
Stage 2	-	-	-	-	-	-	898	800	-	734	684	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1479	-	-	1530	-	-	492	508	994	526	510	948
Mov Cap-2 Maneuver	-	-	-	-	-	-	492	508	-	526	510	-
Stage 1	-	-	-	-	-	-	682	636	-	894	803	-
Stage 2	-	-	-	-	-	-	824	799	-	672	635	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	4.48	0.14	12.12	9.66
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	539	1050	-	-	34	-	-	858
HCM Lane V/C Ratio	0.063	0.068	-	-	0.001	-	-	0.099
HCM Ctrl Dly (s/v)	12.1	7.6	0	-	7.4	0	-	9.7
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0.2	-	-	0	-	-	0.3



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	139	71	64	97	61	171
Future Volume (vph)	139	71	64	97	61	171
Ideal Flow (vphpl)	1750	1750	1750	1900	1900	1750
Storage Length (ft)	50	50	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.900	
Flt Protected	0.950			0.980		
Satd. Flow (prot)	1630	1458	0	1825	1676	0
Flt Permitted	0.950			0.980		
Satd. Flow (perm)	1630	1458	0	1825	1676	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	192			350	349	
Travel Time (s)	4.4			8.0	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	151	77	70	105	66	186
Shared Lane Traffic (%)						
Lane Group Flow (vph)	151	77	0	175	252	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.11	1.11	1.11	1.00	1.00	1.11
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	40.7%	ICU Level of Service	A
Analysis Period (min)	15		

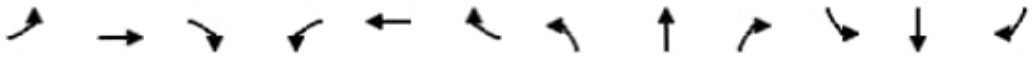
Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	139	71	64	97	61	171
Future Vol, veh/h	139	71	64	97	61	171
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	151	77	70	105	66	186

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	404	159	252	0	-	0
Stage 1	159	-	-	-	-	-
Stage 2	245	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	603	886	1313	-	-	-
Stage 1	869	-	-	-	-	-
Stage 2	796	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	569	886	1313	-	-	-
Mov Cap-2 Maneuver	569	-	-	-	-	-
Stage 1	821	-	-	-	-	-
Stage 2	796	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	12.2	3.14	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	716	-	569	886	-	-
HCM Lane V/C Ratio	0.053	-	0.266	0.087	-	-
HCM Ctrl Dly (s/v)	7.9	0	13.6	9.5	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	1.1	0.3	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	209	30	67	79	0	0	0	0	158	1	56
Future Volume (vph)	0	209	30	67	79	0	0	0	0	158	1	56
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.983									0.965	
Flt Protected					0.978						0.965	
Satd. Flow (prot)	0	1831	0	0	1822	0	0	0	0	0	1735	0
Flt Permitted					0.978						0.965	
Satd. Flow (perm)	0	1831	0	0	1822	0	0	0	0	0	1735	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		410			737			373			311	
Travel Time (s)		9.3			16.8			8.5			7.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	227	33	73	86	0	0	0	0	172	1	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	260	0	0	159	0	0	0	0	0	234	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 42.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	209	30	67	79	0	0	0	0	158	1	56
Future Vol, veh/h	0	209	30	67	79	0	0	0	0	158	1	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	227	33	73	86	0	0	0	0	172	1	61

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	260	0	0	459	491	86
Stage 1	-	-	-	-	-	-	232	232	-
Stage 2	-	-	-	-	-	-	227	260	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1305	-	0	560	478	973
Stage 1	0	-	-	-	-	0	807	713	-
Stage 2	0	-	-	-	-	0	811	693	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1305	-	-	528	0	973
Mov Cap-2 Maneuver	-	-	-	-	-	-	528	0	-
Stage 1	-	-	-	-	-	-	807	0	-
Stage 2	-	-	-	-	-	-	763	0	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	3.64	14.79
HCM LOS			B

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	826	-	599
HCM Lane V/C Ratio	-	-	0.056	-	0.39
HCM Ctrl Dly (s/v)	-	-	7.9	0	14.8
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0.2	-	1.8



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	249	120	70	82	62	146
Future Volume (vph)	249	120	70	82	62	146
Ideal Flow (vphpl)	1900	1750	1750	1900	1750	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.956				0.905	
Flt Protected				0.977	0.985	
Satd. Flow (prot)	1781	0	0	1820	1529	0
Flt Permitted				0.977	0.985	
Satd. Flow (perm)	1781	0	0	1820	1529	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	737			1529	349	
Travel Time (s)	16.8			34.8	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	271	130	76	89	67	159
Shared Lane Traffic (%)						
Lane Group Flow (vph)	401	0	0	165	226	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.11	1.11	1.00	1.11	1.11
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 52.1%		ICU Level of Service A	
Analysis Period (min) 15			

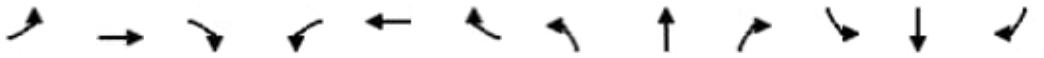
Intersection	
Int Delay, s/veh	5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	249	120	70	82	62	146
Future Vol, veh/h	249	120	70	82	62	146
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	271	130	76	89	67	159

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	401	0	577	336
Stage 1	-	-	-	-	336	-
Stage 2	-	-	-	-	241	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1158	-	478	706
Stage 1	-	-	-	-	724	-
Stage 2	-	-	-	-	799	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1158	-	445	706
Mov Cap-2 Maneuver	-	-	-	-	445	-
Stage 1	-	-	-	-	724	-
Stage 2	-	-	-	-	744	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.84	14.55
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	601	-	-	829	-
HCM Lane V/C Ratio	0.376	-	-	0.066	-
HCM Ctrl Dly (s/v)	14.6	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.7	-	-	0.2	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	54	31	7	70	9	22	15	4	7	21	66
Future Volume (vph)	74	54	31	7	70	9	22	15	4	7	21	66
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.986			0.988			0.906	
Flt Protected		0.977			0.996			0.973			0.996	
Satd. Flow (prot)	0	1771	0	0	1829	0	0	1791	0	0	1681	0
Flt Permitted		0.977			0.996			0.973			0.996	
Satd. Flow (perm)	0	1771	0	0	1829	0	0	1791	0	0	1681	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1529			1048			528			215	
Travel Time (s)		34.8			23.8			12.0			4.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	80	59	34	8	76	10	24	16	4	8	23	72
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	173	0	0	94	0	0	44	0	0	103	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 31.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	74	54	31	7	70	9	22	15	4	7	21	66
Future Vol, veh/h	74	54	31	7	70	9	22	15	4	7	21	66
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	80	59	34	8	76	10	24	16	4	8	23	72

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	86	0	0	92	0	0	339	338	76	324	349	81
Stage 1	-	-	-	-	-	-	236	236	-	96	96	-
Stage 2	-	-	-	-	-	-	103	101	-	228	253	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1510	-	-	1502	-	-	615	584	986	629	575	979
Stage 1	-	-	-	-	-	-	767	709	-	910	815	-
Stage 2	-	-	-	-	-	-	903	811	-	775	698	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1510	-	-	1502	-	-	513	548	986	571	539	979
Mov Cap-2 Maneuver	-	-	-	-	-	-	513	548	-	571	539	-
Stage 1	-	-	-	-	-	-	724	669	-	906	811	-
Stage 2	-	-	-	-	-	-	809	807	-	710	658	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	3.5	0.6	12.1	10.21
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	552	781	-	-	143	-	-	793
HCM Lane V/C Ratio	0.081	0.053	-	-	0.005	-	-	0.129
HCM Ctrl Dly (s/v)	12.1	7.5	0	-	7.4	0	-	10.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0.2	-	-	0	-	-	0.4



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	121	50	66	88	73	117
Future Volume (vph)	121	50	66	88	73	117
Ideal Flow (vphpl)	1750	1750	1750	1900	1900	1750
Storage Length (ft)	50	50	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.917	
Flt Protected	0.950			0.979		
Satd. Flow (prot)	1630	1458	0	1824	1708	0
Flt Permitted	0.950			0.979		
Satd. Flow (perm)	1630	1458	0	1824	1708	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	192			350	349	
Travel Time (s)	4.4			8.0	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	132	54	72	96	79	127
Shared Lane Traffic (%)						
Lane Group Flow (vph)	132	54	0	168	206	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.11	1.11	1.11	1.00	1.00	1.11
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 36.6%		ICU Level of Service A	
Analysis Period (min) 15			

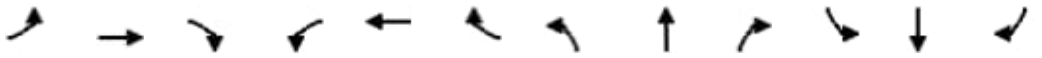
Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	121	50	66	88	73	117
Future Vol, veh/h	121	50	66	88	73	117
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	132	54	72	96	79	127

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	382	143	207	0	-	0
Stage 1	143	-	-	-	-	-
Stage 2	239	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	620	905	1365	-	-	-
Stage 1	884	-	-	-	-	-
Stage 2	801	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	586	905	1365	-	-	-
Mov Cap-2 Maneuver	586	-	-	-	-	-
Stage 1	835	-	-	-	-	-
Stage 2	801	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	11.84	3.34	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	771	-	586	905	-	-
HCM Lane V/C Ratio	0.053	-	0.224	0.06	-	-
HCM Ctrl Dly (s/v)	7.8	0	12.9	9.2	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.9	0.2	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	92	23	38	84	0	0	0	0	39	1	54
Future Volume (vph)	0	92	23	38	84	0	0	0	0	39	1	54
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973									0.922	
Flt Protected					0.985						0.980	
Satd. Flow (prot)	0	1812	0	0	1835	0	0	0	0	0	1683	0
Flt Permitted					0.985						0.980	
Satd. Flow (perm)	0	1812	0	0	1835	0	0	0	0	0	1683	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		410			737			373			311	
Travel Time (s)		9.3			16.8			8.5			7.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	100	25	41	91	0	0	0	0	42	1	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	125	0	0	132	0	0	0	0	0	102	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 25.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	92	23	38	84	0	0	0	0	39	1	54
Future Vol, veh/h	0	92	23	38	84	0	0	0	0	39	1	54
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	100	25	41	91	0	0	0	0	42	1	59

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	125	0	0	274	299	91
Stage 1	-	-	-	-	-	-	174	174	-
Stage 2	-	-	-	-	-	-	100	125	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1462	-	0	716	613	966
Stage 1	0	-	-	-	-	0	856	755	-
Stage 2	0	-	-	-	-	0	924	792	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1462	-	-	694	0	966
Mov Cap-2 Maneuver	-	-	-	-	-	-	694	0	-
Stage 1	-	-	-	-	-	-	856	0	-
Stage 2	-	-	-	-	-	-	896	0	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	2.35	9.95
HCM LOS			A

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	561	-	830
HCM Lane V/C Ratio	-	-	0.028	-	0.123
HCM Ctrl Dly (s/v)	-	-	7.5	0	9.9
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	-	0.4



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	73	80	29	44	65	17
Future Volume (vph)	73	80	29	44	65	17
Ideal Flow (vphpl)	1900	1750	1750	1900	1750	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.929				0.973	
Flt Protected				0.980	0.962	
Satd. Flow (prot)	1730	0	0	1825	1606	0
Flt Permitted				0.980	0.962	
Satd. Flow (perm)	1730	0	0	1825	1606	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	737			1529	349	
Travel Time (s)	16.8			34.8	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	79	87	32	48	71	18
Shared Lane Traffic (%)						
Lane Group Flow (vph)	166	0	0	80	89	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.11	1.11	1.00	1.11	1.11
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.7%		ICU Level of Service A	
Analysis Period (min) 15			

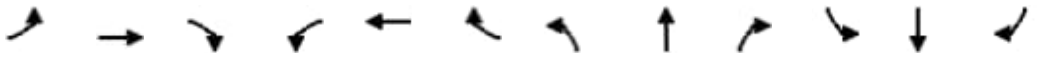
Intersection	
Int Delay, s/veh	3.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	73	80	29	44	65	17
Future Vol, veh/h	73	80	29	44	65	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	79	87	32	48	71	18

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	166	0	234	123
Stage 1	-	-	-	-	123	-
Stage 2	-	-	-	-	111	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1412	-	754	928
Stage 1	-	-	-	-	903	-
Stage 2	-	-	-	-	914	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1412	-	737	928
Mov Cap-2 Maneuver	-	-	-	-	737	-
Stage 1	-	-	-	-	903	-
Stage 2	-	-	-	-	893	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.02	10.29
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	770	-	-	715	-
HCM Lane V/C Ratio	0.116	-	-	0.022	-
HCM Ctrl Dly (s/v)	10.3	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	31	3	2	63	3	23	6	6	1	3	7
Future Volume (vph)	2	31	3	2	63	3	23	6	6	1	3	7
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.994			0.976			0.910	
Flt Protected		0.997			0.999			0.969			0.996	
Satd. Flow (prot)	0	1839	0	0	1850	0	0	1762	0	0	1688	0
Flt Permitted		0.997			0.999			0.969			0.996	
Satd. Flow (perm)	0	1839	0	0	1850	0	0	1762	0	0	1688	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1529			1048			528			215	
Travel Time (s)		34.8			23.8			12.0			4.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	34	3	2	68	3	25	7	7	1	3	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	39	0	0	73	0	0	39	0	0	12	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 19.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	31	3	2	63	3	23	6	6	1	3	7
Future Vol, veh/h	2	31	3	2	63	3	23	6	6	1	3	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	34	3	2	68	3	25	7	7	1	3	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	72	0	0	37	0	0	114	116	35	116	116	70
Stage 1	-	-	-	-	-	-	40	40	-	74	74	-
Stage 2	-	-	-	-	-	-	74	76	-	41	41	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1528	-	-	1574	-	-	863	774	1037	861	774	993
Stage 1	-	-	-	-	-	-	975	862	-	935	833	-
Stage 2	-	-	-	-	-	-	935	832	-	973	861	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1528	-	-	1574	-	-	850	772	1037	846	772	993
Mov Cap-2 Maneuver	-	-	-	-	-	-	850	772	-	846	772	-
Stage 1	-	-	-	-	-	-	974	861	-	933	832	-
Stage 2	-	-	-	-	-	-	923	830	-	958	859	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.41	0.21	9.37	9.02
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	862	98	-	-	52	-	-	908
HCM Lane V/C Ratio	0.044	0.001	-	-	0.001	-	-	0.013
HCM Ctrl Dly (s/v)	9.4	7.4	0	-	7.3	0	-	9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	27	72	70	52	46	64
Future Volume (vph)	27	72	70	52	46	64
Ideal Flow (vphpl)	1750	1750	1750	1900	1900	1750
Storage Length (ft)	50	50	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.921	
Flt Protected	0.950			0.972		
Satd. Flow (prot)	1630	1458	0	1811	1716	0
Flt Permitted	0.950			0.972		
Satd. Flow (perm)	1630	1458	0	1811	1716	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	192			350	349	
Travel Time (s)	4.4			8.0	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	78	76	57	50	70
Shared Lane Traffic (%)						
Lane Group Flow (vph)	29	78	0	133	120	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.11	1.11	1.11	1.00	1.00	1.11
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 23.3%		ICU Level of Service A	
Analysis Period (min) 15			

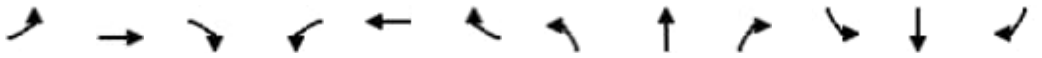
Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	27	72	70	52	46	64
Future Vol, veh/h	27	72	70	52	46	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	78	76	57	50	70

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	293	85	120	0	-	0
Stage 1	85	-	-	-	-	-
Stage 2	209	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	697	974	1468	-	-	-
Stage 1	939	-	-	-	-	-
Stage 2	826	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	660	974	1468	-	-	-
Mov Cap-2 Maneuver	660	-	-	-	-	-
Stage 1	888	-	-	-	-	-
Stage 2	826	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	9.48	4.35	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1033	-	660	974	-	-
HCM Lane V/C Ratio	0.052	-	0.044	0.08	-	-
HCM Ctrl Dly (s/v)	7.6	0	10.7	9	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.1	0.3	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	141	33	41	60	0	0	0	0	61	1	58
Future Volume (vph)	0	141	33	41	60	0	0	0	0	61	1	58
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.974									0.935	
Flt Protected					0.980						0.975	
Satd. Flow (prot)	0	1814	0	0	1825	0	0	0	0	0	1698	0
Flt Permitted					0.980						0.975	
Satd. Flow (perm)	0	1814	0	0	1825	0	0	0	0	0	1698	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		410			737			373			311	
Travel Time (s)		9.3			16.8			8.5			7.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	153	36	45	65	0	0	0	0	66	1	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	189	0	0	110	0	0	0	0	0	130	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 31.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	141	33	41	60	0	0	0	0	61	1	58
Future Vol, veh/h	0	141	33	41	60	0	0	0	0	61	1	58
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	153	36	45	65	0	0	0	0	66	1	63

