Rezone R2024-004

Initial Study and Mitigated Negative Declaration

October 2024

PREPARED BY:

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INITIAL STUDY

This Initial Study was prepared pursuant to the California Environmental Quality Act (CEQA) Public Resources Code Sections 21000 *et seq*., CEQA Guidelines Title 14, Section 15000 et seq. of the California Code of Regulations.

PROJECT TITLE:	R2024-004
LEAD AGENCY NAME AND ADDRESS:	City of Clovis Planning & Development Services 1033 Fifth Street Clovis, CA 93612
CONTACT PERSON AND PHONE NUMBER:	Lily Cha, Senior Planner (559) 324-2335 lilyc@cityofclovis.com
PROJECT LOCATION:	Area West of Clovis Avenue between Magill and Sierra Avenues APN(s): 491-030-18,20T,23,28,40,67,70T,71; 491-110-02,24,25,29,30,35,39,42,43; 491-113-13,18,21T,29,33S
PROJECT SPONSOR'S NAME AND ADDRESS:	Legacy Realty and Development 5390 E. Pine Fresno, CA 93727
LAND USE DESIGNATION:	General Commercial
ZONING DESIGNATION:	Planned Commercial Center (PCC)
PROJECT DESCRIPTION	See page 7 of this Initial Study
SURROUNDING LAND USES AND SETTING:	See page 7 of this Initial Study
REQUIRED APPROVALS:	See page 10 of this Initial Study
HAVE CALIFORNIA NATIVE AMERICAN TRIBES REQUESTED CONSULTATION? IF SO, HAS CONSULTATION BEGUN?	N/A

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LIST OF FIGURES

A. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, as indicated by the checklist and corresponding discussion in this Initial Study.

☒ Aesthetics	☐ Agriculture & Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Energy
☒ Geology & Soils	☐ Greenhouse Gas Emissions	☐ Hazards & 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

Determination

On the basis of this initial evaluation:

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

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

☐ I find that the proposed Project MAY have a significant effect on the environmental, and an ENVIRONMENTAL IMPACT REPORT (EIR) will be prepared.

☐ I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environmental, 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 EIR 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 analyzed 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.

Prepared By:

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10/2/2024
Date

Approved By:

Renee Mathis 2024.10.02 16:26:44-07'00'

Renee Mathis, Director
Planning & Development Services
City of Clovis

Date

B. PROJECT OVERVIEW

Legacy Realty and Development (applicant) proposes to amend the Tuscan Village Planned Commercial Center(PCC), thereby renaming the center to the Golden Triangle, updating the Master Plan District standards and guidelines, and updating the preliminary development plan. Should the Council approve this amendment, a final development plan will be processed in phases through the site plan review process at the discretion of the Planning and Development Services Director. The Golden Triangle makes up approximately 32.20 acres and is situated on the west side of Clovis Avenue between Magill and Sierra Avenues in the City of Clovis, California. The project shall be referred to throughout the document as "proposed Project" and/or "Project." Details regarding the Project are described more within this document, beginning under Section E.

C. PROJECT LOCATION

As shown in Figure 1 below, the Project is located on the west side of Clovis Avenue between Magill and Sierra Avenues and is approximately 32.20 acres in area. The Project pertains to multiple parcels with Accessor's Parcel Numbers (APNs): 491-030-18,20T,23,28,40,67,70T,71; 491-110-02,24,25,29,30,35,39,42,43; 491-113-13,18,21T,29,33S.

D. EXISTING SETTING

This section describes the existing conditions, surrounding conditions, as well as the General Plan land use and zoning designations.

1. EXISTING CONDITIONS

As shown in Figure 1 below, the Project site has been partially developed under the Tuscan Center PCC. This includes existing developments and uses that predate the center. The existing developments consist of a hotel, several office and retail buildings, an auto dealership, and two currently occupied residences. One of the residences also has a vehicle storage operation associated with it. These residences and the vehicle storage operation predate the PCC allowance and may remain until redevelopment occurs. Recently, a site plan review (PL-SPR-24-00005) was approved for the development of a second hotel. The rest of the site remains undeveloped

2. SURROUNDING CONDITIONS

Table 1 refers to the surrounding land uses which includes a combination of residential, commercial, park, and freeway 168.

Table 1: Surrounding Land Uses

	Land Use Designation	Existing Zoning*	Existing Land Use
North	General Commercial	P-C-C	Commercial Center
East	General Commercial	C-2	Commercial/ Retail
South	Mixed Use Village	R-1 / R-3	Single-Family Residences/ Park
West	Open Space/Medium Density Residential	R-1	Trail / Single-Family Residence
*R-1 (Single-Family Residential), R-3 (Multifamily-High Density), P-C-C (Planned Commercial Center), C-2 (Community Commercial),			

3. LAND USE DESIGNATION

As illustrated in Figure 2, the Project site currently has a General Plan Land Use designation of General Commercial. This designation allows for community or regional scale centers that can be anchored by large-format stores, as well as a variety of retail outlets, restaurants, and

entertainment venues. Hotels and motels are also considered appropriate within this land use category.

4. ZONING DESIGNATION

As illustrated in Figure 3, the Project site is currently zoned PCC (Planned Commercial Center). This zoning district applies to shopping facilities within a planned center, promoting innovative designs that create a superior environment compared to conventional commercial developments. It permits all uses typically associated with commercial centers, provided they are part of an approved development plan. The PCC district does not require the specification of particular uses, except to differentiate categories of uses that have distinct parking requirements or special design considerations.

E. PROJECT DESCRIPTION

The proposed Project involves amending the development plan for an existing planned commercial center. This approximately 33-acre center is partially developed and classified as in-fill development. The updated plan aims to modify the overall site layout and establish planning areas with specific development standards and designated land uses. The original PCC approval planned for approximately 416,000 square feet of commercial and office development. Approximately 15 acres of the center has been developed. This amendment will result in a new total area of approximately 357,285 square feet of commercial and office space, of which approximately 84,032 square feet is existing. As previously mentioned, two residences, an associated vehicle storage facility, and an existing auto dealership are currently on site and will be removed when redevelopment occurs.

This section describes the components of the proposed Project in more detail, including site preparations, proposed structures, and on- and off- site improvements.

1. PROJECT ENTITLEMENTS

The Project involves a rezone amendment to modify the development plan for the existing planned commercial center. If approved, subsequent site plan reviews with the planning and development services department will ensure that the site's development aligns with the updated development plan.