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	189	0	0	308	343	65
Stage 1	-	-	-	-	-	-	154	154	-
Stage 2	-	-	-	-	-	-	153	189	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1385	-	0	685	579	999
Stage 1	0	-	-	-	-	0	874	770	-
Stage 2	0	-	-	-	-	0	875	744	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1385	-	-	662	0	999
Mov Cap-2 Maneuver	-	-	-	-	-	-	662	0	-
Stage 1	-	-	-	-	-	-	874	0	-
Stage 2	-	-	-	-	-	-	846	0	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	3.12	10.44
HCM LOS			B

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	731	-	792
HCM Lane V/C Ratio	-	-	0.032	-	0.165
HCM Ctrl Dly (s/v)	-	-	7.7	0	10.4
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0.1	-	0.6



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	74	131	39	32	67	34
Future Volume (vph)	74	131	39	32	67	34
Ideal Flow (vphpl)	1900	1750	1750	1900	1750	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.914				0.955	
Flt Protected				0.973	0.968	
Satd. Flow (prot)	1703	0	0	1812	1586	0
Flt Permitted				0.973	0.968	
Satd. Flow (perm)	1703	0	0	1812	1586	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	737			1529	349	
Travel Time (s)	16.8			34.8	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	80	142	42	35	73	37
Shared Lane Traffic (%)						
Lane Group Flow (vph)	222	0	0	77	110	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.11	1.11	1.00	1.11	1.11
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 32.1%		ICU Level of Service A	
Analysis Period (min) 15			

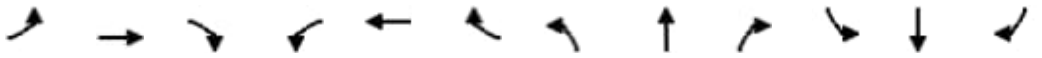
Intersection	
Int Delay, s/veh	3.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	74	131	39	32	67	34
Future Vol, veh/h	74	131	39	32	67	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	80	142	42	35	73	37

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	223	0	271	152
Stage 1	-	-	-	-	152	-
Stage 2	-	-	-	-	120	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1346	-	718	895
Stage 1	-	-	-	-	876	-
Stage 2	-	-	-	-	906	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1346	-	695	895
Mov Cap-2 Maneuver	-	-	-	-	695	-
Stage 1	-	-	-	-	876	-
Stage 2	-	-	-	-	877	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	4.26	10.61
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	752	-	-	989	-
HCM Lane V/C Ratio	0.146	-	-	0.031	-
HCM Ctrl Dly (s/v)	10.6	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	52	31	7	45	1	24	17	4	1	23	7
Future Volume (vph)	8	52	31	7	45	1	24	17	4	1	23	7
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.954			0.998			0.989			0.968	
Flt Protected		0.996			0.993			0.974			0.999	
Satd. Flow (prot)	0	1770	0	0	1846	0	0	1794	0	0	1801	0
Flt Permitted		0.996			0.993			0.974			0.999	
Satd. Flow (perm)	0	1770	0	0	1846	0	0	1794	0	0	1801	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1529			1048			528			215	
Travel Time (s)		34.8			23.8			12.0			4.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	57	34	8	49	1	26	18	4	1	25	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	100	0	0	58	0	0	48	0	0	34	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 21.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	52	31	7	45	1	24	17	4	1	23	7
Future Vol, veh/h	8	52	31	7	45	1	24	17	4	1	23	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	57	34	8	49	1	26	18	4	1	25	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	50	0	0	90	0	0	167	156	73	148	172	49
Stage 1	-	-	-	-	-	-	91	91	-	65	65	-
Stage 2	-	-	-	-	-	-	77	65	-	83	108	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1557	-	-	1505	-	-	797	736	988	820	721	1019
Stage 1	-	-	-	-	-	-	916	820	-	946	841	-
Stage 2	-	-	-	-	-	-	932	841	-	925	806	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1557	-	-	1505	-	-	755	728	988	787	713	1019
Mov Cap-2 Maneuver	-	-	-	-	-	-	755	728	-	787	713	-
Stage 1	-	-	-	-	-	-	911	815	-	941	837	-
Stage 2	-	-	-	-	-	-	893	836	-	895	801	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.64	0.98	10.06	9.91
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	760	147	-	-	237	-	-	767
HCM Lane V/C Ratio	0.064	0.006	-	-	0.005	-	-	0.044
HCM Ctrl Dly (s/v)	10.1	7.3	0	-	7.4	0	-	9.9
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	22	51	72	80	74	96
Future Volume (vph)	22	51	72	80	74	96
Ideal Flow (vphpl)	1750	1750	1750	1900	1900	1750
Storage Length (ft)	50	50	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.924	
Flt Protected	0.950			0.977		
Satd. Flow (prot)	1630	1458	0	1820	1721	0
Flt Permitted	0.950			0.977		
Satd. Flow (perm)	1630	1458	0	1820	1721	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	192			350	349	
Travel Time (s)	4.4			8.0	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	55	78	87	80	104
Shared Lane Traffic (%)						
Lane Group Flow (vph)	24	55	0	165	184	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.11	1.11	1.11	1.00	1.00	1.11
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	31.3%	ICU Level of Service	A
Analysis Period (min)	15		

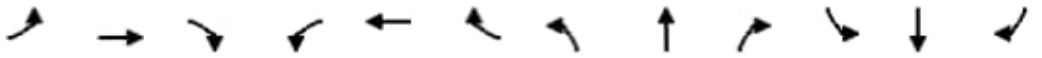
Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	51	72	80	74	96
Future Vol, veh/h	22	51	72	80	74	96
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	55	78	87	80	104

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	376	133	185	0	-	0
Stage 1	133	-	-	-	-	-
Stage 2	243	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	625	917	1390	-	-	-
Stage 1	894	-	-	-	-	-
Stage 2	797	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	588	917	1390	-	-	-
Mov Cap-2 Maneuver	588	-	-	-	-	-
Stage 1	841	-	-	-	-	-
Stage 2	797	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	9.84	3.67	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	853	-	588	917	-	-
HCM Lane V/C Ratio	0.056	-	0.041	0.06	-	-
HCM Ctrl Dly (s/v)	7.7	0	11.4	9.2	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.1	0.2	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	185	23	151	177	0	0	0	0	151	1	54
Future Volume (vph)	0	185	23	151	177	0	0	0	0	151	1	54
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.985									0.964	
Flt Protected					0.977						0.965	
Satd. Flow (prot)	0	1835	0	0	1820	0	0	0	0	0	1733	0
Flt Permitted					0.977						0.965	
Satd. Flow (perm)	0	1835	0	0	1820	0	0	0	0	0	1733	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		410			737			373			311	
Travel Time (s)		9.3			16.8			8.5			7.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	201	25	164	192	0	0	0	0	164	1	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	226	0	0	356	0	0	0	0	0	224	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 50.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	8.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	185	23	151	177	0	0	0	0	151	1	54
Future Vol, veh/h	0	185	23	151	177	0	0	0	0	151	1	54
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	201	25	164	192	0	0	0	0	164	1	59

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	226	0	0	722	747	192
Stage 1	-	-	-	-	-	-	521	521	-
Stage 2	-	-	-	-	-	-	201	226	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1342	-	0	394	342	849
Stage 1	0	-	-	-	-	0	596	532	-
Stage 2	0	-	-	-	-	0	833	717	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1342	-	-	340	0	849
Mov Cap-2 Maneuver	-	-	-	-	-	-	340	0	-
Stage 1	-	-	-	-	-	-	596	0	-
Stage 2	-	-	-	-	-	-	719	0	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	3.71	24.48
HCM LOS			C

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	829	-	404
HCM Lane V/C Ratio	-	-	0.122	-	0.555
HCM Ctrl Dly (s/v)	-	-	8.1	0	24.5
HCM Lane LOS	-	-	A	A	C
HCM 95th %tile Q(veh)	-	-	0.4	-	3.3



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	278	80	158	250	65	178
Future Volume (vph)	278	80	158	250	65	178
Ideal Flow (vphpl)	1900	1750	1750	1900	1750	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.970				0.901	
Flt Protected				0.981	0.987	
Satd. Flow (prot)	1807	0	0	1827	1526	0
Flt Permitted				0.981	0.987	
Satd. Flow (perm)	1807	0	0	1827	1526	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	737			1529	349	
Travel Time (s)	16.8			34.8	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	302	87	172	272	71	193
Shared Lane Traffic (%)						
Lane Group Flow (vph)	389	0	0	444	264	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.11	1.11	1.00	1.11	1.11
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 67.2%		ICU Level of Service C	
Analysis Period (min) 15			

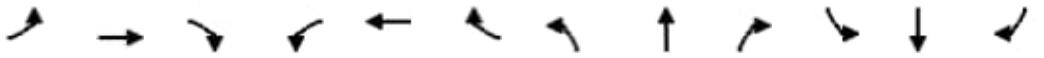
Intersection	
Int Delay, s/veh	6.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	278	80	158	250	65	178
Future Vol, veh/h	278	80	158	250	65	178
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	302	87	172	272	71	193

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	389	0	961	346
Stage 1	-	-	-	-	346	-
Stage 2	-	-	-	-	615	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1169	-	284	697
Stage 1	-	-	-	-	717	-
Stage 2	-	-	-	-	539	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1169	-	235	697
Mov Cap-2 Maneuver	-	-	-	-	235	-
Stage 1	-	-	-	-	717	-
Stage 2	-	-	-	-	446	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.33	23.11
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	457	-	-	697	-
HCM Lane V/C Ratio	0.578	-	-	0.147	-
HCM Ctrl Dly (s/v)	23.1	-	-	8.6	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	3.6	-	-	0.5	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	35	3	2	94	9	23	6	6	35	3	311
Future Volume (vph)	93	35	3	2	94	9	23	6	6	35	3	311
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.988			0.976			0.880	
Flt Protected		0.966			0.999			0.969			0.995	
Satd. Flow (prot)	0	1794	0	0	1839	0	0	1762	0	0	1631	0
Flt Permitted		0.966			0.999			0.969			0.995	
Satd. Flow (perm)	0	1794	0	0	1839	0	0	1762	0	0	1631	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1529			1048			528			215	
Travel Time (s)		34.8			23.8			12.0			4.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	38	3	2	102	10	25	7	7	38	3	338
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	142	0	0	114	0	0	39	0	0	379	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 41.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	8.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	93	35	3	2	94	9	23	6	6	35	3	311
Future Vol, veh/h	93	35	3	2	94	9	23	6	6	35	3	311
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	101	38	3	2	102	10	25	7	7	38	3	338

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	112	0	0	41	0	0	350	358	40	355	355	107
Stage 1	-	-	-	-	-	-	242	242	-	111	111	-
Stage 2	-	-	-	-	-	-	108	116	-	243	243	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1478	-	-	1568	-	-	605	568	1032	600	571	947
Stage 1	-	-	-	-	-	-	762	706	-	894	803	-
Stage 2	-	-	-	-	-	-	897	799	-	760	704	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1478	-	-	1568	-	-	359	528	1032	547	530	947
Mov Cap-2 Maneuver	-	-	-	-	-	-	359	528	-	547	530	-
Stage 1	-	-	-	-	-	-	708	656	-	892	802	-
Stage 2	-	-	-	-	-	-	574	798	-	695	655	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	5.41	0.14	14.17	12.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	431	1258	-	-	34	-	-	877
HCM Lane V/C Ratio	0.088	0.068	-	-	0.001	-	-	0.433
HCM Ctrl Dly (s/v)	14.2	7.6	0	-	7.3	0	-	12.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0.2	-	-	0	-	-	2.2



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	139	72	70	101	62	177
Future Volume (vph)	139	72	70	101	62	177
Ideal Flow (vphpl)	1750	1750	1750	1900	1900	1750
Storage Length (ft)	50	50	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.900	
Flt Protected	0.950			0.980		
Satd. Flow (prot)	1630	1458	0	1825	1676	0
Flt Permitted	0.950			0.980		
Satd. Flow (perm)	1630	1458	0	1825	1676	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	192			350	349	
Travel Time (s)	4.4			8.0	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	151	78	76	110	67	192
Shared Lane Traffic (%)						
Lane Group Flow (vph)	151	78	0	186	259	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.11	1.11	1.11	1.00	1.00	1.11
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	41.7%	ICU Level of Service	A
Analysis Period (min)	15		

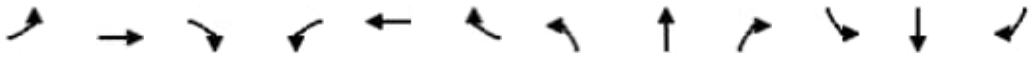
Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	139	72	70	101	62	177
Future Vol, veh/h	139	72	70	101	62	177
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	151	78	76	110	67	192

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	426	164	260	0	-	0
Stage 1	164	-	-	-	-	-
Stage 2	262	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	586	881	1305	-	-	-
Stage 1	866	-	-	-	-	-
Stage 2	782	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	549	881	1305	-	-	-
Mov Cap-2 Maneuver	549	-	-	-	-	-
Stage 1	812	-	-	-	-	-
Stage 2	782	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	12.47	3.25	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	737	-	549	881	-	-
HCM Lane V/C Ratio	0.058	-	0.275	0.089	-	-
HCM Ctrl Dly (s/v)	7.9	0	14	9.5	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	1.1	0.3	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	223	33	69	82	0	0	0	0	160	1	58
Future Volume (vph)	0	223	33	69	82	0	0	0	0	160	1	58
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.983									0.964	
Flt Protected					0.978						0.965	
Satd. Flow (prot)	0	1831	0	0	1822	0	0	0	0	0	1733	0
Flt Permitted					0.978						0.965	
Satd. Flow (perm)	0	1831	0	0	1822	0	0	0	0	0	1733	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		410			737			373			311	
Travel Time (s)		9.3			16.8			8.5			7.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	242	36	75	89	0	0	0	0	174	1	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	278	0	0	164	0	0	0	0	0	238	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	44.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	223	33	69	82	0	0	0	0	160	1	58
Future Vol, veh/h	0	223	33	69	82	0	0	0	0	160	1	58
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	242	36	75	89	0	0	0	0	174	1	63

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	278	0	0	482	517	89
Stage 1	-	-	-	-	-	-	239	239	-
Stage 2	-	-	-	-	-	-	242	278	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1284	-	0	544	462	969
Stage 1	0	-	-	-	-	0	801	707	-
Stage 2	0	-	-	-	-	0	798	680	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1284	-	-	510	0	969
Mov Cap-2 Maneuver	-	-	-	-	-	-	510	0	-
Stage 1	-	-	-	-	-	-	801	0	-
Stage 2	-	-	-	-	-	-	749	0	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	3.64	15.35
HCM LOS			C

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	823	-	584
HCM Lane V/C Ratio	-	-	0.058	-	0.408
HCM Ctrl Dly (s/v)	-	-	8	0	15.3
HCM Lane LOS	-	-	A	A	C
HCM 95th %tile Q(veh)	-	-	0.2	-	2



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	255	131	71	82	67	183
Future Volume (vph)	255	131	71	82	67	183
Ideal Flow (vphpl)	1900	1750	1750	1900	1750	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.954				0.901	
Flt Protected				0.977	0.987	
Satd. Flow (prot)	1777	0	0	1820	1526	0
Flt Permitted				0.977	0.987	
Satd. Flow (perm)	1777	0	0	1820	1526	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	737			1529	349	
Travel Time (s)	16.8			34.8	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	277	142	77	89	73	199
Shared Lane Traffic (%)						
Lane Group Flow (vph)	419	0	0	166	272	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.11	1.11	1.00	1.11	1.11
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 55.9%		ICU Level of Service B	
Analysis Period (min) 15			

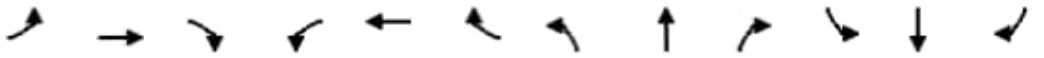
Intersection	
Int Delay, s/veh	5.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	255	131	71	82	67	183
Future Vol, veh/h	255	131	71	82	67	183
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	277	142	77	89	73	199

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	420	0	592	348
Stage 1	-	-	-	-	348	-
Stage 2	-	-	-	-	243	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1140	-	469	695
Stage 1	-	-	-	-	715	-
Stage 2	-	-	-	-	797	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1140	-	436	695
Mov Cap-2 Maneuver	-	-	-	-	436	-
Stage 1	-	-	-	-	715	-
Stage 2	-	-	-	-	740	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.89	15.89
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	599	-	-	835	-
HCM Lane V/C Ratio	0.453	-	-	0.068	-
HCM Ctrl Dly (s/v)	15.9	-	-	8.4	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	2.4	-	-	0.2	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	109	55	31	7	71	9	24	17	4	7	23	67
Future Volume (vph)	109	55	31	7	71	9	24	17	4	7	23	67
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.978			0.986			0.989			0.907	
Flt Protected		0.973			0.996			0.974			0.996	
Satd. Flow (prot)	0	1773	0	0	1829	0	0	1794	0	0	1683	0
Flt Permitted		0.973			0.996			0.974			0.996	
Satd. Flow (perm)	0	1773	0	0	1829	0	0	1794	0	0	1683	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1529			1048			528			215	
Travel Time (s)		34.8			23.8			12.0			4.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	118	60	34	8	77	10	26	18	4	8	25	73
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	212	0	0	95	0	0	48	0	0	106	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 33.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	109	55	31	7	71	9	24	17	4	7	23	67
Future Vol, veh/h	109	55	31	7	71	9	24	17	4	7	23	67
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	118	60	34	8	77	10	26	18	4	8	25	73

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	87	0	0	93	0	0	418	416	77	403	428	82
Stage 1	-	-	-	-	-	-	314	314	-	97	97	-
Stage 2	-	-	-	-	-	-	105	102	-	306	330	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1509	-	-	1501	-	-	545	527	984	558	519	978
Stage 1	-	-	-	-	-	-	697	657	-	909	814	-
Stage 2	-	-	-	-	-	-	901	811	-	704	645	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1509	-	-	1501	-	-	438	481	984	489	474	978
Mov Cap-2 Maneuver	-	-	-	-	-	-	438	481	-	489	474	-
Stage 1	-	-	-	-	-	-	639	602	-	904	810	-
Stage 2	-	-	-	-	-	-	804	806	-	623	592	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	4.24	0.6	13.4	10.69
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	477	938	-	-	142	-	-	738
HCM Lane V/C Ratio	0.102	0.079	-	-	0.005	-	-	0.143
HCM Ctrl Dly (s/v)	13.4	7.6	0	-	7.4	0	-	10.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0.3	-	-	0	-	-	0.5



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	121	51	72	130	78	124
Future Volume (vph)	121	51	72	130	78	124
Ideal Flow (vphpl)	1750	1750	1750	1900	1900	1750
Storage Length (ft)	50	50	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.917	
Flt Protected	0.950			0.983		
Satd. Flow (prot)	1630	1458	0	1831	1708	0
Flt Permitted	0.950			0.983		
Satd. Flow (perm)	1630	1458	0	1831	1708	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	192			350	349	
Travel Time (s)	4.4			8.0	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	132	55	78	141	85	135
Shared Lane Traffic (%)						
Lane Group Flow (vph)	132	55	0	219	220	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.11	1.11	1.11	1.00	1.00	1.11
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 39.8%		ICU Level of Service A	
Analysis Period (min) 15			

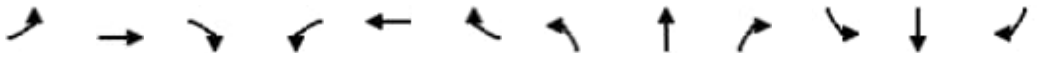
Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	121	51	72	130	78	124
Future Vol, veh/h	121	51	72	130	78	124
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	132	55	78	141	85	135

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	450	152	220	0	-	0
Stage 1	152	-	-	-	-	-
Stage 2	298	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	567	894	1350	-	-	-
Stage 1	876	-	-	-	-	-
Stage 2	753	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	531	894	1350	-	-	-
Mov Cap-2 Maneuver	531	-	-	-	-	-
Stage 1	821	-	-	-	-	-
Stage 2	753	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	12.6	2.79	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	642	-	531	894	-	-
HCM Lane V/C Ratio	0.058	-	0.248	0.062	-	-
HCM Ctrl Dly (s/v)	7.8	0	14	9.3	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	1	0.2	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	167	42	53	117	0	0	0	0	47	1	64
Future Volume (vph)	0	167	42	53	117	0	0	0	0	47	1	64
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973									0.923	
Flt Protected					0.985						0.980	
Satd. Flow (prot)	0	1812	0	0	1835	0	0	0	0	0	1685	0
Flt Permitted					0.985						0.980	
Satd. Flow (perm)	0	1812	0	0	1835	0	0	0	0	0	1685	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		410			737			373			311	
Travel Time (s)		9.3			16.8			8.5			7.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	182	46	58	127	0	0	0	0	51	1	70
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	228	0	0	185	0	0	0	0	0	122	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 37.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	167	42	53	117	0	0	0	0	47	1	64
Future Vol, veh/h	0	167	42	53	117	0	0	0	0	47	1	64
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	182	46	58	127	0	0	0	0	51	1	70

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	227	0	0	424	470	127
Stage 1	-	-	-	-	-	-	242	242	-
Stage 2	-	-	-	-	-	-	182	227	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1341	-	0	587	492	923
Stage 1	0	-	-	-	-	0	798	705	-
Stage 2	0	-	-	-	-	0	850	716	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1341	-	-	560	0	923
Mov Cap-2 Maneuver	-	-	-	-	-	-	560	0	-
Stage 1	-	-	-	-	-	-	798	0	-
Stage 2	-	-	-	-	-	-	810	0	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	2.43	10.97
HCM LOS			B

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	561	-	724
HCM Lane V/C Ratio	-	-	0.043	-	0.168
HCM Ctrl Dly (s/v)	-	-	7.8	0	11
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0.1	-	0.6



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	121	132	32	48	99	26
Future Volume (vph)	121	132	32	48	99	26
Ideal Flow (vphpl)	1900	1750	1750	1900	1750	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.930				0.972	
Flt Protected				0.980	0.962	
Satd. Flow (prot)	1732	0	0	1825	1604	0
Flt Permitted				0.980	0.962	
Satd. Flow (perm)	1732	0	0	1825	1604	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	737			1529	349	
Travel Time (s)	16.8			34.8	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	132	143	35	52	108	28
Shared Lane Traffic (%)						
Lane Group Flow (vph)	275	0	0	87	136	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.11	1.11	1.00	1.11	1.11
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 36.4%		ICU Level of Service A	
Analysis Period (min) 15			

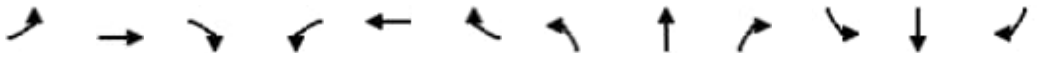
Intersection	
Int Delay, s/veh	3.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	121	132	32	48	99	26
Future Vol, veh/h	121	132	32	48	99	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	132	143	35	52	108	28

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	275	0	325	203
Stage 1	-	-	-	-	203	-
Stage 2	-	-	-	-	122	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1288	-	669	837
Stage 1	-	-	-	-	831	-
Stage 2	-	-	-	-	904	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1288	-	650	837
Mov Cap-2 Maneuver	-	-	-	-	650	-
Stage 1	-	-	-	-	831	-
Stage 2	-	-	-	-	878	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.15	11.59
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	682	-	-	720	-
HCM Lane V/C Ratio	0.199	-	-	0.027	-
HCM Ctrl Dly (s/v)	11.6	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	34	3	2	69	3	42	10	10	2	6	12
Future Volume (vph)	2	34	3	2	69	3	42	10	10	2	6	12
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.995			0.978			0.920	
Flt Protected		0.998			0.999			0.967			0.995	
Satd. Flow (prot)	0	1840	0	0	1852	0	0	1762	0	0	1705	0
Flt Permitted		0.998			0.999			0.967			0.995	
Satd. Flow (perm)	0	1840	0	0	1852	0	0	1762	0	0	1705	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1529			1048			528			605	
Travel Time (s)		34.8			23.8			12.0			13.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	37	3	2	75	3	46	11	11	2	7	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	42	0	0	80	0	0	68	0	0	22	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 21.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	34	3	2	69	3	42	10	10	2	6	12
Future Vol, veh/h	2	34	3	2	69	3	42	10	10	2	6	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	37	3	2	75	3	46	11	11	2	7	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	78	0	0	40	0	0	126	126	39	128	126	77
Stage 1	-	-	-	-	-	-	43	43	-	81	81	-
Stage 2	-	-	-	-	-	-	83	83	-	47	45	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1520	-	-	1569	-	-	848	765	1033	846	765	984
Stage 1	-	-	-	-	-	-	971	859	-	927	828	-
Stage 2	-	-	-	-	-	-	926	826	-	967	858	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1520	-	-	1569	-	-	827	763	1033	822	763	984
Mov Cap-2 Maneuver	-	-	-	-	-	-	827	763	-	822	763	-
Stage 1	-	-	-	-	-	-	970	858	-	926	826	-
Stage 2	-	-	-	-	-	-	905	825	-	943	857	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.38	0.2	9.64	9.15
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	843	91	-	-	48	-	-	889
HCM Lane V/C Ratio	0.08	0.001	-	-	0.001	-	-	0.024
HCM Ctrl Dly (s/v)	9.6	7.4	0	-	7.3	0	-	9.1
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.1



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	30	78	116	87	71	97
Future Volume (vph)	30	78	116	87	71	97
Ideal Flow (vphpl)	1750	1750	1750	1900	1900	1750
Storage Length (ft)	50	50	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.922	
Flt Protected	0.950			0.972		
Satd. Flow (prot)	1630	1458	0	1811	1717	0
Flt Permitted	0.950			0.972		
Satd. Flow (perm)	1630	1458	0	1811	1717	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	192			350	349	
Travel Time (s)	4.4			8.0	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	85	126	95	77	105
Shared Lane Traffic (%)						
Lane Group Flow (vph)	33	85	0	221	182	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.11	1.11	1.11	1.00	1.00	1.11
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.0%		ICU Level of Service A	
Analysis Period (min) 15			

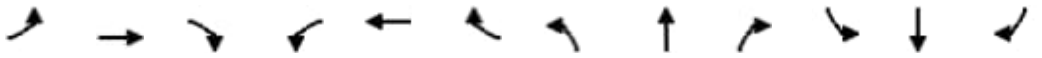
Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	78	116	87	71	97
Future Vol, veh/h	30	78	116	87	71	97
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	85	126	95	77	105

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	477	130	183	0	-	0
Stage 1	130	-	-	-	-	-
Stage 2	347	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	547	920	1392	-	-	-
Stage 1	896	-	-	-	-	-
Stage 2	716	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	495	920	1392	-	-	-
Mov Cap-2 Maneuver	495	-	-	-	-	-
Stage 1	810	-	-	-	-	-
Stage 2	716	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	10.28	4.48	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1029	-	495	920	-	-
HCM Lane V/C Ratio	0.091	-	0.066	0.092	-	-
HCM Ctrl Dly (s/v)	7.8	0	12.8	9.3	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.2	0.3	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	255	60	58	85	0	0	0	0	73	1	69
Future Volume (vph)	0	255	60	58	85	0	0	0	0	73	1	69
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.974									0.935	
Flt Protected					0.980						0.975	
Satd. Flow (prot)	0	1814	0	0	1825	0	0	0	0	0	1698	0
Flt Permitted					0.980						0.975	
Satd. Flow (perm)	0	1814	0	0	1825	0	0	0	0	0	1698	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		410			737			373			311	
Travel Time (s)		9.3			16.8			8.5			7.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	277	65	63	92	0	0	0	0	79	1	75
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	342	0	0	155	0	0	0	0	0	155	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	43.1%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	255	60	58	85	0	0	0	0	73	1	69
Future Vol, veh/h	0	255	60	58	85	0	0	0	0	73	1	69
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	277	65	63	92	0	0	0	0	79	1	75

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	342	0	0	496	561	92
Stage 1	-	-	-	-	-	-	218	218	-
Stage 2	-	-	-	-	-	-	277	342	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1217	-	0	533	437	965
Stage 1	0	-	-	-	-	0	818	722	-
Stage 2	0	-	-	-	-	0	770	638	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1217	-	-	504	0	965
Mov Cap-2 Maneuver	-	-	-	-	-	-	504	0	-
Stage 1	-	-	-	-	-	-	818	0	-
Stage 2	-	-	-	-	-	-	728	0	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	3.29	12.18
HCM LOS			B

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	730	-	657
HCM Lane V/C Ratio	-	-	0.052	-	0.237
HCM Ctrl Dly (s/v)	-	-	8.1	0	12.2
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0.2	-	0.9



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	123	217	42	35	102	53
Future Volume (vph)	123	217	42	35	102	53
Ideal Flow (vphpl)	1900	1750	1750	1900	1750	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.914				0.954	
Flt Protected				0.973	0.968	
Satd. Flow (prot)	1703	0	0	1812	1584	0
Flt Permitted				0.973	0.968	
Satd. Flow (perm)	1703	0	0	1812	1584	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	737			1529	349	
Travel Time (s)	16.8			34.8	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	134	236	46	38	111	58
Shared Lane Traffic (%)						
Lane Group Flow (vph)	370	0	0	84	169	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.11	1.11	1.00	1.11	1.11
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	43.6%	ICU Level of Service	A
Analysis Period (min)	15		

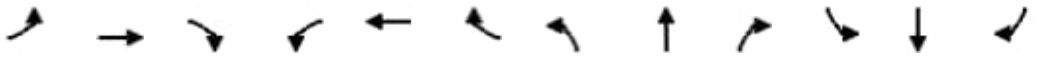
Intersection	
Int Delay, s/veh	4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	123	217	42	35	102	53
Future Vol, veh/h	123	217	42	35	102	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	134	236	46	38	111	58

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	370	0	381	252
Stage 1	-	-	-	-	252	-
Stage 2	-	-	-	-	129	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1189	-	621	787
Stage 1	-	-	-	-	790	-
Stage 2	-	-	-	-	897	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1189	-	597	787
Mov Cap-2 Maneuver	-	-	-	-	597	-
Stage 1	-	-	-	-	790	-
Stage 2	-	-	-	-	861	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	4.44	12.46
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	651	-	-	982	-
HCM Lane V/C Ratio	0.259	-	-	0.038	-
HCM Ctrl Dly (s/v)	12.5	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1	-	-	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	56	34	8	49	1	44	30	8	2	42	12
Future Volume (vph)	9	56	34	8	49	1	44	30	8	2	42	12
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.954			0.998			0.986			0.971	
Flt Protected		0.995			0.993			0.974			0.998	
Satd. Flow (prot)	0	1768	0	0	1846	0	0	1789	0	0	1805	0
Flt Permitted		0.995			0.993			0.974			0.998	
Satd. Flow (perm)	0	1768	0	0	1846	0	0	1789	0	0	1805	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1529			1048			528			215	
Travel Time (s)		34.8			23.8			12.0			4.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	61	37	9	53	1	48	33	9	2	46	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	108	0	0	63	0	0	90	0	0	61	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 24.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	56	34	8	49	1	44	30	8	2	42	12
Future Vol, veh/h	9	56	34	8	49	1	44	30	8	2	42	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	61	37	9	53	1	48	33	9	2	46	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	54	0	0	98	0	0	192	171	79	168	189	54
Stage 1	-	-	-	-	-	-	99	99	-	71	71	-
Stage 2	-	-	-	-	-	-	93	72	-	97	117	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1551	-	-	1495	-	-	767	722	981	796	706	1013
Stage 1	-	-	-	-	-	-	907	813	-	939	836	-
Stage 2	-	-	-	-	-	-	913	835	-	910	798	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1551	-	-	1495	-	-	699	713	981	744	697	1013
Mov Cap-2 Maneuver	-	-	-	-	-	-	699	713	-	744	697	-
Stage 1	-	-	-	-	-	-	901	808	-	933	831	-
Stage 2	-	-	-	-	-	-	847	830	-	860	793	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.67	1.02	10.66	10.23
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	725	152	-	-	247	-	-	749
HCM Lane V/C Ratio	0.123	0.006	-	-	0.006	-	-	0.081
HCM Ctrl Dly (s/v)	10.7	7.3	0	-	7.4	0	-	10.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0.3



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	24	55	119	132	114	146
Future Volume (vph)	24	55	119	132	114	146
Ideal Flow (vphpl)	1750	1750	1750	1900	1900	1750
Storage Length (ft)	50	50	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.924	
Flt Protected	0.950			0.977		
Satd. Flow (prot)	1630	1458	0	1820	1721	0
Flt Permitted	0.950			0.977		
Satd. Flow (perm)	1630	1458	0	1820	1721	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	192			350	349	
Travel Time (s)	4.4			8.0	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	60	129	143	124	159
Shared Lane Traffic (%)						
Lane Group Flow (vph)	26	60	0	272	283	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.11	1.11	1.11	1.00	1.00	1.11
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	41.8%	ICU Level of Service	A
Analysis Period (min)	15		

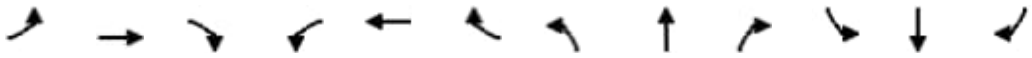
Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	24	55	119	132	114	146
Future Vol, veh/h	24	55	119	132	114	146
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	60	129	143	124	159