2. PROJECT CONSTRUCTION AND PHASING

The Project is expected to be constructed incrementally, as each parcel has a different property owner with varying timelines. The first phase of development includes properties owned by a single individual and encompasses 133,963 square feet of buildings. This phase covers approximately 15 acres of centrally located properties within the center’s boundary. Development will begin with Building C, with construction anticipated to start as early as January 2025, followed shortly by the remaining sites within this phase. The other sites outside the first phase will require site plan review approval before construction can begin and will proceed as property owners express interest in development.

3. SITE PREPARATION

The Project involves amending the development plan for the entire center, with development occurring incrementally through the site plan review process. As development progresses, individual sites will need to be prepared, which includes removing some existing structures, vegetation, and trees, as well as grading the land. For the development of Building C, the developer will be responsible for undergrounding the existing canal (West Branch Clovis Ditch) adjacent to the Palo Alto alignment.

4. PROJECT COMPONENTS

This section describes the overall components of the Project, such as the proposed buildings, landscape, vehicle and pedestrian circulation, and utilities.

DEMOLITION

The initial phase of development will require the demolition of some existing accessory structures. The redevelopment of three specific sites in future phases will necessitate building demolition. These structures include existing residences, outbuildings, and an auto dealership with a garage.

CONCEPTUAL SITE LAYOUT AND ELEVATIONS

This Project involves amending the development plan for an existing planned commercial center and developing a portion of the center. The updated overall site plan, shown in Figure 4, includes the previously approved existing buildings (4) on approximately 15 acres and 17 proposed buildings on the remaining approximately 18 acres. Associated site improvements include driveways illustrating circulation, parking, and landscaping.

The Project establishes general design and architectural guidelines for future development. The overarching theme is contemporary or modern architecture including the use of geometric forms, with materials such as glass, steel, concrete, and stone. Individual developments will be evaluated through the site plan review process by Planning staff to ensure consistency with the development plan and compatibility with the existing buildings.

SITE CIRCULATION AND PARKING

The Project will have multiple points of ingress and egress from both Clovis and Magil Avenues. There will be four driveways along Clovis Avenue, including one gated driveway for a planned car dealership. Access from Magil Avenue will include two points, with an additional gated driveway for a dealership. The primary access to the site is via a centrally located major driveway on Clovis Avenue following the Palo Alto Avenue alignment. Three of the planned driveways currently exist and are in use by the existing developments. The site will also feature pedestrian walkways from Clovis Avenue, Magil Avenue, and the Clovis Rail Trail, ensuring pedestrian connectivity throughout the development.

While the development will primarily offer shared parking among the various buildings, parking has been allocated by land use to ensure adequate availability. The land uses considered for parking requirements include commercial, vehicle sales, vehicle repair, office, and hotel. Based on the building square footage and specific uses approximately 1,067 parking stalls are required. The development proposes 1,306 parking spaces, exceeding the minimum requirement. The four planned vehicle dealerships will provide separate inventory parking within gated areas that are not accessible to the public. Parking standards will be detailed in the development plan for the PCC.

LANDSCAPE

The Project will implement a comprehensive landscaping plan for the entire center, to be applied incrementally as development progresses. Each development phase will be responsible for providing necessary landscaping on-site and in the immediate vicinity. The landscaping will include trees, shrubs, ground cover, and associated irrigation and utilities along both the project perimeter and internally. As new developments are proposed, each site will undergo a site plan review process to ensure consistency with the approved landscaping plan.

UTILITIES

The site will be equipped with utilities including water, sewer, electric, cable, gas, and stormwater infrastructure. Installing these utilities will require minor trenching and digging activities typical of development projects. All utility plans must be reviewed and approved by the appropriate agencies or departments to ensure compliance with relevant codes and regulations. Additionally, new fire hydrants will be installed as required by the City of Clovis Fire Department.

Utilities will be provided and managed by a combination of agencies. The Fresno Irrigation District (FID) supplies the city's water, which is then distributed to customers by the City of Clovis. The Fresno Metropolitan Flood Control District (FMFCD) is responsible for stormwater management. The City's public utilities department handles solid waste collection and sewer services. Pacific Gas & Electric (PG&E) provides electricity and natural gas within the City of Clovis.

F. REQUIRED PROJECT APPROVALS

The City of Clovis requires the following review, permits, and/or approvals for the proposed Project; however, other approvals not listed below may be required as identified throughout the entitlement process:

- Rezone
- Site Plan Review
- Grading Permit
- Building Permit
- Sign Permit
- San Joaquin Air Pollution Control District
- Fresno Metropolitan Flood Control District
- Fresno Irrigation District

G. TECHNICAL STUDIES

The analysis of the Project throughout this Initial Study relied in part on the technical studies listed below prepared for the Project, as well as other sources, including, but not limited to, the 2014 Clovis General Plan EIR, departmental staff, California Department of Conservation, and the California Department of Toxic Control Substances.

- **Appendix A:** Air Quality and Greenhouse Gas Analysis Memorandum dated May 2024
- **Appendix B:** Biological Resources Assessment dated February 2024
- **Appendix C:** Cultural Resources Report dated October 2023
- **Appendix D:** Noise Memorandum dated May 2024
- **Appendix E:** Vehicle Miles Traveled Analysis dated May 2024

Figure 1: Project Location and Existing Conditions

Figure 2: General Plan Land Use Designations

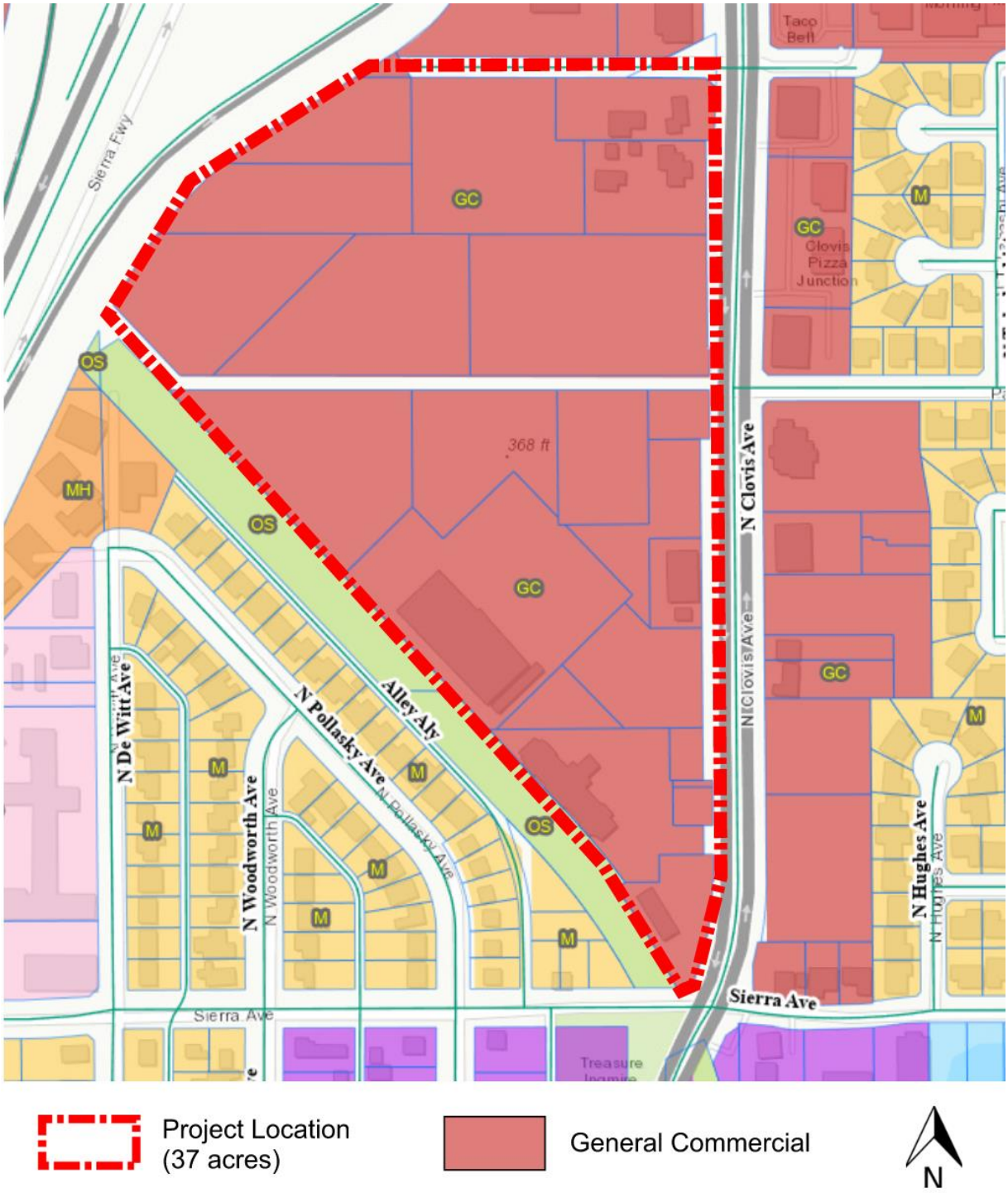


Figure 3: Zoning

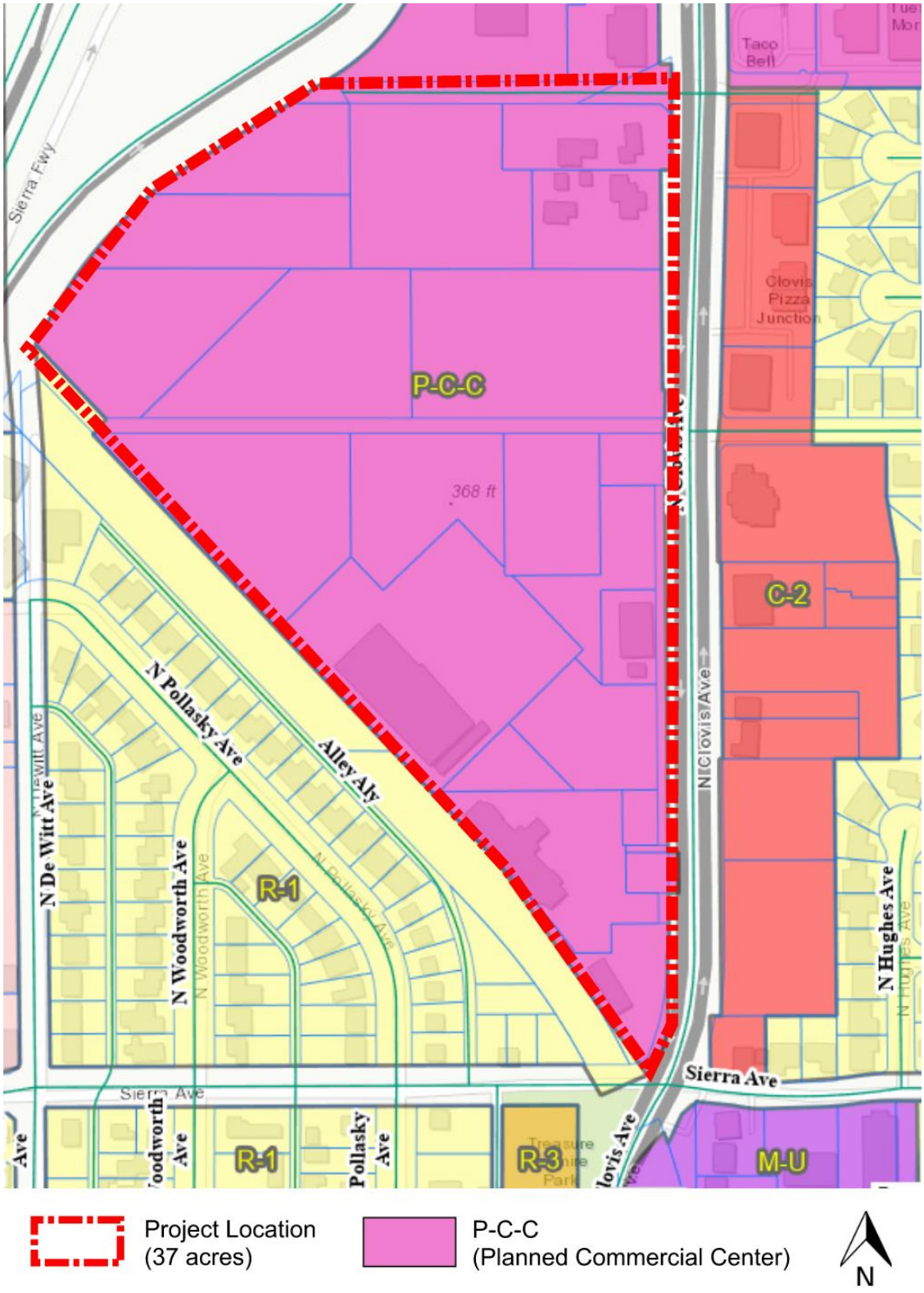
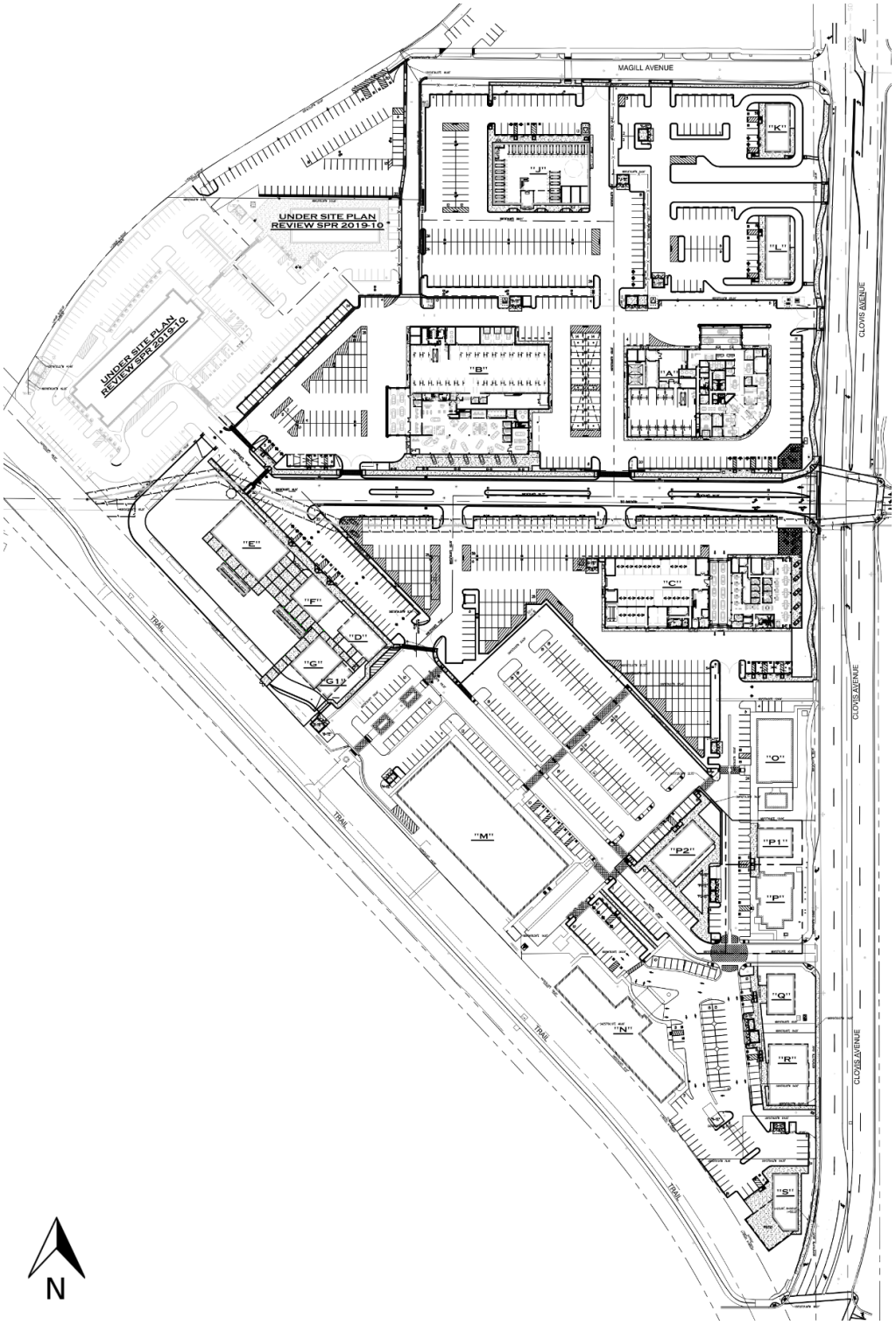


Figure 4: Conceptual Site Plan



H. ENVIRONMENTAL CHECKLIST

This section provides an evaluation of the potential environmental impacts of the proposed project and are based on CEQA Guidelines Appendix G. For each issue area, one of four conclusions is made:

- **No Impact**: No project-related impact to the environment would occur with project development.
- **Less Than Significant Impact:** The proposed project would not result in a substantial and adverse change in the environment. This impact level does not require mitigation measures.
- **Less Than Significant with Mitigation Incorporated**: The proposed project would result in an environmental impact or effect that is potentially significant, but the incorporation of mitigation measure(s) would reduce the project-related impact to a less than significant level.
- **Potentially Significant Impact**: The proposed project would result in an environmental impact or effect that is potentially significant, and no mitigation can be identified that would reduce the impact to a less than significant level**.**

1. AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial effect on a scenic vista?			X	
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c. 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?			X	
d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?		X		

ENVIRONMENTAL SETTING

The City of Clovis is located within the San Joaquin Valley. Thus, much of the City and its surrounding areas are predominately flat. As a result, on clear days, the Sierra Nevada Mountains are visible to the east depending on your location. Aside from Sierra Nevada, there are no officially designated focal points or viewsheds within the City. However, Policy 2.3, Visual Resources, of the Open Space Element of the

2014 Clovis General Plan, requires maintaining public views of open spaces, parks, and natural features and to preserve Clovis' viewshed of the surrounding foothills.

The Project site is centrally located in urbanized Clovis, specifically at the northwest corner of Clovis and Sierra Avenues. It is surrounded by existing development, including freeway 168 and the Clovis Old Town Trail to the west, residential areas to the south and west, and commercial developments to the north and east. Additionally, there is a park located to the south of the site, across Sierra Avenue. The area features a mix of development types and uses, along with typical infrastructure such as a trail, a freeway, roadways, streetlights, parking lot lights, and ambient light sources. The development is an extension of the highly commercial Herndon Avenue corridor.