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	605	203	283	0	-	0
Stage 1	203	-	-	-	-	-
Stage 2	402	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	461	837	1280	-	-	-
Stage 1	831	-	-	-	-	-
Stage 2	675	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	410	837	1280	-	-	-
Mov Cap-2 Maneuver	410	-	-	-	-	-
Stage 1	740	-	-	-	-	-
Stage 2	675	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	11.07	3.85	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	853	-	410	837	-	-
HCM Lane V/C Ratio	0.101	-	0.064	0.071	-	-
HCM Ctrl Dly (s/v)	8.1	0	14.4	9.6	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.2	0.2	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	260	42	166	210	0	0	0	0	159	1	64
Future Volume (vph)	0	260	42	166	210	0	0	0	0	159	1	64
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.981									0.961	
Flt Protected					0.978						0.966	
Satd. Flow (prot)	0	1827	0	0	1822	0	0	0	0	0	1729	0
Flt Permitted					0.978						0.966	
Satd. Flow (perm)	0	1827	0	0	1822	0	0	0	0	0	1729	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		410			737			373			311	
Travel Time (s)		9.3			16.8			8.5			7.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	283	46	180	228	0	0	0	0	173	1	70
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	329	0	0	408	0	0	0	0	0	244	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 59.2%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	11.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	260	42	166	210	0	0	0	0	159	1	64
Future Vol, veh/h	0	260	42	166	210	0	0	0	0	159	1	64
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	283	46	180	228	0	0	0	0	173	1	70

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	328	0	0	872	917	228
Stage 1	-	-	-	-	-	-	589	589	-
Stage 2	-	-	-	-	-	-	283	328	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1231	-	0	321	272	811
Stage 1	0	-	-	-	-	0	554	495	-
Stage 2	0	-	-	-	-	0	765	647	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1231	-	-	267	0	811
Mov Cap-2 Maneuver	-	-	-	-	-	-	267	0	-
Stage 1	-	-	-	-	-	-	554	0	-
Stage 2	-	-	-	-	-	-	637	0	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	3.72	40.88
HCM LOS			E

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	795	-	331
HCM Lane V/C Ratio	-	-	0.147	-	0.736
HCM Ctrl Dly (s/v)	-	-	8.4	0	40.9
HCM Lane LOS	-	-	A	A	E
HCM 95th %tile Q(veh)	-	-	0.5	-	5.5

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	326	132	161	254	99	187
Future Volume (vph)	326	132	161	254	99	187
Ideal Flow (vphpl)	1900	1750	1750	1900	1750	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.961				0.912	
Flt Protected				0.981	0.983	
Satd. Flow (prot)	1790	0	0	1827	1538	0
Flt Permitted				0.981	0.983	
Satd. Flow (perm)	1790	0	0	1827	1538	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	737			1529	349	
Travel Time (s)	16.8			34.8	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	354	143	175	276	108	203
Shared Lane Traffic (%)						
Lane Group Flow (vph)	497	0	0	451	311	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.11	1.11	1.00	1.11	1.11
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	75.9%	ICU Level of Service	D
Analysis Period (min)	15		

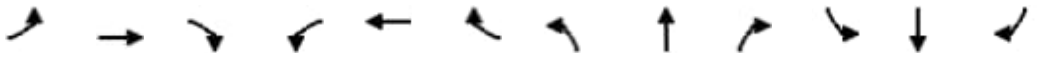
Intersection	
Int Delay, s/veh	14.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	326	132	161	254	99	187
Future Vol, veh/h	326	132	161	254	99	187
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	354	143	175	276	108	203

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	498	0	1052	426
Stage 1	-	-	-	-	426	-
Stage 2	-	-	-	-	626	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1066	-	251	628
Stage 1	-	-	-	-	659	-
Stage 2	-	-	-	-	533	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1066	-	202	628
Mov Cap-2 Maneuver	-	-	-	-	202	-
Stage 1	-	-	-	-	659	-
Stage 2	-	-	-	-	430	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.51	52.21
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	363	-	-	698	-
HCM Lane V/C Ratio	0.856	-	-	0.164	-
HCM Ctrl Dly (s/v)	52.2	-	-	9	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	8	-	-	0.6	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	38	3	2	100	9	42	10	10	36	6	316
Future Volume (vph)	93	38	3	2	100	9	42	10	10	36	6	316
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.989			0.978			0.881	
Flt Protected		0.966			0.999			0.967			0.995	
Satd. Flow (prot)	0	1794	0	0	1840	0	0	1762	0	0	1633	0
Flt Permitted		0.966			0.999			0.967			0.995	
Satd. Flow (perm)	0	1794	0	0	1840	0	0	1762	0	0	1633	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1529			1048			528			215	
Travel Time (s)		34.8			23.8			12.0			4.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	41	3	2	109	10	46	11	11	39	7	343
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	145	0	0	121	0	0	68	0	0	389	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 42.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	9.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	93	38	3	2	100	9	42	10	10	36	6	316
Future Vol, veh/h	93	38	3	2	100	9	42	10	10	36	6	316
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	101	41	3	2	109	10	46	11	11	39	7	343

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	118	0	0	45	0	0	361	368	43	367	365	114
Stage 1	-	-	-	-	-	-	245	245	-	118	118	-
Stage 2	-	-	-	-	-	-	116	123	-	249	247	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1470	-	-	1564	-	-	594	561	1027	589	563	939
Stage 1	-	-	-	-	-	-	759	703	-	887	798	-
Stage 2	-	-	-	-	-	-	888	794	-	755	702	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1470	-	-	1564	-	-	346	521	1027	531	523	939
Mov Cap-2 Maneuver	-	-	-	-	-	-	346	521	-	531	523	-
Stage 1	-	-	-	-	-	-	705	654	-	885	797	-
Stage 2	-	-	-	-	-	-	558	793	-	683	653	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	5.3	0.13	15.43	12.58
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	412	1231	-	-	32	-	-	861
HCM Lane V/C Ratio	0.163	0.069	-	-	0.001	-	-	0.452
HCM Ctrl Dly (s/v)	15.4	7.6	0	-	7.3	0	-	12.6
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0.2	-	-	0	-	-	2.4



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	142	78	116	136	87	210
Future Volume (vph)	142	78	116	136	87	210
Ideal Flow (vphpl)	1750	1750	1750	1900	1900	1750
Storage Length (ft)	50	50	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.905	
Flt Protected	0.950			0.978		
Satd. Flow (prot)	1630	1458	0	1822	1686	0
Flt Permitted	0.950			0.978		
Satd. Flow (perm)	1630	1458	0	1822	1686	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	192			350	349	
Travel Time (s)	4.4			8.0	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	154	85	126	148	95	228
Shared Lane Traffic (%)						
Lane Group Flow (vph)	154	85	0	274	323	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.11	1.11	1.11	1.00	1.00	1.11
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	49.6%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	142	78	116	136	87	210
Future Vol, veh/h	142	78	116	136	87	210
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	154	85	126	148	95	228

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	609	209	323	0	-	0
Stage 1	209	-	-	-	-	-
Stage 2	400	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	459	832	1237	-	-	-
Stage 1	826	-	-	-	-	-
Stage 2	677	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	408	832	1237	-	-	-
Mov Cap-2 Maneuver	408	-	-	-	-	-
Stage 1	734	-	-	-	-	-
Stage 2	677	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	15.82	3.79	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	829	-	408	832	-	-
HCM Lane V/C Ratio	0.102	-	0.379	0.102	-	-
HCM Ctrl Dly (s/v)	8.2	0	19.1	9.8	-	-
HCM Lane LOS	A	A	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	1.7	0.3	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	337	60	86	107	0	0	0	0	172	1	69
Future Volume (vph)	0	337	60	86	107	0	0	0	0	172	1	69
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980									0.962	
Flt Protected					0.978						0.966	
Satd. Flow (prot)	0	1825	0	0	1822	0	0	0	0	0	1731	0
Flt Permitted					0.978						0.966	
Satd. Flow (perm)	0	1825	0	0	1822	0	0	0	0	0	1731	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		410			737			373			311	
Travel Time (s)		9.3			16.8			8.5			7.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	366	65	93	116	0	0	0	0	187	1	75
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	431	0	0	209	0	0	0	0	0	263	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 55.6%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	7.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	337	60	86	107	0	0	0	0	172	1	69
Future Vol, veh/h	0	337	60	86	107	0	0	0	0	172	1	69
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	366	65	93	116	0	0	0	0	187	1	75

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	432	0	0	670	735	116
Stage 1	-	-	-	-	-	-	303	303	-
Stage 2	-	-	-	-	-	-	366	432	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1128	-	0	422	347	936
Stage 1	0	-	-	-	-	0	749	663	-
Stage 2	0	-	-	-	-	0	701	583	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1128	-	-	385	0	936
Mov Cap-2 Maneuver	-	-	-	-	-	-	385	0	-
Stage 1	-	-	-	-	-	-	749	0	-
Stage 2	-	-	-	-	-	-	639	0	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	3.78	22.51
HCM LOS			C

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	802	-	463
HCM Lane V/C Ratio	-	-	0.083	-	0.568
HCM Ctrl Dly (s/v)	-	-	8.5	0	22.5
HCM Lane LOS	-	-	A	A	C
HCM 95th %tile Q(veh)	-	-	0.3	-	3.5



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	304	217	74	85	102	202
Future Volume (vph)	304	217	74	85	102	202
Ideal Flow (vphpl)	1900	1750	1750	1900	1750	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.944				0.910	
Flt Protected				0.977	0.984	
Satd. Flow (prot)	1758	0	0	1820	1536	0
Flt Permitted				0.977	0.984	
Satd. Flow (perm)	1758	0	0	1820	1536	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	737			1529	349	
Travel Time (s)	16.8			34.8	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	330	236	80	92	111	220
Shared Lane Traffic (%)						
Lane Group Flow (vph)	566	0	0	172	331	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.11	1.11	1.00	1.11	1.11
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 67.4%		ICU Level of Service C	
Analysis Period (min) 15			

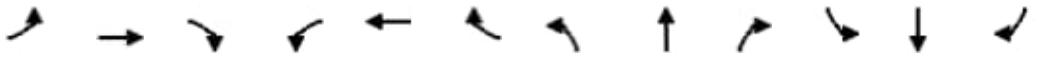
Intersection	
Int Delay, s/veh	8.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	304	217	74	85	102	202
Future Vol, veh/h	304	217	74	85	102	202
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	330	236	80	92	111	220

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	566	0	702	448
Stage 1	-	-	-	-	448	-
Stage 2	-	-	-	-	253	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1006	-	405	610
Stage 1	-	-	-	-	643	-
Stage 2	-	-	-	-	789	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1006	-	370	610
Mov Cap-2 Maneuver	-	-	-	-	370	-
Stage 1	-	-	-	-	643	-
Stage 2	-	-	-	-	722	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	4.14	24.98
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	501	-	-	838	-
HCM Lane V/C Ratio	0.659	-	-	0.08	-
HCM Ctrl Dly (s/v)	25	-	-	8.9	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	4.7	-	-	0.3	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	59	34	8	75	9	44	30	8	8	42	72
Future Volume (vph)	110	59	34	8	75	9	44	30	8	8	42	72
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.977			0.987			0.986			0.921	
Flt Protected		0.974			0.996			0.974			0.997	
Satd. Flow (prot)	0	1773	0	0	1831	0	0	1789	0	0	1710	0
Flt Permitted		0.974			0.996			0.974			0.997	
Satd. Flow (perm)	0	1773	0	0	1831	0	0	1789	0	0	1710	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1529			1048			528			215	
Travel Time (s)		34.8			23.8			12.0			4.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	120	64	37	9	82	10	48	33	9	9	46	78
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	221	0	0	101	0	0	90	0	0	133	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 35.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	7.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	110	59	34	8	75	9	44	30	8	8	42	72
Future Vol, veh/h	110	59	34	8	75	9	44	30	8	8	42	72
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	120	64	37	9	82	10	48	33	9	9	46	78

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	91	0	0	101	0	0	443	430	83	423	444	86
Stage 1	-	-	-	-	-	-	322	322	-	104	104	-
Stage 2	-	-	-	-	-	-	122	109	-	320	340	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1504	-	-	1491	-	-	525	517	977	541	508	972
Stage 1	-	-	-	-	-	-	690	651	-	902	809	-
Stage 2	-	-	-	-	-	-	882	805	-	692	639	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1504	-	-	1491	-	-	399	471	977	457	463	972
Mov Cap-2 Maneuver	-	-	-	-	-	-	399	471	-	457	463	-
Stage 1	-	-	-	-	-	-	632	596	-	896	804	-
Stage 2	-	-	-	-	-	-	761	800	-	593	585	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	4.12	0.65	14.96	11.71
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	450	909	-	-	153	-	-	669
HCM Lane V/C Ratio	0.198	0.08	-	-	0.006	-	-	0.198
HCM Ctrl Dly (s/v)	15	7.6	0	-	7.4	0	-	11.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.7	0.3	-	-	0	-	-	0.7



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	123	55	119	182	118	174
Future Volume (vph)	123	55	119	182	118	174
Ideal Flow (vphpl)	1750	1750	1750	1900	1900	1750
Storage Length (ft)	50	50	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.920	
Flt Protected	0.950			0.981		
Satd. Flow (prot)	1630	1458	0	1827	1714	0
Flt Permitted	0.950			0.981		
Satd. Flow (perm)	1630	1458	0	1827	1714	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	192			350	349	
Travel Time (s)	4.4			8.0	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	134	60	129	198	128	189
Shared Lane Traffic (%)						
Lane Group Flow (vph)	134	60	0	327	317	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.11	1.11	1.11	1.00	1.00	1.11
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	50.4%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	123	55	119	182	118	174
Future Vol, veh/h	123	55	119	182	118	174
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	134	60	129	198	128	189

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	679	223	317	0	-	0
Stage 1	223	-	-	-	-	-
Stage 2	457	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	417	817	1243	-	-	-
Stage 1	814	-	-	-	-	-
Stage 2	638	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	368	817	1243	-	-	-
Mov Cap-2 Maneuver	368	-	-	-	-	-
Stage 1	719	-	-	-	-	-
Stage 2	638	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	17.01	3.26	0
HCM LOS	C		

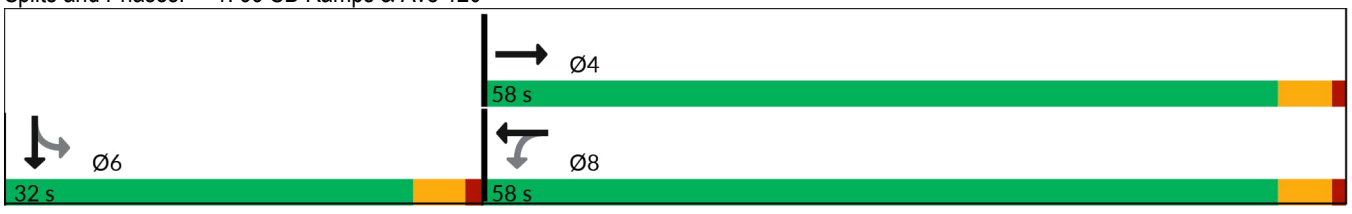
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	712	-	368	817	-	-
HCM Lane V/C Ratio	0.104	-	0.363	0.073	-	-
HCM Ctrl Dly (s/v)	8.2	0	20.2	9.8	-	-
HCM Lane LOS	A	A	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	1.6	0.2	-	-

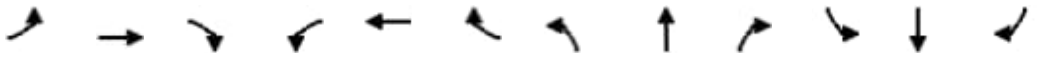
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	260	42	166	210	0	0	0	0	159	1	64
Future Volume (vph)	0	260	42	166	210	0	0	0	0	159	1	64
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.981									0.961	
Flt Protected					0.978						0.966	
Satd. Flow (prot)	0	1827	0	0	1822	0	0	0	0	0	1729	0
Flt Permitted					0.717						0.966	
Satd. Flow (perm)	0	1827	0	0	1336	0	0	0	0	0	1729	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16									23	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		410			737			373			311	
Travel Time (s)		9.3			16.8			8.5			7.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	283	46	180	228	0	0	0	0	173	1	70
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	329	0	0	408	0	0	0	0	0	244	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2					1	2	
Detector Template		Thru		Left	Thru					Left	Thru	
Leading Detector (ft)		100		20	100					20	100	
Trailing Detector (ft)		0		0	0					0	0	
Detector 1 Position(ft)		0		0	0					0	0	
Detector 1 Size(ft)		6		20	6					20	6	
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0					0.0	0.0	
Detector 1 Queue (s)		0.0		0.0	0.0					0.0	0.0	
Detector 1 Delay (s)		0.0		0.0	0.0					0.0	0.0	
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		58.0		58.0	58.0					32.0	32.0	
Total Split (%)		64.4%		64.4%	64.4%					35.6%	35.6%	
Maximum Green (s)		53.5		53.5	53.5					27.5	27.5	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0			0.0						0.0	
Total Lost Time (s)		4.5			4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	
Recall Mode		None		None	None					Min	Min	
Walk Time (s)		7.0		7.0	7.0					7.0	7.0	
Flash Don't Walk (s)		11.0		11.0	11.0					11.0	11.0	
Pedestrian Calls (#/hr)		0		0	0					0	0	
Act Effct Green (s)		19.4			19.4						11.5	
Actuated g/C Ratio		0.48			0.48						0.28	
v/c Ratio		0.37			0.64						0.48	
Control Delay (s/veh)		7.8			13.4						16.3	
Queue Delay		0.0			0.0						0.0	
Total Delay (s/veh)		7.8			13.4						16.3	
LOS		A			B						B	
Approach Delay (s/veh)		7.8			13.4						16.3	
Approach LOS		A			B						B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 40.7			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay (s/veh): 12.3		Intersection LOS: B	
Intersection Capacity Utilization 60.5%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: 99 SB Ramps & Ave 120