DISCUSSION

a) *Would the project have a substantial effect on a scenic vista?*

Less-Than-Significant Impact. As mentioned, there are no officially designated scenic vistas or focal points in the City of Clovis. While the Sierra Nevada Mountains are visible on clear days, the Project will adhere to the proposed PCC zone district standards, which permit structures up to 35 feet in height and up to 72 feet for hotels in Planning Area 4. General Plan Policy 2.3 mandates the preservation of public views of open spaces, parks, and natural features. The Clovis Old Town Trail runs adjacent to the western properties of the site, and Treasure Ingmire Park is located to the south, across Sierra Avenue. The Project enhances its proximity to the trail by providing connectivity from the trail to the site. Furthermore, the Project proposes uses that will benefit from facing the trail, such as restaurants with outdoor dining and a brewery with open space adjacent to the trail. The park will not be impacted by the Project due to the buffer provided by Sierra Avenue. The Project will be constructed at a maximum height consistent with the proposed PCC Zone District, ensuring a **less-than-significant** impact on scenic vistas.

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. As stated in the 2014 Clovis General Plan EIR, there are no Caltrans-designated scenic highways within the City of Clovis.[1] Further, there are no existing historical structures or rock outcroppings located on or within the immediate vicinity of the site, therefore, the Project would result in **no impact** with regards to substantially damaging scenic resources within a State scenic highway.

c) *Would the project 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?*

Less-Than-Significant Impact. The Project is situated in an urbanized area featuring a mix of land uses, including commercial, residential, and park areas. Consequently, the urban landscape comprises various structures with differing heights, designs, and characters. The Project plans to develop commercial and office buildings, including a total of 17 buildings. These buildings will align with the surrounding commercial structures and will not detract from the existing visual character or quality of public views of the site and its surroundings. Moreover, as previously mentioned, there are no officially designated scenic areas in the City, nor are there any specifically at or around the site itself.

[1] 2014 Clovis General Plan EIR, Page 5.1-1.

Additionally, the Project structures will comply with the height limits permitted under the proposed PCC Zone District, aligning with typical commercial development height requirements. Therefore, the Project will maintain the scale and character of the area, ensuring that it does not significantly degrade the existing visual character. As a result, the impact on the visual character of the site and its surroundings will be **less-than-significant**.

d) *Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?*

Less-Than-Significant Impact With Mitigation.
The Project will introduce new sources of light and glare to the area, typical of commercial developments. These include parking lot security lights, exterior building lighting, vehicle lights, and interior building lights during nighttime hours. These light sources are not usually associated with significant environmental impacts. Additionally, the site is already surrounded by commercial developments, street and trail lighting, and vehicle lights from street traffic.

Despite the introduction of new light and glare sources, the site plan review process will ensure that lighting design and placement minimize potential impacts on surrounding properties. Moreover, adherence to Mitigation Measure AES-1 will ensure that light and glare impacts remain **less-than-significant with mitigation**.

> Mitigation Measure AES-1: The Project shall comply with Section 9.22.050, Exterior Light and Glare, of the Clovis Municipal Code, which requires light sources to be shielded and that lighting does not spillover to adjacent properties.

2. AGRICULTURE AND FORESTRY RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.				X
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220 (g)) or timberland (as defined in Public Resources Code section 4526)?				X
d. Result in the loss of forest land or conversion of forest land to non-forest use?				X

e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?				X

ENVIRONMENTAL SETTING

The Project site is centrally located in urbanized Clovis, specifically at the northwest corner of Clovis and Sierra Avenues. It is surrounded by a mix of existing developments and does not include any agricultural lands.

DISCUSSION

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. The project site is not Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland). The site is designated as Urban and Built-up Land by the Department of Conservation.[2] Project site partially developed with commercial uses and surrounded by commercial and residential urban uses. The Project will provide a cohesive plan for the remaining development of the commercial center.

b) *Would the project conflict with existing zoning for agricultural use, or a Williamson Act Contract?*

No Impact. As shown in Figure 5.2-2 of the Agricultural Resources Chapter of the 2014 Clovis General Plan EIR, the Project site is not under a Williamson Act Contract. Further, the site is not currently zoned or designated for agricultural use. As a result, the Project would have **no impact** with regards to conflicting with existing zoning for agricultural use or a Williamson Act Contract.

c) *Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220 (g)) or timberland (as defined in Public Resources Code section 4526)?*

No Impact. The Project site does not contain forest land. Further, the site is not zoned for forestry or other forestry related uses. As a result, **no impact** would occur with regards to conflicts with existing zoning for, or cause rezoning of, forest land.

d) *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*

No Impact. See discussion under Section 2c.

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. See discussion under Section 2a.

[2] Department of Conservation - https://maps.conservation.ca.gov/DLRP/CIFF/, August 2024.

3. AIR QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?		X		
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?			X	
c. Expose sensitive receptors to substantial pollutant concentrations?		X		
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

ENVIRONMENTAL SETTING

An Air Quality and Greenhouse Gas Analysis Memorandum (AQ/GHG Memo) was prepared by Acorn Environmental (Acorn) on May 15, 2024 (see Appendix A). Information in this AQ/GHG Memo is used for the analysis included in both the Air Quality and Greenhouse Gas Emissions section of this Initial Study.

San Joaquin Valley Air Basin

The City of Clovis (City) is in the central portion of the San Joaquin Valley Air Basin (SJVAB). SJVAB consists of eight counties: Fresno, Kern (western and central), Kings, Tulare, Madera, Merced, San Joaquin, and Stanislaus. The SJVAB is approximately 25,000 square miles. It is bordered by the Sierra Nevada in the east, the Coast Ranges in the west, and the Tehachapi mountains in the south. The valley is topographically flat with a slight downward gradient to the northwest. The valley opens to the sea at the Carquinez Straits where the San Joaquin-Sacramento Delta empties into San Francisco Bay.

Topography

The topography of a region is important for air quality because mountains can block airflow that would help disperse pollutants and can channel air from upwind areas that transports pollutants to downwind areas. The San Joaquin Valley Air Pollution Control District (SJVAPCD) covers the entirety of the SJVAB. The SJVAB is generally shaped like a bowl. It is open in the north and is surrounded by mountain ranges on all other sides. The Sierra Nevada mountains are along the eastern boundary (8,000 to 14,000 feet in elevation), the Coast Ranges are along the western boundary (3,000 feet in elevation), and the Tehachapi Mountains are along the southern boundary (6,000 to 8,000 feet in elevation).

Climate

The SJVAB is in a Mediterranean climate zone and is influenced by a subtropical high-pressure cell most of the year. Mediterranean climates are characterized by sparse rainfall, which occurs mainly in winter. Summers are hot and dry. Summertime maximum temperatures often exceed 100°F in the valley.

The subtropical high-pressure cell is strongest during spring, summer, and fall and produces subsiding air, which can result in temperature inversions in the valley. A temperature inversion can act like a lid, inhibiting vertical mixing of the air mass at the surface.

Any emissions of pollutants can be trapped below the inversion. Most of the surrounding mountains are above the normal height of summer inversions (1,500–3,000 feet).

Winter-time high pressure events can often last many weeks, with surface temperatures often lowering into the 30°F. During these events, fog can be present, and inversions are extremely strong. These wintertime inversions can inhibit vertical mixing of pollutants to a few hundred feet.

Ambient Air Quality Standards

The Clean Air Act (CAA) was passed in 1963 by the US Congress and has been amended several times. The 1970 CAA amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National Air Quality Standards (AAQS) and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or to include other pollution species. The California Clean Air Act, signed into law in 1988, requires all areas of the state to achieve and maintain the California AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS, based on even greater health and welfare concerns.

These National and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect “sensitive receptors,” those most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health based AAQS for six air pollutants. As shown in Table 3, Ambient Air Quality Standards for Criteria Pollutants, these pollutants are carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and suspended particulate matter ($PM_{2.5}$ and PM_{10}). In addition, the state has set standards for sulfates and hydrogen sulfide. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

In addition to the criteria pollutants, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are injurious in small quantities and are regulated despite the absence of criteria documents. The identification, regulation and monitoring of TACs is relatively recent compared to that for criteria pollutants. Unlike criteria pollutants, TACs are regulated based on risk rather than specification of safe levels of contamination.

Attainment Status

The air quality management plans prepared by SJVAPCD provide the framework for SJVAB to achieve attainment of the state and federal AAQS through the State Implementation Plan. Areas are classified as attainment or nonattainment areas for pollutants, depending on whether they meet the ambient air quality standards. Nonattainment areas are imposed with additional restrictions as required by the United States Environmental Protection Agency. There are different classifications for attainment and the severity classifications for ozone nonattainment range in magnitude from marginal, moderate, and serious to

severe and extreme. These classifications are used as a foundation to create air quality management strategies to improve air quality and comply with the National AAQS.

Table 2: Air Quality Attainment Status for Fresno County

Pollutant	State	Federal
Ozone (1-hour)	Sever/Nonattainment	Standard Revoked
Ozone (8-hour)	Nonattainment	Extreme Nonattainment
PM_{10}	Nonattainment	Attainment (Maintenance)
$PM_{2.5}$	Nonattainment	Nonattainment
Carbon Monoxide	Attainment	Attainment (Maintenance)
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Lead	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified
Sulfates	Attainment	No Federal Regulation
Hydrogen Sulfide	Unclassified	No Federal Regulation

DISCUSSION

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

Less-Than-Significant Impact With Mitigation. Although the CEQA Guidelines indicate that a significant impact would occur if the Project were to conflict with or obstruct implementation of the applicable air quality plan, the SJVAPCDs 2015 Guide for Assessing and Mitigating Air Quality Impacts does not provide specific guidance on analyzing conformity with the plan. Thus, for purposes of analyzing this potential impact, the AQ/GHG Memo considered impacts based on: (1) whether the Project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards; and (2) whether the Project will comply with applicable control measures in the air quality plan, primarily compliance with Regulation VIII – Fugitive PM_{10} Prohibitions and Rule 9510 – Indirect Source Review.

In general, regional air quality impacts and attainment of standards are the result of the cumulative impacts of all emission sources within the air basin. Thus, individual projects are generally not large enough to contribute measurably to an existing violation or air quality standards alone. Therefore, in order to analyze this threshold, and because of the region's existing nonattainment status for several pollutants, the Project would be considered to cause significant impacts if it were to generate emissions that would exceed the SJVAPCD's significance thresholds. The District's annual emission significance thresholds are as follows:

- 100 tons per year CO
- 10 tons per year NO_x
- 10 tons per year ROG
- 27 tons per year So_x
- 15 tons per year PM_{10}
- 15 tons per year $PM_{2.5}$

Based on the AQ/GHG Memo, the Project would not exceed these thresholds from construction and operation of the Project (As Shown in Table 4).[3] Further, any impacts related to the construction activities

[3] Air Quality and Greenhouse Gas Assessment, Acorn Environmental, May 15, 2024.

of the Project, such as dust control, would be regulated through the SJVAPCD, which require measures such as frequent watering of the site during construction to minimize dust.

Table 4: CO, NO_x, ROG, PM_{10}, $PM_{2.5}$ Thresholds, Maximum

Emission Source (Tons Per Year)	CO	NO_x	ROG	PM_{10}	$PM_{2.5}$
Construction Emissions	1.99	1.47	0.49	0.18	0.11
Operational Emissions	29.2	4.51	6.44	5.29	1.40
Total Emissions	**31.19**	**5.98**	**6.93**	**5.47**	**1.51**
Significance Threshold	100	10	10	15	15
Exceed threshold – significant impact?	No	No	No	No	No

Notes:
CO = carbon monoxide
ROG = reactive organic gases
NO_x = nitrous oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size

The Project exceeds the minimum threshold and therefore is subject to the SJVAPCD rule 9510 (Indirect Source Review). The SJVAPCD recently approved an Air Impact Assessment (AIA) for the Project and provided a statement of tentative rule compliance. The Project will be subject to other air quality regulations, including Regulation VIII (Fugitive PM_{10} Prohibitions), which requires a Construction Notification Form or approval of a Dust Control Plan prior to construction.

Consequently, compliance with SJVAPCD regulations would ensure that a **less-than-significant impact with mitigation** occurs.

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. See discussion under Section 3a above.

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

Less-Than-Significant Impact With Mitigation. Sensitive receptors are generally considered to include children, the elderly, and persons with pre-existing respiratory and cardiovascular illness. The SJVAPCD considers a sensitive receptor a location that houses or attracts children, the elderly, or people with illnesses. Examples of these receptors are hospitals, residences, schools and school facilities, and convalescent facilities. The nearest sensitive receptors to the Project site are residential neighborhoods including single- and multi-family residential units southwest (50 feet) from the study area. A park is located to the south of the Project and a trail adjacent to the west.