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	260	42	166	210	0	0	0	0	159	1	64
Future Volume (veh/h)	0	260	42	166	210	0	0	0	0	159	1	64
Number	7	4	14	3	8	18				1	6	16
Initial Q, veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	1723	1723	1870	0				1723	1870	1723
Adj Flow Rate, veh/h	0	283	46	180	228	0				173	1	70
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Opposing Right Turn Influence	No			Yes						Yes		
Cap, veh/h	0	690	112	376	396	0				299	2	121
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Prop Arrive On Green	0.00	0.44	0.44	0.44	0.44	0.00				0.25	0.25	0.25
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	5.8	7.0	0.0	0.0				10.7	0.0	0.0
Ln Grp LOS			A	A						B		
Approach Vol, veh/h		329			408						244	
Approach Delay, s/veh		5.8			7.0						10.7	
Approach LOS		A			A						B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	6			4				8
Case No	12.0			8.0				8.0
Phs Duration (G+Y+Rc), s	11.5			17.1				17.1
Change Period (Y+Rc), s	4.5			4.5				4.5
Max Green (Gmax), s	27.5			53.5				53.5
Max Allow Headway (MAH), s	5.4			5.3				5.6
Max Q Clear (g_c+I1), s	5.6			5.5				9.3
Green Ext Time (g_e), s	1.4			2.2				3.3
Prob of Phs Call (p_c)	1.00			1.00				1.00
Prob of Max Out (p_x)	0.00			0.00				0.00

Left-Turn Movement Data								
Assigned Mvmt	1			7				3
Mvmt Sat Flow, veh/h	1220			0				442

Through Movement Data								
Assigned Mvmt	6			4				8
Mvmt Sat Flow, veh/h	7			1569				900

Right-Turn Movement Data								
Assigned Mvmt	16			14				18
Mvmt Sat Flow, veh/h	494			255				0

Left Lane Group Data								
Assigned Mvmt	1	0	0	7	0	0	0	3

Lane Assignment	L+T+R							L+T
Lanes in Grp	1	0	0	0	0	0	0	1
Grp Vol (v), veh/h	244	0	0	0	0	0	0	408
Grp Sat Flow (s), veh/h/ln	1721	0	0	0	0	0	0	1342
Q Serve Time (g_s), s	3.6	0.0	0.0	0.0	0.0	0.0	0.0	3.8
Cycle Q Clear Time (g_c), s	3.6	0.0	0.0	0.0	0.0	0.0	0.0	7.3
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	1068
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.6
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
Time to First Blk (g_f), s	0.0	0.0	0.0	12.6	0.0	0.0	0.0	2.3
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
Prop LT Inside Lane (P_L)	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.44
Lane Grp Cap (c), veh/h	422	0	0	0	0	0	0	772
V/C Ratio (X)	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.53
Avail Cap (c_a), veh/h	1656	0	0	0	0	0	0	2766
Upstream Filter (I)	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	9.5	0.0	0.0	0.0	0.0	0.0	0.0	6.4
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	10.7	0.0	0.0	0.0	0.0	0.0	0.0	7.0
1st-Term Q (Q1), veh/ln	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.8
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
%ile Storage Ratio (RQ%)	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	6	0	0	4	0	0	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	16	0	0	14	0	0	0	18
Lane Assignment				T+R				
Lanes in Grp	0	0	0	1	0	0	0	0
Grp Vol (v), veh/h	0	0	0	329	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1824	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.29	0.00	0.00	0.14	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	803	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	3417	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	5.5	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	7.5
HCM 7th LOS	A

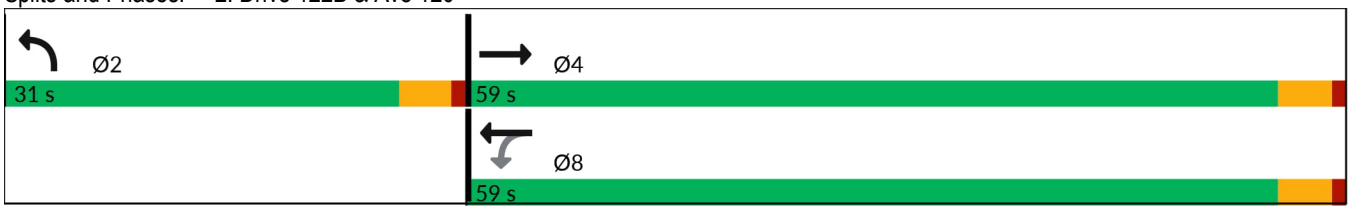


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	326	132	161	254	99	187
Future Volume (vph)	326	132	161	254	99	187
Ideal Flow (vphpl)	1900	1750	1750	1900	1750	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.961				0.912	
Flt Protected				0.981	0.983	
Satd. Flow (prot)	1790	0	0	1827	1538	0
Flt Permitted				0.619	0.983	
Satd. Flow (perm)	1790	0	0	1153	1538	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	41				107	
Link Speed (mph)	30			30	30	
Link Distance (ft)	737			1529	349	
Travel Time (s)	16.8			34.8	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	354	143	175	276	108	203
Shared Lane Traffic (%)						
Lane Group Flow (vph)	497	0	0	451	311	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.11	1.11	1.00	1.11	1.11
Turning Speed (mph)		9	15		15	9
Number of Detectors	2		1	2	1	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	100		20	100	20	
Trailing Detector (ft)	0		0	0	0	
Detector 1 Position(ft)	0		0	0	0	
Detector 1 Size(ft)	6		20	6	20	
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA		Perm	NA	Prot	
Protected Phases	4			8	2	
Permitted Phases			8			
Detector Phase	4		8	8	2	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	59.0		59.0	59.0	31.0	
Total Split (%)	65.6%		65.6%	65.6%	34.4%	
Maximum Green (s)	54.5		54.5	54.5	26.5	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	None	Min	
Walk Time (s)	7.0		7.0	7.0	7.0	
Flash Don't Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Act Effct Green (s)	28.0			28.0	14.2	
Actuated g/C Ratio	0.53			0.53	0.27	
v/c Ratio	0.51			0.74	0.63	
Control Delay (s/veh)	9.3			18.1	19.7	
Queue Delay	0.0			0.0	0.0	
Total Delay (s/veh)	9.3			18.1	19.7	
LOS	A			B	B	
Approach Delay (s/veh)	9.3			18.1	19.7	
Approach LOS	A			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 52.8			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay (s/veh): 15.0		Intersection LOS: B	
Intersection Capacity Utilization 77.2%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 2: Drive 122B & Ave 120





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	326	132	161	254	99	187
Future Volume (veh/h)	326	132	161	254	99	187
Number	4	14	3	8	5	12
Initial Q, veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)		1.00	1.00		1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	1723	1723	1870	1723	1723
Adj Flow Rate, veh/h	354	143	175	276	108	203
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence			Yes		Yes	
Cap, veh/h	654	264	291	410	138	259
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.52	0.52	0.52	0.52	0.26	0.26
Unsig. Movement Delay						
Ln Grp Delay, s/veh	0.0	7.1	9.5	0.0	17.3	0.0
Ln Grp LOS		A	A		B	
Approach Vol, veh/h	497			451	312	
Approach Delay, s/veh	7.1			9.5	17.3	
Approach LOS	A			A	B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Case No		12.0		8.0				8.0
Phs Duration (G+Y+Rc), s		15.2		25.6				25.6
Change Period (Y+Rc), s		4.5		4.5				4.5
Max Green (Gmax), s		26.5		54.5				54.5
Max Allow Headway (MAH), s		4.0		5.3				5.8
Max Q Clear (g_c+I1), s		9.8		9.6				17.1
Green Ext Time (g_e), s		0.9		3.8				4.0
Prob of Phs Call (p_c)		1.00		1.00				1.00
Prob of Max Out (p_x)		0.00		0.00				0.00
Left-Turn Movement Data								
Assigned Mvmt		5		7				3
Mvmt Sat Flow, veh/h		526		0				326
Through Movement Data								
Assigned Mvmt		2		4				8
Mvmt Sat Flow, veh/h		5		1267				793
Right-Turn Movement Data								
Assigned Mvmt		12		14				18
Mvmt Sat Flow, veh/h		988		512				0
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	0	0	3

Lane Assignment		L+T+R						L+T
Lanes in Grp	0	1	0	0	0	0	0	1
Grp Vol (v), veh/h	0	312	0	0	0	0	0	451
Grp Sat Flow (s), veh/h/ln	0	1519	0	0	0	0	0	1119
Q Serve Time (g_s), s	0.0	7.8	0.0	0.0	0.0	0.0	0.0	7.4
Cycle Q Clear Time (g_c), s	0.0	7.8	0.0	0.0	0.0	0.0	0.0	15.1
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	915
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.1
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.4
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4
Time to First Blk (g_f), s	0.0	0.0	0.0	21.1	0.0	0.0	0.0	3.1
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
Prop LT Inside Lane (P_L)	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.39
Lane Grp Cap (c), veh/h	0	399	0	0	0	0	0	701
V/C Ratio (X)	0.00	0.78	0.00	0.00	0.00	0.00	0.00	0.64
Avail Cap (c_a), veh/h	0	988	0	0	0	0	0	1783
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.9	0.0	0.0	0.0	0.0	0.0	8.5
Incr Delay (d2), s/veh	0.0	3.4	0.0	0.0	0.0	0.0	0.0	1.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.3	0.0	0.0	0.0	0.0	0.0	9.5
1st-Term Q (Q1), veh/ln	0.0	2.1	0.0	0.0	0.0	0.0	0.0	1.5
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.5	0.0	0.0	0.0	0.0	0.0	1.7
%ile Storage Ratio (RQ%)	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	0	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	0	0	18
Lane Assignment				T+R				
Lanes in Grp	0	0	0	1	0	0	0	0
Grp Vol (v), veh/h	0	0	0	497	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1778	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	7.6	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	7.6	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.65	0.00	0.29	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	919	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	2378	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	6.6	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	7.1	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

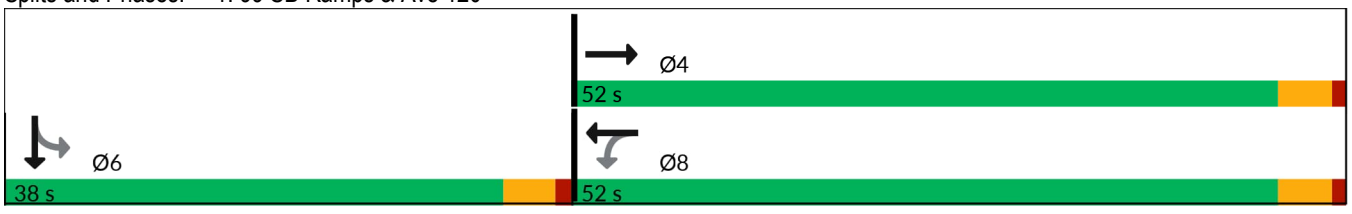
Intersection Summary	
HCM 7th Control Delay, s/veh	10.5
HCM 7th LOS	B

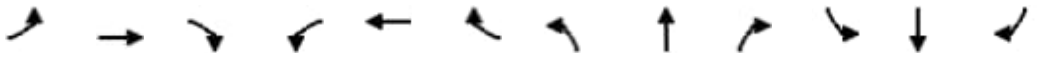
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	337	60	86	107	0	0	0	0	172	1	69
Future Volume (vph)	0	337	60	86	107	0	0	0	0	172	1	69
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980									0.962	
Flt Protected					0.978						0.966	
Satd. Flow (prot)	0	1825	0	0	1822	0	0	0	0	0	1731	0
Flt Permitted					0.708						0.966	
Satd. Flow (perm)	0	1825	0	0	1319	0	0	0	0	0	1731	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15									25	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		410			737			373			311	
Travel Time (s)		9.3			16.8			8.5			7.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	366	65	93	116	0	0	0	0	187	1	75
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	431	0	0	209	0	0	0	0	0	263	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2					1	2	
Detector Template		Thru		Left	Thru					Left	Thru	
Leading Detector (ft)		100		20	100					20	100	
Trailing Detector (ft)		0		0	0					0	0	
Detector 1 Position(ft)		0		0	0					0	0	
Detector 1 Size(ft)		6		20	6					20	6	
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0					0.0	0.0	
Detector 1 Queue (s)		0.0		0.0	0.0					0.0	0.0	
Detector 1 Delay (s)		0.0		0.0	0.0					0.0	0.0	
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		52.0		52.0	52.0					38.0	38.0	
Total Split (%)		57.8%		57.8%	57.8%					42.2%	42.2%	
Maximum Green (s)		47.5		47.5	47.5					33.5	33.5	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0			0.0						0.0	
Total Lost Time (s)		4.5			4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	
Recall Mode		None		None	None					Min	Min	
Walk Time (s)		7.0		7.0	7.0					7.0	7.0	
Flash Don't Walk (s)		11.0		11.0	11.0					11.0	11.0	
Pedestrian Calls (#/hr)		0		0	0					0	0	
Act Effct Green (s)		14.2			14.2						10.9	
Actuated g/C Ratio		0.41			0.41						0.32	
v/c Ratio		0.57			0.39						0.47	
Control Delay (s/veh)		11.1			9.9						12.6	
Queue Delay		0.0			0.0						0.0	
Total Delay (s/veh)		11.1			9.9						12.6	
LOS		B			A						B	
Approach Delay (s/veh)		11.1			9.9						12.6	
Approach LOS		B			A						B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 34.6			
Natural Cycle: 45			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay (s/veh): 11.3		Intersection LOS: B	
Intersection Capacity Utilization 56.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: 99 SB Ramps & Ave 120





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	337	60	86	107	0	0	0	0	172	1	69
Future Volume (veh/h)	0	337	60	86	107	0	0	0	0	172	1	69
Number	7	4	14	3	8	18				1	6	16
Initial Q, veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	1723	1723	1870	0				1723	1870	1723
Adj Flow Rate, veh/h	0	366	65	93	116	0				187	1	75
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Opposing Right Turn Influence	No			Yes						Yes		
Cap, veh/h	0	591	105	311	308	0				334	2	134
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Prop Arrive On Green	0.00	0.38	0.38	0.38	0.38	0.00				0.27	0.27	0.27
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	7.4	6.1	0.0	0.0				9.2	0.0	0.0
Ln Grp LOS			A	A						A		
Approach Vol, veh/h		431			209						263	
Approach Delay, s/veh		7.4			6.1						9.2	
Approach LOS		A			A						A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	6			4				8
Case No	12.0			8.0				8.0
Phs Duration (G+Y+Rc), s	11.6			14.5				14.5
Change Period (Y+Rc), s	4.5			4.5				4.5
Max Green (Gmax), s	33.5			47.5				47.5
Max Allow Headway (MAH), s	5.4			5.3				5.8
Max Q Clear (g_c+I1), s	5.4			7.0				7.5
Green Ext Time (g_e), s	1.7			3.1				1.6
Prob of Phs Call (p_c)	1.00			0.99				0.99
Prob of Max Out (p_x)	0.00			0.00				0.00

Left-Turn Movement Data								
Assigned Mvmt	1			7				3
Mvmt Sat Flow, veh/h	1224			0				292

Through Movement Data								
Assigned Mvmt	6			4				8
Mvmt Sat Flow, veh/h	7			1546				807

Right-Turn Movement Data								
Assigned Mvmt	16			14				18
Mvmt Sat Flow, veh/h	491			275				0

Left Lane Group Data								
Assigned Mvmt	1	0	0	7	0	0	0	3

Lane Assignment	L+T+R							L+T
Lanes in Grp	1	0	0	0	0	0	0	1
Grp Vol (v), veh/h	263	0	0	0	0	0	0	209
Grp Sat Flow (s), veh/h/ln	1721	0	0	0	0	0	0	1098
Q Serve Time (g_s), s	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Cycle Q Clear Time (g_c), s	3.4	0.0	0.0	0.0	0.0	0.0	0.0	5.5
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	972
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Time to First Blk (g_f), s	0.0	0.0	0.0	10.0	0.0	0.0	0.0	2.4
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
Prop LT Inside Lane (P_L)	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.44
Lane Grp Cap (c), veh/h	469	0	0	0	0	0	0	619
V/C Ratio (X)	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.34
Avail Cap (c_a), veh/h	2210	0	0	0	0	0	0	2508
Upstream Filter (I)	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	8.1	0.0	0.0	0.0	0.0	0.0	0.0	5.8
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	9.2	0.0	0.0	0.0	0.0	0.0	0.0	6.1
1st-Term Q (Q1), veh/ln	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.4
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.4
%ile Storage Ratio (RQ%)	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	6	0	0	4	0	0	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	16	0	0	14	0	0	0	18
Lane Assignment				T+R				
Lanes in Grp	0	0	0	1	0	0	0	0
Grp Vol (v), veh/h	0	0	0	431	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1821	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.29	0.00	0.00	0.15	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	696	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	3315	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	6.5	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	7.4	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	7.6
HCM 7th LOS	A