Due to compliance with SJVAPCD's Best Practices for construction-related Exhaust Emissions and the limited extent and duration of diesel equipment use on the project site, potential health risk impacts would be negligible, and a detailed health risk assessment is not warranted. The Project would not exceed emission thresholds that would result in a significant impact[4] based on compliance with SJVAPCD regulations and standards for construction and operation of this type of development.

4 Air Quality and Greenhouse Gas Assessment, Acorn Environmental, May 15, 2024

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. Generally, sources considered to emit odors are associated with wastewater treatment facilities, sanitary landfills, petroleum refineries, chemical manufacturing, and other industrial/manufacturing related uses. The Project is commercial development and thus, is unlikely to produce odors that would be considered to adversely affect a substantial number of people. Further, there are no major odor-generating sources within screening distance of the site. Although some odors would be emitted through the construction of the Project, such as diesel fuel and exhaust from construction equipment, these odors would be temporary in nature and last only during construction activities. Overall, a **less-than-significant** impact would occur.

4. BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?			X	
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?			X	
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

ENVIRONMENTAL SETTING

A Biological Resources Assessment (BRA) was prepared by Acorn Environmental in February 2024 (see Appendix B). This BRA included a literature review and records search to identify the existence and potential for occurrence of sensitive or special-status plant and animal species in the project vicinity. The study area is limited to the proposed commercial development area within the larger PCC. The study area is relatively flat, with an on-site elevation of approximately 350 feet above mean sea level. The West Branch Clovis Ditch bisects the study area, and a stormwater detention basin occurs in the southwestern portion of the study area.

DISCUSSION

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. As described in the BRA, the study area is located in an urban infill location within Clovis. It includes both developed and undeveloped areas. The undeveloped portion of the study area has no major vegetation and is bisected by the West Branch Clovis Ditch. This area is classified as ruderal habitat, which includes areas that are subject to ongoing or regular disturbance and are modified from their natural state and not considered critical habitat. Although no listed or special-status species were observed within the study area, there is marginal habitat for two special-status species that have a low potential to occur within the study area, including the Burrowing owl and the Swainson's hawk. Additionally, mature trees on the site could provide suitable nesting habitat for tree-nesting species. Impacts to nesting birds during construction is considered a potentially significant impact. Implementation of mitigation measure BIO-1, BIO-2, and BIO-3 would ensure that a **less-than-significant impact with mitigation** occurs.

Mitigation Measure BIO-1: **Worker Training:** Prior to construction, personnel shall complete worker environmental awareness training. The training shall present information on burrowing owls and notification procedures and shall direct workers to halt work and allow individual burrowing owls to move off-site of their own accord. Construction personnel shall provide signatures confirming completion of the training, and copies of the training shall be maintained and made available to applicable agencies upon request.

Mitigation Measure BIO-2: **Burrowing Owl:** A pre-construction survey shall be conducted by a qualified biologist no more than 14 days prior to construction activities. The preconstruction survey shall be conducted in accordance with the "Take Avoidance Surveys" described in California Department of Fish and Wildlife's (CDFW) Staff Report on Burrowing Owl Mitigation (CDFW, 2012). If burrowing owls or sign of burrowing owls is not observed, results shall be documented, and no further action is necessary.

Should burrowing owl burrows be observed, CDFW shall be consulted to determine necessary avoidance or exclusion methods. Mitigation shall follow CDFW recommended measures in CDFW's Staff Report on Burrowing Owl Mitigation (CDFW, 2012), and shall follow the below steps:

- If the burrows can be avoided, a qualified biologist shall demarcate a no-disturbance buffer around the burrows using high visibility fencing or pin flagging. The size of the buffer shall be established with CDFW and shall remain in place until construction is completed. Buffer

size for burrowing owl, as detailed in CDFW's staff report, range from 50 meters to 500 meters depending on the level of disturbance and timing of disturbance.

- Should full avoidance be infeasible, CDFW shall be consulted to identify appropriate exclusion methods to be implemented prior to removal of the burrows. Consistent with the CDFW Staff Report, exclusion would not occur until a Burrowing Owl Exclusion Plan is approved by CDFW.

- In order to mitigate for loss of burrows that are excluded, the Burrowing Owl Exclusion Plan shall identify one of the following mitigation options, or a combination thereof, as outlined in the CDFW Staff Report "Mitigating Impacts" section:

    - Creation of artificial burrows commensurate to the number of burrows excluded;

    - Permanent conservation of like habitat, such as conservation easement;

    - Purchase of conservation bank credits; and/or

    - An alternative mitigation strategy, as developed with and approved by CDFW.

Mitigation Measure BIO-3: **Nesting Birds:** If construction activities would occur during the nesting season (February 1 through August 31), a pre-construction survey for the presence of nesting bird species shall be conducted by a qualified biologist on and within 500 feet of proposed construction areas, as accessible. The survey shall occur within five days of the commencement of construction activities. If active nests are identified in these areas, one of the following should occur:

- A qualified biologist shall establish a disturbance-free buffer zone using high-visibility fencing or flagging. The size of the buffer shall be determined by the qualified biologist based on the needs of the species. The buffer shall remain in place until either (1) construction activities are completed, (2) the conclusion of the nesting season, or (3) the qualified biologist determines that the young have fledged and are no longer dependent on the nest, or the nest has failed. If construction activities are halted for a period of more than 14 days, an additional preconstruction nesting bird survey shall be conducted.

  Or

- Commencement of construction activities shall be postponed until after the nesting season, or until after a qualified biologist has determined the young have fledged and are independent of the nest site or the nest has failed.

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

Less-Than-Significant Impact. No riparian habitat or other sensitive natural communities have been identified within the project site. The perimeter of the study area and parking lots are landscaped with ornamental vegetation. The site is comprised of a combination developed areas and undeveloped ruderal areas that are kept in a ruderal state through ongoing disturbance such as disking. These habitat types are highly modified from natural conditions and subject to ongoing disturbance. These habitats offer little value to plants and wildlife species and are not considered sensitive. Therefore, the Project would not

result in a substantial adverse effect with respect to this threshold, and a **less-than-significant** impact would occur.