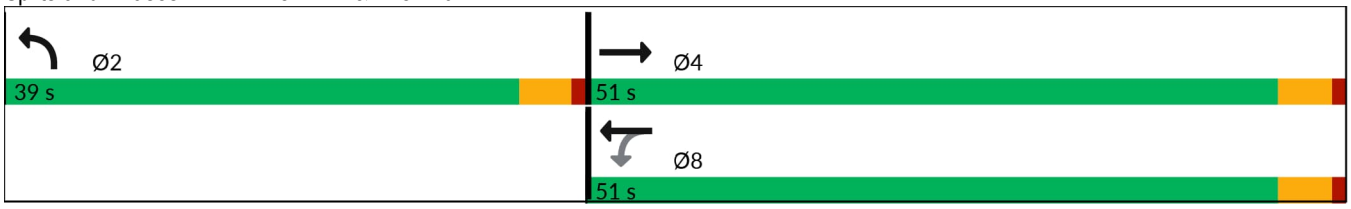


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	304	217	74	85	102	202
Future Volume (vph)	304	217	74	85	102	202
Ideal Flow (vphpl)	1900	1750	1750	1900	1750	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.944				0.910	
Flt Protected				0.977	0.984	
Satd. Flow (prot)	1758	0	0	1820	1536	0
Flt Permitted				0.638	0.984	
Satd. Flow (perm)	1758	0	0	1188	1536	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	59				129	
Link Speed (mph)	30			30	30	
Link Distance (ft)	737			1529	349	
Travel Time (s)	16.8			34.8	7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	330	236	80	92	111	220
Shared Lane Traffic (%)						
Lane Group Flow (vph)	566	0	0	172	331	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.11	1.11	1.00	1.11	1.11
Turning Speed (mph)		9	15		15	9
Number of Detectors	2		1	2	1	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	100		20	100	20	
Trailing Detector (ft)	0		0	0	0	
Detector 1 Position(ft)	0		0	0	0	
Detector 1 Size(ft)	6		20	6	20	
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA		Perm	NA	Prot	
Protected Phases	4			8	2	
Permitted Phases			8			
Detector Phase	4		8	8	2	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	51.0		51.0	51.0	39.0	
Total Split (%)	56.7%		56.7%	56.7%	43.3%	
Maximum Green (s)	46.5		46.5	46.5	34.5	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	None	Min	
Walk Time (s)	7.0		7.0	7.0	7.0	
Flash Don't Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Act Effct Green (s)	19.1			19.1	12.6	
Actuated g/C Ratio	0.46			0.46	0.30	
v/c Ratio	0.68			0.32	0.60	
Control Delay (s/veh)	12.9			9.6	13.5	
Queue Delay	0.0			0.0	0.0	
Total Delay (s/veh)	12.9			9.6	13.5	
LOS	B			A	B	
Approach Delay (s/veh)	12.9			9.6	13.5	
Approach LOS	B			A	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 41.7			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay (s/veh): 12.6		Intersection LOS: B	
Intersection Capacity Utilization 68.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: Drive 122B & Ave 120





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	304	217	74	85	102	202
Future Volume (veh/h)	304	217	74	85	102	202
Number	4	14	3	8	5	12
Initial Q, veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)		1.00	1.00		1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	1723	1723	1870	1723	1723
Adj Flow Rate, veh/h	330	236	80	92	111	220
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence			Yes		Yes	
Cap, veh/h	458	328	256	243	147	290
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.45	0.45	0.45	0.45	0.29	0.29
Unsig. Movement Delay						
Ln Grp Delay, s/veh	0.0	9.0	7.0	0.0	13.9	0.0
Ln Grp LOS		A	A		B	
Approach Vol, veh/h	566			172	332	
Approach Delay, s/veh	9.0			7.0	13.9	
Approach LOS	A			A	B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Case No		12.0		8.0				8.0
Phs Duration (G+Y+Rc), s		14.5		20.2				20.2
Change Period (Y+Rc), s		4.5		4.5				4.5
Max Green (Gmax), s		34.5		46.5				46.5
Max Allow Headway (MAH), s		4.0		5.4				6.0
Max Q Clear (g_c+I1), s		8.9		11.2				12.3
Green Ext Time (g_e), s		1.1		4.5				1.4
Prob of Phs Call (p_c)		1.00		1.00				1.00
Prob of Max Out (p_x)		0.00		0.00				0.00

Left-Turn Movement Data								
Assigned Mvmt		5		7				3
Mvmt Sat Flow, veh/h		507		0				230

Through Movement Data								
Assigned Mvmt		2		4				8
Mvmt Sat Flow, veh/h		5		1014				538

Right-Turn Movement Data								
Assigned Mvmt		12		14				18
Mvmt Sat Flow, veh/h		1005		725				0

Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	0	0	3

Lane Assignment		L+T+R						L+T
Lanes in Grp	0	1	0	0	0	0	0	1
Grp Vol (v), veh/h	0	332	0	0	0	0	0	172
Grp Sat Flow (s), veh/h/ln	0	1516	0	0	0	0	0	768
Q Serve Time (g_s), s	0.0	6.9	0.0	0.0	0.0	0.0	0.0	1.2
Cycle Q Clear Time (g_c), s	0.0	6.9	0.0	0.0	0.0	0.0	0.0	10.3
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	858
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.7
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Time to First Blk (g_f), s	0.0	0.0	0.0	15.7	0.0	0.0	0.0	2.3
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
Prop LT Inside Lane (P_L)	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.47
Lane Grp Cap (c), veh/h	0	438	0	0	0	0	0	499
V/C Ratio (X)	0.00	0.76	0.00	0.00	0.00	0.00	0.00	0.34
Avail Cap (c_a), veh/h	0	1509	0	0	0	0	0	1562
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	11.2	0.0	0.0	0.0	0.0	0.0	6.5
Incr Delay (d2), s/veh	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.9	0.0	0.0	0.0	0.0	0.0	7.0
1st-Term Q (Q1), veh/ln	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.5
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.5
%ile Storage Ratio (RQ%)	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	0	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	0	0	18
Lane Assignment				T+R				
Lanes in Grp	0	0	0	1	0	0	0	0
Grp Vol (v), veh/h	0	0	0	566	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1740	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.66	0.00	0.42	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	786	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	2333	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	7.7	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	9.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	10.2
HCM 7th LOS	B

Intersection: 1: 99 SB Ramps & Ave 120

Movement	WB	SB
Directions Served	LT	LTR
Maximum Queue (ft)	31	78
Average Queue (ft)	3	37
95th Queue (ft)	18	66
Link Distance (ft)	352	1152
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Drive 122B & 99 NB Ramps

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	56	32
Average Queue (ft)	34	5
95th Queue (ft)	56	24
Link Distance (ft)	163	327
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: 99 SB Ramps & Ave 120

Movement	WB	SB
Directions Served	LT	LTR
Maximum Queue (ft)	31	79
Average Queue (ft)	3	37
95th Queue (ft)	18	58
Link Distance (ft)	352	1222
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Drive 122B & 99 NB Ramps

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	56	55
Average Queue (ft)	30	9
95th Queue (ft)	48	36
Link Distance (ft)	163	327
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: 99 SB Ramps & Ave 120

Movement	WB	SB
Directions Served	LT	LTR
Maximum Queue (ft)	95	116
Average Queue (ft)	25	57
95th Queue (ft)	59	94
Link Distance (ft)	352	1924
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Drive 122B & 99 NB Ramps

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	116	55
Average Queue (ft)	56	16
95th Queue (ft)	96	47
Link Distance (ft)	571	328
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: 99 SB Ramps & Ave 120

Movement	WB	SB
Directions Served	LT	LTR
Maximum Queue (ft)	53	95
Average Queue (ft)	12	51
95th Queue (ft)	39	84
Link Distance (ft)	352	1222
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Drive 122B & 99 NB Ramps

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	79	51
Average Queue (ft)	45	9
95th Queue (ft)	69	33
Link Distance (ft)	163	327
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: 99 SB Ramps & Ave 120

Movement	WB	SB
Directions Served	LT	LTR
Maximum Queue (ft)	31	79
Average Queue (ft)	5	40
95th Queue (ft)	24	66
Link Distance (ft)	352	1634
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Drive 122B & 99 NB Ramps

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	77	52
Average Queue (ft)	30	6
95th Queue (ft)	53	28
Link Distance (ft)	625	328
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: 99 SB Ramps & Ave 120

Movement	WB	SB
Directions Served	LT	LTR
Maximum Queue (ft)	50	55
Average Queue (ft)	8	34
95th Queue (ft)	31	47
Link Distance (ft)	1116	1224
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Drive 122B & 99 NB Ramps

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	56	51
Average Queue (ft)	31	9
95th Queue (ft)	45	36
Link Distance (ft)	163	327
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: 99 SB Ramps & Ave 120

Movement	WB	SB
Directions Served	LT	LTR
Maximum Queue (ft)	95	120
Average Queue (ft)	28	60
95th Queue (ft)	62	100
Link Distance (ft)	352	1818
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Drive 122B & 99 NB Ramps

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	112	55
Average Queue (ft)	55	14
95th Queue (ft)	91	43
Link Distance (ft)	620	328
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: 99 SB Ramps & Ave 120

Movement	WB	SB
Directions Served	LT	LTR
Maximum Queue (ft)	54	116
Average Queue (ft)	16	51
95th Queue (ft)	43	84
Link Distance (ft)	1116	1389
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Drive 122B & 99 NB Ramps

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	79	53
Average Queue (ft)	45	9
95th Queue (ft)	69	34
Link Distance (ft)	163	327
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: 99 SB Ramps & Ave 120

Movement	WB	SB
Directions Served	LT	LTR
Maximum Queue (ft)	68	78
Average Queue (ft)	14	38
95th Queue (ft)	47	63
Link Distance (ft)	352	1812
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Drive 122B & 99 NB Ramps

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	54	52
Average Queue (ft)	34	13
95th Queue (ft)	47	40
Link Distance (ft)	636	328
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: 99 SB Ramps & Ave 120

Movement	WB	SB
Directions Served	LT	LTR
Maximum Queue (ft)	53	79
Average Queue (ft)	16	46
95th Queue (ft)	45	71
Link Distance (ft)	352	994
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Drive 122B & 99 NB Ramps

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	75	78	22
Average Queue (ft)	30	29	1
95th Queue (ft)	50	60	10
Link Distance (ft)	636	328	140
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: 99 SB Ramps & Ave 120

Movement	WB	SB
Directions Served	LT	LTR
Maximum Queue (ft)	96	162
Average Queue (ft)	37	76
95th Queue (ft)	76	134
Link Distance (ft)	352	1581
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Drive 122B & 99 NB Ramps

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	141	69	41
Average Queue (ft)	61	27	2
95th Queue (ft)	107	61	16
Link Distance (ft)	646	328	140
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: 99 SB Ramps & Ave 120

Movement	WB	SB
Directions Served	LT	LTR
Maximum Queue (ft)	76	141
Average Queue (ft)	25	73
95th Queue (ft)	60	122
Link Distance (ft)	352	1454
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Drive 122B & 99 NB Ramps

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	138	96	22
Average Queue (ft)	55	33	2
95th Queue (ft)	97	73	12
Link Distance (ft)	600	328	140
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: 99 SB Ramps & Ave 120

Movement	EB	WB	SB
Directions Served	TR	LT	LTR
Maximum Queue (ft)	140	141	180
Average Queue (ft)	55	89	68
95th Queue (ft)	98	140	125
Link Distance (ft)	382	352	282
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Drive 122B & 99 NB Ramps

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	142	69	40
Average Queue (ft)	68	26	1
95th Queue (ft)	121	57	13
Link Distance (ft)	163	327	140
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: 99 SB Ramps & Ave 120

Movement	EB	WB	SB
Directions Served	TR	LT	LTR
Maximum Queue (ft)	137	118	100
Average Queue (ft)	68	59	64
95th Queue (ft)	109	95	98
Link Distance (ft)	382	1116	1994
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Drive 122B & 99 NB Ramps

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	137	96	22
Average Queue (ft)	56	32	2
95th Queue (ft)	97	72	12
Link Distance (ft)	636	328	140
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

JHG Holdings LLC
3506 W Nielsen Ave
Fresno, CA 93706

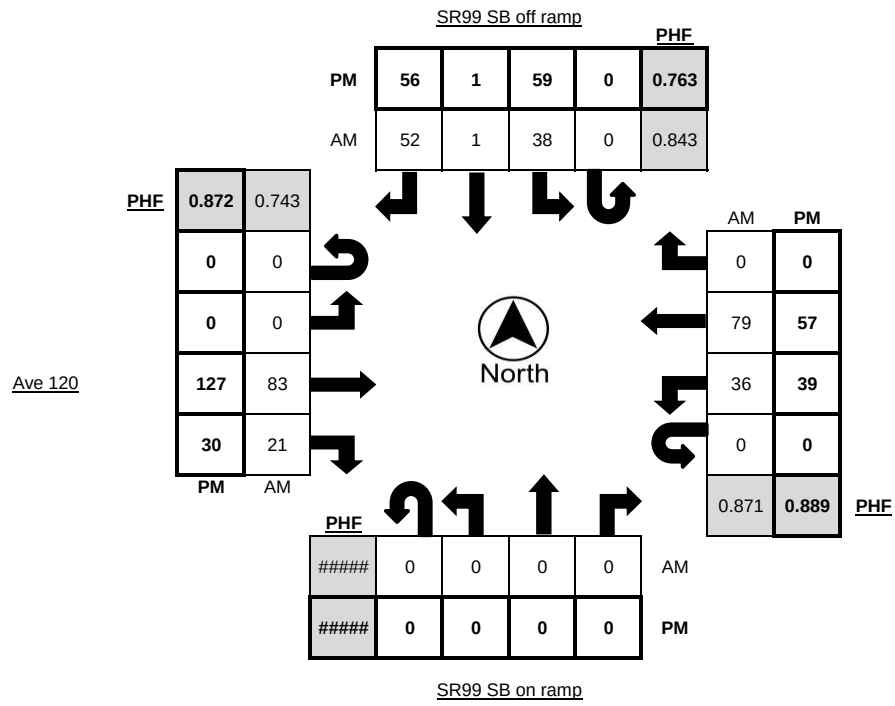
LOCATION Ave 120 @ SR99 SB Ramps
LATITUDE 36.0077
COUNTY Tulare
LONGITUDE -119.3024
COLLECTION DATE Tuesday, August 20, 2024
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	0	0	0	0	0	0	9	0	15	3	0	0	27	4	16	0	4	19	0	9
7:15 AM - 7:30 AM	0	0	0	0	0	0	9	0	9	5	0	0	27	3	13	0	6	19	0	9
7:30 AM - 7:45 AM	0	0	0	0	0	0	7	0	10	2	0	0	28	1	16	0	8	22	0	9
7:45 AM - 8:00 AM	0	0	0	0	0	0	13	0	17	6	0	0	12	3	5	0	5	12	0	6
8:00 AM - 8:15 AM	0	0	0	0	0	0	11	0	16	7	0	0	28	7	16	0	12	20	0	14
8:15 AM - 8:30 AM	0	0	0	0	0	0	8	0	14	5	0	0	13	3	10	0	7	18	0	8
8:30 AM - 8:45 AM	0	0	0	0	0	0	7	0	14	6	0	0	18	6	7	0	7	18	0	13
8:45 AM - 9:00 AM	0	0	0	0	0	0	12	1	8	5	0	0	24	5	19	0	10	23	0	15
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**76**	**1**	**103**	**39**	**0**	**0**	**177**	**32**	**102**	**0**	**59**	**151**	**0**	**83**

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	0	0	0	0	0	0	12	0	12	8	0	0	35	8	7	0	9	11	0	3
4:15 PM - 4:30 PM	0	0	0	0	0	0	17	1	20	12	0	0	36	9	5	0	11	13	0	2
4:30 PM - 4:45 PM	0	0	0	0	0	0	15	0	8	2	0	0	32	5	8	0	10	17	0	2
4:45 PM - 5:00 PM	0	0	0	0	0	0	15	0	16	3	0	0	24	8	6	0	9	16	0	2
5:00 PM - 5:15 PM	0	0	0	0	0	0	15	0	9	3	0	0	24	7	6	0	4	17	0	1
5:15 PM - 5:30 PM	0	0	0	0	0	0	17	2	3	2	0	0	19	5	4	0	11	12	0	1
5:30 PM - 5:45 PM	0	0	0	0	0	0	9	1	10	3	0	0	24	4	10	0	5	13	0	1
5:45 PM - 6:00 PM	0	0	0	0	0	0	7	1	11	3	0	0	17	6	3	0	5	14	0	4
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**107**	**5**	**89**	**36**	**0**	**0**	**211**	**52**	**49**	**0**	**64**	**113**	**0**	**16**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
8:00 AM - 9:00 AM	0	0	0	0	0	0	38	1	52	23	0	0	83	21	52	0	36	79	0	50
4:00 PM - 5:00 PM	0	0	0	0	0	0	59	1	56	25	0	0	127	30	26	0	39	57	0	9

	PHF	Trucks
AM	0.824	40.3%
PM	0.862	16.3%



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

JHG Holdings LLC
3506 W Nielsen Ave
Fresno, CA 93706

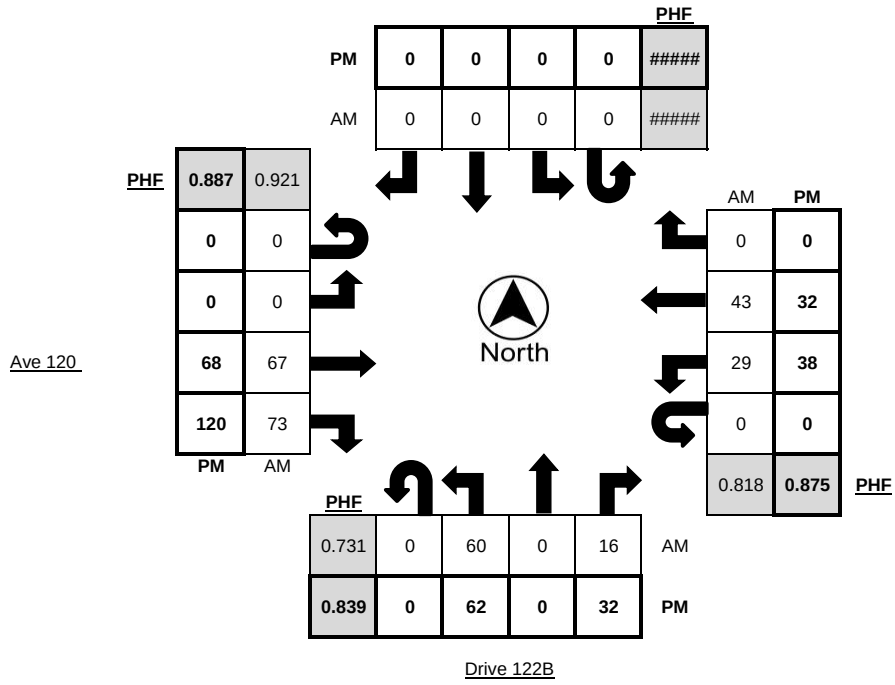
LOCATION Ave 120 @ Drive 122B
LATITUDE 36.0077
COUNTY Tulare
LONGITUDE -119.3000
COLLECTION DATE Tuesday, August 20, 2024
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	0	12	0	1	4	0	0	0	0	0	0	0	18	18	16	0	9	10	0	4
7:15 AM - 7:30 AM	0	13	0	1	3	0	0	0	0	0	0	0	17	19	14	0	5	11	0	7
7:30 AM - 7:45 AM	0	18	0	8	5	0	0	0	0	0	0	0	18	17	15	0	9	13	0	8
7:45 AM - 8:00 AM	0	12	0	4	5	0	0	0	0	0	0	0	12	19	6	0	10	4	0	0
8:00 AM - 8:15 AM	0	17	0	3	2	0	0	0	0	0	0	0	20	18	16	0	5	15	0	13
8:15 AM - 8:30 AM	0	17	0	3	6	0	0	0	0	0	0	0	12	11	10	0	13	8	0	4
8:30 AM - 8:45 AM	0	10	0	4	4	0	0	0	0	0	0	0	10	15	6	0	7	15	0	10
8:45 AM - 9:00 AM	0	14	0	5	3	0	0	0	0	0	0	0	17	18	16	0	6	19	0	14
TOTAL	**0**	**113**	**0**	**29**	**32**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**124**	**135**	**99**	**0**	**64**	**95**	**0**	**60**

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	0	12	0	9	4	0	0	0	0	0	0	0	11	36	6	0	10	8	0	2
4:15 PM - 4:30 PM	0	18	0	10	2	0	0	0	0	0	0	0	21	32	9	0	8	6	0	1
4:30 PM - 4:45 PM	0	18	0	4	3	0	0	0	0	0	0	0	20	25	7	0	10	8	0	0
4:45 PM - 5:00 PM	0	14	0	9	2	0	0	0	0	0	0	0	16	27	3	0	10	10	0	2
5:00 PM - 5:15 PM	0	14	0	5	1	0	0	0	0	0	0	0	17	22	6	0	11	9	0	4
5:15 PM - 5:30 PM	0	15	0	7	2	0	0	0	0	0	0	0	11	24	3	0	10	6	0	1
5:30 PM - 5:45 PM	0	12	0	8	2	0	0	0	0	0	0	0	14	19	8	0	11	6	0	0
5:45 PM - 6:00 PM	0	15	0	2	3	0	0	0	0	0	0	0	11	14	2	0	7	4	0	1
TOTAL	**0**	**118**	**0**	**54**	**19**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**121**	**199**	**44**	**0**	**77**	**57**	**0**	**11**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:15 AM - 8:15 AM	0	60	0	16	15	0	0	0	0	0	0	0	67	73	51	0	29	43	0	28
4:00 PM - 5:00 PM	0	62	0	32	11	0	0	0	0	0	0	0	68	120	25	0	38	32	0	5

	PHF	Trucks
AM	0.867	32.6%
PM	0.926	11.6%



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

JHG Holdings LLC
3506 W Nielsen Ave
Fresno, CA 93706

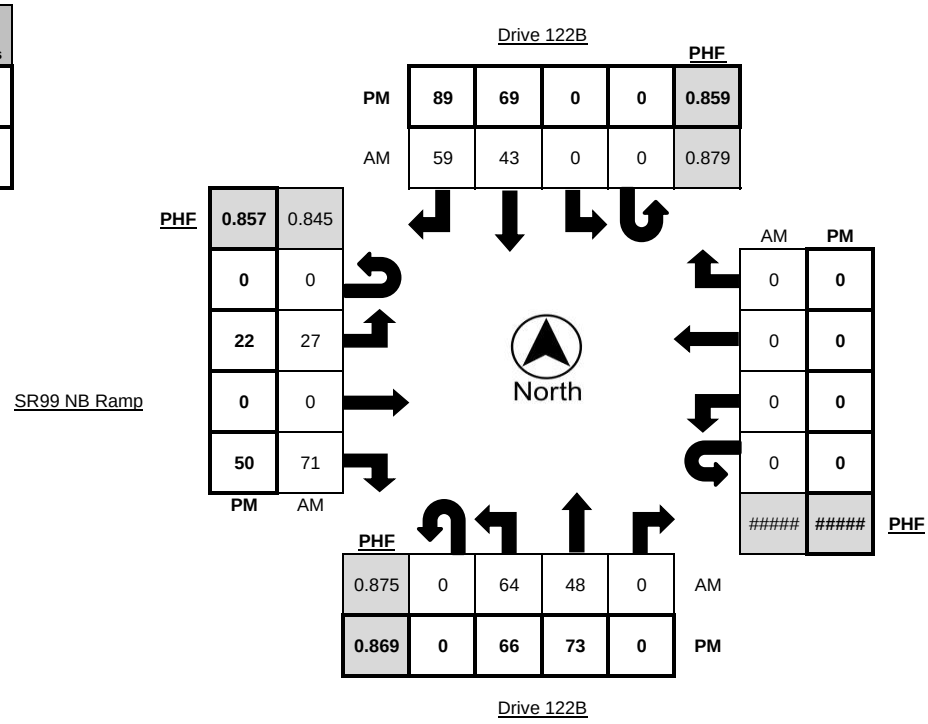
LOCATION SR99 NB Ramps @ Drive 122B
LATITUDE 36.0067
COUNTY Tulare
LONGITUDE -119.3000
COLLECTION DATE Tuesday, August 20, 2024
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	0	13	8	0	3	0	0	12	15	4	0	5	0	11	2	0	0	0	0	0
7:15 AM - 7:30 AM	0	23	9	0	1	0	0	14	9	5	0	4	0	18	2	0	0	0	0	0
7:30 AM - 7:45 AM	0	18	13	0	2	0	0	6	21	3	0	13	0	16	8	0	0	0	0	0
7:45 AM - 8:00 AM	0	10	11	0	5	0	0	12	17	3	0	5	0	15	5	0	0	0	0	0
8:00 AM - 8:15 AM	0	13	15	0	1	0	0	11	12	6	0	5	0	22	2	0	0	0	0	0
8:15 AM - 8:30 AM	0	13	16	0	6	0	0	15	8	5	0	5	0	9	8	0	0	0	0	0
8:30 AM - 8:45 AM	0	10	11	0	2	0	0	11	13	5	0	4	0	5	3	0	0	0	0	0
8:45 AM - 9:00 AM	0	6	11	0	1	0	0	12	12	5	0	8	0	8	4	0	0	0	0	0
TOTAL	**0**	**106**	**94**	**0**	**21**	**0**	**0**	**93**	**107**	**36**	**0**	**49**	**0**	**104**	**34**	**0**	**0**	**0**	**0**	**0**

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	0	21	15	0	4	0	0	19	27	5	0	5	0	11	2	0	0	0	0	0
4:15 PM - 4:30 PM	0	15	22	0	2	0	0	18	22	4	0	5	0	14	1	0	0	0	0	0
4:30 PM - 4:45 PM	0	21	19	0	3	0	0	16	19	6	0	4	0	12	1	0	0	0	0	0
4:45 PM - 5:00 PM	0	9	17	0	1	0	0	16	21	2	0	8	0	13	1	0	0	0	0	0
5:00 PM - 5:15 PM	0	11	7	0	2	0	0	13	19	9	0	9	0	8	2	0	0	0	0	0
5:15 PM - 5:30 PM	0	10	18	0	2	0	0	17	17	3	0	4	0	13	2	0	0	0	0	0
5:30 PM - 5:45 PM	0	15	14	0	2	0	0	12	20	6	0	6	0	14	2	0	0	0	0	0
5:45 PM - 6:00 PM	0	13	11	0	2	0	0	9	12	2	0	6	0	8	2	0	0	0	0	0
TOTAL	**0**	**115**	**123**	**0**	**18**	**0**	**0**	**120**	**157**	**37**	**0**	**47**	**0**	**93**	**13**	**0**	**0**	**0**	**0**	**0**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:15 AM - 8:15 AM	0	64	48	0	9	0	0	43	59	17	0	27	0	71	17	0	0	0	0	0
4:00 PM - 5:00 PM	0	66	73	0	10	0	0	69	89	17	0	22	0	50	5	0	0	0	0	0

	PHF	Trucks
AM	0.897	13.8%
PM	0.941	8.7%



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

Tulare County RMA
5961 S. Mooney Blvd
Visalia, CA 93277

LOCATION Ave 120 (Hesse Ave) @ Rd 124 **LATITUDE** 36.0077

COUNTY Tulare **LONGITUDE** -119.2949

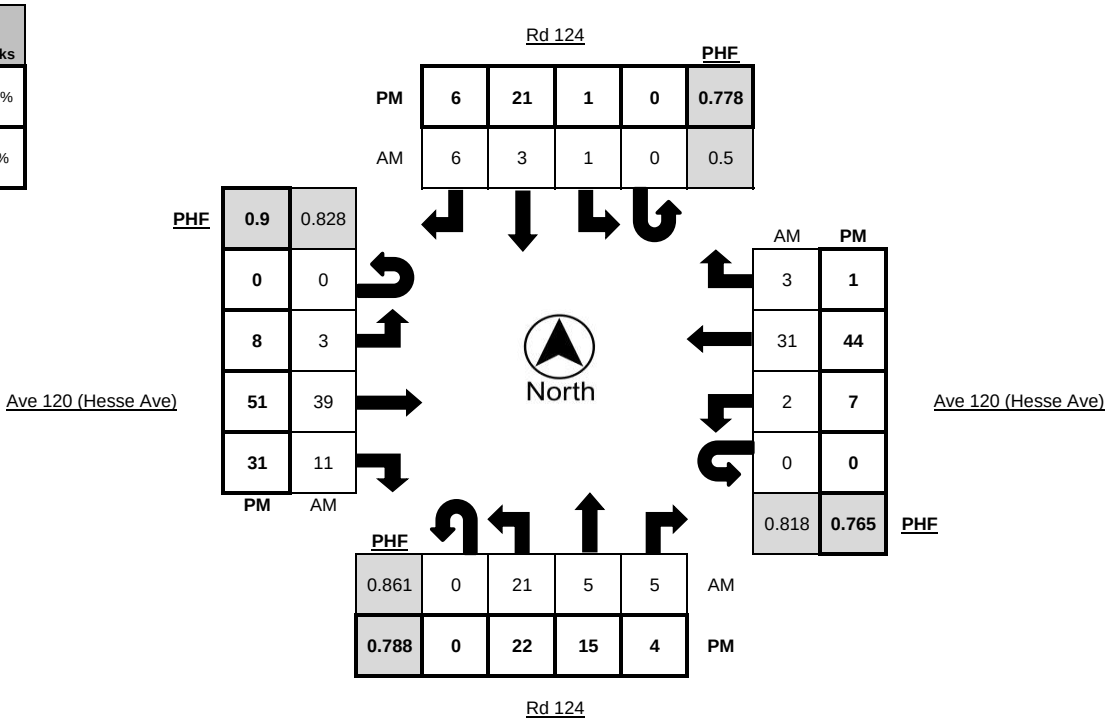
COLLECTION DATE Wednesday, June 25, 2025 **WEATHER** Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	0	5	1	3	0	0	0	0	0	0	0	0	8	4	2	0	0	9	0	1
7:15 AM - 7:30 AM	0	5	1	2	1	0	0	0	1	0	0	0	7	2	1	0	0	11	0	4
7:30 AM - 7:45 AM	0	4	1	1	0	0	0	0	2	0	0	0	8	5	0	0	1	8	2	0
7:45 AM - 8:00 AM	0	7	1	1	0	0	1	0	1	0	0	0	13	2	3	0	1	7	0	2
8:00 AM - 8:15 AM	0	5	2	1	0	0	0	3	2	1	0	3	11	2	5	0	0	5	1	3
8:15 AM - 8:30 AM	0	6	3	1	1	0	0	1	0	0	0	2	7	1	2	0	0	5	0	2
8:30 AM - 8:45 AM	0	7	0	1	1	0	0	1	2	0	0	1	5	4	3	0	0	6	0	2
8:45 AM - 9:00 AM	0	3	1	1	0	0	2	2	0	0	0	0	11	3	5	0	0	11	0	4
TOTAL	**0**	**42**	**10**	**11**	**3**	**0**	**3**	**7**	**8**	**1**	**0**	**6**	**70**	**23**	**21**	**0**	**2**	**62**	**3**	**18**

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	0	7	4	0	0	0	0	7	2	0	0	3	11	7	2	0	1	14	0	4
4:15 PM - 4:30 PM	0	6	5	2	0	0	0	4	2	0	0	1	12	6	1	0	3	9	1	1
4:30 PM - 4:45 PM	0	5	4	1	0	0	1	5	1	0	0	2	16	7	5	0	1	16	0	3
4:45 PM - 5:00 PM	0	4	2	1	0	0	0	5	1	1	0	2	12	11	0	0	2	5	0	1
5:00 PM - 5:15 PM	0	7	3	2	0	0	0	5	0	0	0	2	10	11	3	0	1	12	0	4
5:15 PM - 5:30 PM	0	5	1	2	1	0	0	1	2	0	0	4	10	10	2	0	0	8	3	2
5:30 PM - 5:45 PM	0	6	3	3	1	0	0	1	1	0	0	2	10	5	1	0	0	3	1	0
5:45 PM - 6:00 PM	0	3	5	1	0	0	0	2	2	0	0	0	13	8	3	0	1	9	0	1
TOTAL	**0**	**43**	**27**	**12**	**2**	**0**	**1**	**30**	**11**	**1**	**0**	**16**	**94**	**65**	**17**	**0**	**9**	**76**	**5**	**16**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:15 AM - 8:15 AM	0	21	5	5	1	0	1	3	6	1	0	3	39	11	9	0	2	31	3	9
4:00 PM - 5:00 PM	0	22	15	4	0	0	1	21	6	1	0	8	51	31	8	0	7	44	1	9

	PHF	Trucks
AM	0.929	15.4%
PM	0.894	8.5%



ATTACHMENT H

Mitigation and Monitoring Reporting Program (MMRP)

DRAFT

MITIGATION MONITORING AND REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP) has been prepared in compliance with State law and based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) for the Pixley Travel Center.

The CEQA Public Resources Code Section 21081.6 requires the Lead Agency decision making body is going to approve a project and certify the MND that it also adopts a reporting or monitoring program for those measures recommended to mitigate or avoid significant/adverse effects of the environment identified in the MND. The law states that the reporting or monitoring program shall be designed to ensure compliance during project implementation. The MMRP is to contain the following elements:

- **Action and Procedure.** The mitigation measures are recorded with the action and procedure necessary to ensure compliance. In some instances, one action may be used to verify implementation of several mitigation measures.

- **Compliance and Verification.** A procedure for compliance and verification has been outlined for each action necessary. This procedure designates who will take action, what action will be taken and when and by whom compliance will be monitored and reported and to whom it will be report. As necessary the reporting should indicate any follow-up actions that might be necessary if the reporting notes the impact has not been mitigated.

- **Flexibility.** The program has been designed to be flexible. As monitoring progresses, changes to compliance procedures may be necessary based upon the recommendations by those responsible for the MMRP. As changes are made, new monitoring compliance procedures and records will be developed and incorporated into the program.

The following presents the Mitigation Measures identified for the proposed Project in this MND. Each Mitigation Measure is identified by the impact number. For example, MM BIO-1 would be the first Mitigation Measure identified in the Biological analysis of the MND.

The first column of the MMRP Table identifies the Mitigation Measure. The second column, “Timing/Frequency,” identifies the time the Mitigation Measure should be initiated and identifies the frequency of the monitoring that should take place to assure the mitigation is being or has been implemented to achieve the desired outcome or performance standard. The third column, “Action Indicating Compliance,” identifies the requirements of compliance with the Mitigation Measure. The fourth column, “Monitoring Agency,” names the party ultimately responsible for ensuring that the Mitigation Measure is implemented. The fifth column, “Person/Agency Conducting Monitoring/Reporting” names the party/agency/entity responsible for verification that the Mitigation Measure has been implemented. The last three columns will be used by the County of Tulare to ensure that individual Mitigation Measures have been complied with and monitored.

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person Responsible for Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
BIOLOGICAL RESOURCES							
MM-BIO-1. Pre-construction Survey –Plant Species: A qualified biologist/botanist shall conduct pre-construction surveys for special status plant species in accordance with the California Department of Fish and Wildlife (CDFW) *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (2009). This protocol includes identification of reference populations to facilitate the likelihood of field investigation occurring during the appropriate floristic period. Surveys should be timed to coincide with flowering periods for species that could occur (March-May). In the absence of protocol-level surveys being performed, additional surveys may be necessary. • If special status plant species are not identified during pre-construction surveys, no further action is required. • If special status plant species are detected during preconstruction surveys, plant population shall be avoided with the establishment of a minimum 50-foot no disturbance buffer from the outer edge of the plant population. If buffers cannot be maintained, the Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW shall be contacted immediately to identify the	Once within 30 days of construction, a pre-construction survey results in new recommendations for further study and mitigation. Then mitigation should occur as recommended following coordination with Tulare County RMA.	Field Survey and Report submitted to Tulare County RMA prior to construction.	County of Tulare	Qualified Biologist			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person Responsible for Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
appropriate minimization actions to be taken as appropriate for the species identified and to determine permitting needs.							
MM BIO-2. Pre-construction Survey –Animal Species: A qualified biologist will conduct pre-construction surveys during the appropriate periods for special status animal species in accordance with the CDFW guidance and recommendations identified below (see measures MM BIO-4, MM BIO-9, MM BIO-10). In the absence of protocol-level surveys being performed, additional surveys may be necessary. If special status animal species are not identified during pre-construction surveys, no further action is required. If special status animal species are detected during pre-construction surveys, the Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW shall be contacted immediately to identify the appropriate avoidance and minimization actions to be taken as applicable for the species identified and to determine incidental take permitting needs.	Prior to start of construction, unless pre-construction survey results in recommendation for further study and mitigation, mitigation should occur as recommended following coordination with CDFW and Tulare County RMA.	Field Survey and Report submitted to Tulare County RMA prior to construction.	County of Tulare	Qualified Biologist			
All Identified Special Status Species							
MM BIO-3: Employee Education Program: Prior to the start of construction, the applicant shall retain a qualified biologist/botanist to conduct a tailgate meeting to train all construction staff that will be involved with the project on the special status species that occur, or may occur, on the project site. This training will include a	Prior to construction-related activities if special status species are detected.	Meeting conducted by Qualified Biologist working with USFS and/or CDFW; meeting sign-in sheet submitted to	County of Tulare	County of Tulare, Qualified Biologist			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person Responsible for Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
description of the species and its habitat needs; a report of the occurrence of the species in the project area; an explanation of the status of the species and its protection under the Endangered Species Act; a list of the measures being taken to reduce impacts to the species during project construction and implementation.		Tulare County RMA.					
Nesting Raptors and Migratory Birds (including Loggerhead Shrike and Tricolored Blackbird)							
MM BIO-4: Pre-construction Survey: If project activities must occur during the nesting season (February 1-August 31), the project proponent and/or their contractor are responsible for ensuring that implementation does not violate the Migratory Bird Treaty Act or relevant Fish and Game Code. A qualified biologist shall conduct pre-construction surveys for active bird nests within 10 days of the onset of these activities. Nest surveys will include all accessible areas on the project site and within 250 feet of the site for tricolored blackbird, loggerhead shrike and other migratory birds, and within 500 feet for all nesting raptors and migratory birds; except for the Swainson's hawk. The Swainson's hawk survey will utilize the Swainson's Hawk Technical Advisory Committee *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (2000) methodology and will extend to ½-mile outside of work area boundaries. Inaccessible areas will be scanned	Prior to construction-related activities.	As needed if special status species are detected.	County of Tulare	Qualified biologist			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person Responsible for Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
with binoculars or spotting scope, as appropriate. If no nesting pairs are found within the survey area, no further mitigation is required.							
MM BIO-5: Avoidance: In order to avoid impacts on nesting birds, construction will occur, where possible, outside the nesting season (between September 1st and January 31st).	Prior to the start of construction.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable.	County of Tulare Planning Department	Field survey by a Qualified Biologist			
MM BIO-6: Buffers: If active nests are found within the survey areas a qualified biologist will establish appropriate no-disturbance buffers based on species tolerance of human disturbance (for example, for tricolored blackbird, no less than 60 feet), baseline levels of disturbance, and barriers that may separate the nest from construction disturbance. These buffers will remain in place until the breeding season has ended or until the qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival.	Prior to and during construction-related activities. On-going.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable.	County of Tulare Planning Department	Qualified Biologist			
MM BIO-7: Compensatory Mitigation: If Swainson's hawks are determined to be nesting within ½ mile of alfalfa fields, wheat fields, or other high-quality foraging habitat on an individual project site, as determined by nesting	Prior to and during construction-related activities. On-going	Retention of professional biologist/ongoing monitoring/ submittal of Report	County of Tulare Planning Department	Qualified Biologist			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person Responsible for Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
surveys conducted during the nesting season immediately prior to the start of construction (MM BIO-1), loss of foraging habitat will be compensated through the purchase of credits from an approved mitigation bank, the preservation of on-site habitats, or the acquisition and preservation of off-site habitats. Habitat suitable for the Swainson's hawk will be preserved at a ratio of one acre of habitat preserved for each acre of habitat permanently disturbed by project construction within ½ mile of the nest. The preservation lands will be protected in perpetuity by conservation easement.		of Findings, if applicable.					
MM BIO-8: Mortality Reporting: The Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW will be contacted immediately by phone and in writing within three days in the event of accidental death or injury of a special status bird species during project-related activities. Notification must include the date, time, location of the incident or of the finding of a dead or injured animal, and any other pertinent information.	During construction.	As needed during construction.	County of Tulare	Determination by Qualified Biologist			
An Andrenid Bee							
MM BIO-9: ***(Habitat Assessment)*** Prior to initiation of ground-disturbing activities, a qualified biologist shall conduct a habitat assessment to evaluate the likelihood of Andrenid bees (Andrena spp.) occurring within and adjacent to the project area. The	Prior to construction-related activities.	As needed if special status species are detected.	County of Tulare	Qualified Biologist			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person Responsible for Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
assessment will document: (1) Presence of suitable nesting habitat (sandy or loose, well-drained soils, open bare ground patches, soil compaction levels). (2) Availability of foraging resources (flowering plants present, floral diversity, percent cover, blooming periods). (3)Landscape features that could support nesting or overwintering (e.g., field edges, un-vegetated patches, or transitional habitats).							
MM BIO-10: Avoidance and Minimization: ***(Pre-Construction Surveys)*** If suitable habitat is present, pre-construction surveys shall be conducted by a qualified biologist during the Andrenid active season (spring to early summer; specific timing dependent on regional conditions). At least three surveys shall be conducted within the Colony Active Period, spaced 2–4 weeks apart, on warm (65–90°F), low-wind (<8 mph), sunny days with peak bloom present. Surveys shall follow CDFW and Xerces Society protocols, with non-lethal photo vouchers (clear multi-angle photos) collected for identification. Capture and handling, if required, may only be conducted by individuals holding the necessary permits/MOU from CDFW.	Prior to start of construction-related activities and during.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable.	County of Tulare Planning Department and/or CDFW	Qualified Biologist			
MM BIO-11: ***(Avoidance)*** Where feasible, project construction will occur outside of the Andrenid bee active season. If construction must occur during the active season, avoidance measures will include: (1) Flagging and	During construction.	As needed during construction.	County of Tulare	Determination by Qualified Biologist			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person Responsible for Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
preserving patches of bare ground identified as active nesting areas. (2) Avoiding disturbance to soil within known or potential nesting areas. (3) Scheduling high-disturbance activities away from flowering resource patches during peak bloom.							
MM BIO-12: ***(Buffers)*** If active nesting sites are confirmed, a qualified biologist shall establish appropriate no-disturbance buffers around active nests. Buffer size shall be determined based on the extent of the nesting aggregation, site-specific conditions, and sensitivity to disturbance, but shall be no less than 50 feet from the nearest active nest. Buffers shall remain in place until the biologist confirms nest inactivity or the end of the active season.	Prior to and during construction-related activities. On-going	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable.	County of Tulare Planning Department	Qualified Biologist			
MM BIO-13: ***(Compensatory Mitigation, if Required)*** If avoidance is not feasible and project activities will result in the loss of suitable Andrenid bee nesting or foraging habitat, compensatory mitigation may be required. Options include: (1) Creation/preservation of nesting habitat through soil management (maintaining bare ground areas). (2) Enhancement of foraging habitat through planting of native flowering species that bloom across the active season. (3) Purchase of credits from a CDFW-approved pollinator habitat mitigation bank, if available.	Prior to and during construction-related activities. On-going	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable.	County of Tulare Planning Department	Qualified Biologist			
MM BIO-14: ***(Monitoring and Reporting)*** A qualified biological monitor shall be present	During construction	Retention of professional	County of Tulare	Qualified			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person Responsible for Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
during ground-disturbing activities occurring in suitable habitat during the active season. The monitor will ensure compliance with buffers, avoidance areas, and survey protocols. If any special-status ndrenid bees are observed or impacted, the Sacramento Field Office of USFWS and Fresno Field Office of CDFW shall be notified by phone immediately and in writing within three days. Notification will include date, time, location, circumstances, and photographs of the individual or nest. Survey data and monitoring results will be submitted to CNDDB.		biologist/ongoing monitoring/ submittal of Report of Findings, if applicable.	Planning Department	Biologist			
CULTURAL RESOURCES							
MM CUL-1. Discovery: In the event that historical resources are discovered during site excavation, the County shall require that grading and construction work on the Project site be immediately suspended until the significance of the features can be determined by a qualified archaeologist. In this event, the property owner shall retain a qualified archaeologist, or other qualified specialist as deemed appropriate by Tulare County, to provide recommendations for measures necessary to protect any site determined to contain or constitute an historical resource, a unique archaeological resource, or a unique paleontological resource or to undertake data recover, excavation analysis, and curation of archaeological or paleontological materials. County staff shall consider such	Prior to issuance of grading permits Ongoing monitoring during subsurface excavation	Retention of professional archeologist / ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare RMA	County of Tulare, Qualified Archaeologist or Paleontologist			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person Responsible for Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
recommendations and implement them where they are feasible considering Project design as previously approved by the County.							
MM CUL-2- Avoidance, Preservation, and Treatment: The property owner shall avoid and minimize impacts to archaeological resources. If a potentially significant archaeological resource is encountered during ground disturbing activities, all construction within a 100-foot radius of the find shall immediately cease until a qualified archaeologist determines whether the resources requires further study. The owner shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The archaeologist shall notify the Tulare County Resource Management Agency and the project proponent of the procedures that must be followed before construction is allowed to resume at the location of the find. If the find is determined to be significant and the Tulare County Resource Management Agency determines avoidance is not feasible, the archaeologist shall design and implement a data recovery plan consistent with applicable standards. The plan shall be submitted to the Tulare County Resource Management Agency for review and approval. Upon approval, the plan shall be incorporated into the project.	Prior to issuance of grading permits Ongoing monitoring during subsurface excavation	Retention of professional archeologist / ongoing monitoring/ submittal of Report of Findings, if applicable .	County of Tulare RMA	County of Tulare, Qualified archeologist			
MM CUL-3. Implementation of Health and	Prior to issuance of	Retention of	County of	County of Tulare,			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person Responsible for Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
Safety Code. Consistent with Section 7050.5 of the California Health and Safety Code and (CEQA Guidelines) Section 15064.5, if human remains of Native American origin are discovered during project construction, it is necessary to comply with State laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (Public Resources Code Sec. 5097). In the event of the accidental [that is, unanticipated] discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken: 1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until: a. The Tulare County Coroner/Sheriff must be contacted to determine that no investigation of the cause of death is required; and b. If the coroner determines the remains to be Native American: i. The coroner/sheriff shall contact the Native American Heritage Commission within 24 hours. ii. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.	grading permits Ongoing monitoring during subsurface excavation .	professional archeologist / ongoing monitoring/ submittal of Report of Findings, if applicable	Tulare RMA	Qualified archeologist			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person Responsible for Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
iii. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains, and any associated grave goods as provided in Public Resources Code section 5097.98, or 2. Where the following conditions occur, the landowner or his/her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance. a. The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission. b. The descendant fails to make a recommendation; or c. The landowner or his authorized representative rejects the recommendation of the descendent.							
GEOLOGY/SOILS (PALEONTOLOGICAL RESOURCES)							
MM GEO-1 In the event that archeological or paleontological resources are discovered during	Prior to issuance of grading permits	Retention of professional	County of Tulare RMA	County of Tulare, Qualified			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person Responsible for Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
site excavation, the County shall require that grading and construction work on the project site be suspended until the significance of the features can be determined by a qualified archaeologist or paleontologist. The County will require that a qualified archeologist/paleontologist make recommendations for measures necessary to protect any site determined to contain or constitute an historical resource, a unique archaeological resource, or a unique paleontological resource or to undertake data recovery, excavation, analysis, and curation of archaeological or paleontological materials. County staff shall consider such recommendations and implement them where they are feasible in light of project design as previously approved by the County.	Ongoing monitoring during subsurface excavation	paleontologist/ ongoing monitoring/ submittal of Report of Findings, if applicable		Archaeologist or Paleontologist			
HAZARDS AND HAZARDOUS MATERIALS							
MM HAZ-1 – Prior to the commencement of operations, the applicant shall prepare and implement a Hazardous Materials Business Plan (HMBP) and a Spill Prevention, Control, and Countermeasure (SPCC) Plan in accordance with state and federal requirements (California Health and Safety Code §25500 et seq.; 40 CFR Part 112).							
MM HAZ-2 – Prior to operation of the Travel Center, the applicant shall prepare and implement an Emergency Response and Spill Contingency Plan in coordination with the							

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person Responsible for Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
Tulare County Environmental Health Division, Tulare County Fire Department, Tulare County Sheriff's Department, CHP and other applicable agencies.							
TRANSPORTATION							
MM TR-1: Participate with pro-rata share of 60.85% and 72.86% at Avenue 120/State Route 99 SB ramps and at Avenue 120/Drive 122B (State Route 99 NB on/off ramps), respectively, for construction of traffic signals.			County of Tulare Planning and Public Works Department				
MM TR-2 – Construct left turn lanes on all approaches of the Avenue 120/Road 124 intersection and preserve right-of-way for future construction of a traffic signal.							
MM TR-3 – Construct two-way left turn-land along the southern frontage of property between County Drive 122B and Road 124.							
TRIBAL CULTURAL RESOURCES							
MM TRI-1 In the event that historical, archaeological or paleontological resources are discovered during site excavation, the County shall require that grading and construction work on the Project site be immediately suspended until the significance of the features can be determined by a qualified archaeologist or paleontologist. In this event, the property owner shall retain a qualified archaeologist/paleontologist to provide recommendations for measures necessary to	Prior to issuance of grading permits Ongoing monitoring during subsurface excavation	Retention of professional archeologist / ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning Department	County of Tulare, Qualified Archaeologist or Paleontologist			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person Responsible for Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
protect any site determined to contain or constitute an historical resource, a unique archaeological resource, or a unique paleontological resource or to undertake data recover, excavation analysis, and curation of archaeological or paleontological materials. County staff shall consider such recommendations and implement them where they are feasible in light of Project design as previously approved by the County.							
MM TRI-2 Consistent with Section 7050.5 of the California Health and Safety Code and (CEQA Guidelines) Section 15064.5, if human remains of Native American origin are discovered during project construction, it is necessary to comply with State laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (Public Resources Code Sec. 5097). In the event of the a ccidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken: 1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until: a. The Tulare County Coroner/Sheriff must be contacted to determine that no investigation of the cause of death is required; and	Prior to issuance of grading permits Ongoing monitoring during subsurface excavation	Retention of professional archeologist / ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning Department	County of Tulare, Qualified Archaeologist or Paleontologist			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person Responsible for Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
b. If the coroner determines the remains to be Native American: i. The coroner shall contact the Native American Heritage Commission within 24 hours. ii. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American. iii. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code section 5097.98, or 2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance. a. The Native American Heritage Commission is unable to identify a most likely descendent or the most							

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person Responsible for Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
likely descendent failed to make a recommendation within 24 hours after being notified by the commission. b. The descendant fails to make a recommendation; or c. The landowner or his authorized representative rejects the recommendation of the descendent.							