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

Less-Than-Significant Impact. Surface water resources within the Project area that have the potential to be impacted by the proposed Project include a freshwater marsh within a stormwater detention basin, and the West Branch Clovis Ditch. Both features are man-made, isolated, and do not offer suitable habitat to support special-status species. Additionally, these features are non-jurisdictional. The marsh does not meet the definition of a water of the U.S. as confirmed by the Central Valley Regional Water Quality Control Board. CDFW was provided with supporting documents confirming that the ditch was an isolated, man-made feature dug from uplands. Therefore, impacts to these features would not be significant and mitigation would not be required.

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?*

No Impact. The Biological Resources Assessment did not identify the site as a regional or local wildlife movement corridors.[5] Further, wildlife corridors typically serve as areas that wildlife traverse in order to migrate from one habitat to another and because the site is infill and surrounded by urban development, the site is unlikely to serve as any sort of wildlife corridor. Thus, **no impact** would occur.

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

Less-Than-Significant Impact. The Clovis Development Code includes tree protection standards for the removal of trees. Compliance with tree protection standards will require approval of a tree removal permit for protected trees. The project will be required to comply with the tree protection ordinance; therefore, the impact would be **less-than-significant**.

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 City and Fresno County currently do not have a regional Natural Community Conservation Plan or a Habitat Conservation Plan. The Project site is subject to relevant biological resource policies of the 2014 General Plan. Therefore, there are no impacts to conservation plans. Overall, **no impact** would occur.

[5] Biological Resources Memo prepared by Acorn Environmental, February 2024, page 19.

5. CULTURAL RESOURCES

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

ENVIRONMENTAL SETTING

The Project site is partially developed and disturbed through regular disking. The 37-acre site has existing commercial development, two existing homes, and undeveloped areas. The West Branch Clovis Ditch traverses through the site. Acorn Environmental conducted a Cultural Resources Inventory and Evaluation on October 24, 2023 (Appendix C). The evaluation was conducted using records search, review of published and gray literature, examining historic maps, contacting the California Native American Heritage Commission (NAHC), outreach to local Native American tribal representatives, examining historic documents held at regional repositories, and a field survey. Based on the evaluation, no historic properties or historical resources are present within the study area and there is a very low potential for buried archaeological deposits to be present.

DISCUSSION

a) *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?*

Less-Than-Significant Impact With Mitigation. As mentioned, the Project site is partially developed with commercial uses, has two existing residential homes, and is split by the West Branch Clovis Ditch. A cultural resource records search was conducted within a quarter mile of the Project. The search indicated that the subject property had six previous cultural resources study that included a portion of the site. However, the evaluation concluded that based on the results of the records search findings and lack of archeological resources previously identified within a quarter mile radius of the Project, the potential to encounter subsurface cultural resources is minimal.[6]

Further, compliance with Policy 2.9 of the Open Space and Conservation Element of the General Plan, which calls for the preservation of historical sites and buildings of state or national significance, would ensure that if there were historical resources present, they would be protected. Because there is the slight possibility for the accidental or inadvertent uncovering of archaeological resources during construction, Mitigation Measure CULT-1 would serve to reduce those potential impacts by requiring any work to stop until any found artifacts can be properly removed and inventoried by a qualified

[6] Cultural Resources Inventory and Evaluation by Acorn Environmental, October 24, 2023, page 43.

archaeologist. Therefore, regarding the Project causing a substantial adverse change in the significance of a historical resource the Project would result in a **less-than-significant impact with mitigation.**

> Mitigation Measure CULT-1: If prehistoric or historic-era cultural or archaeological materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants.
>
> If the qualified professional archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.
>
> If a potentially eligible resource is encountered, then the qualified professional archaeologist, the Lead Agency, and the project proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met.

b) *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

Less-Than-Significant Impact With Mitigation. The site is partially developed with commercial uses and two residential homes. Undeveloped portions of the site are regularly maintained with disking. Nevertheless, the potential remains that archeological resources could be inadvertently or accidentally uncovered during ground-disturbing activities such as trenching, digging, and the installation of utilities and other infrastructure.

Because there is the slight possibility for the accidental or inadvertent uncovering of archaeological resources during construction, Mitigation Measure CULT-1 would serve to reduce those potential impacts by requiring any work to stop until any found artifacts can be properly removed and inventoried by a qualified archaeologist. Therefore, the Project would result in a **less-than-significant impact with mitigation**.

c) *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

Less-Than-Significant Impact With Mitigation. The Project site is partially developed and surrounded by existing commercial and residential development. Undeveloped portions of the site has been disturbed through regular maintenance by disking. Nevertheless, the potential remains that human remains could be inadvertently or accidentally uncovered during ground-disturbing activities such as trenching, digging, and the installation of utilities and other infrastructure.

Because there is the slight possibility for the accidental or inadvertent uncovering of human remains during construction, Mitigation Measure CULT-2 would serve to reduce those potential impacts by

requiring any work to stop until any found human remains can be properly removed by the County coroner and/or tribes. Therefore, the Project would result in a **less-than-significant impact with mitigation**.

> Mitigation Measure CULT-2: If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the Native American Heritage Commission, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5(c) shall guide the potential Native American involvement, in the event of discovery of human remains, at the direction of the County coroner. All reports, correspondence, and determinations regarding the discovery of human remains on the project site shall be submitted to the Lead Agency.

6. ENERGY

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

ENVIRONMENTAL SETTING

The Project site is an infill site and is surrounded by existing commercial and residential development.

DISCUSSION

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

Less-Than-Significant Impact. The Project proposes the construction of the remainder of the commercial center. Construction of such structures would require site preparation, grading, paving, architectural coating, and trenching. Construction would consist of typical activities for construction projects and therefore would not require use of new resources. While such activities would consume petroleum-based fuels, such consumption would be temporary and conclude upon completion of construction. The proposed Project in operation would be served by PG&E and would not require extensions of energy infrastructure or new energy supplies. As previously mentioned, the Project is located on an infill site surrounded by existing urban uses. Sources of operational energy consumption would include natural gas and/or electricity for space and water heating and transportation fuels (i.e., gasoline and diesel) for vehicle trips. Further, the commercial use would be subject to compliance with the latest energy efficiency standards in effect at the time of development and operation. This would include compliance with Title 24 Green Building Standards for energy efficiency, as well as be required

to comply with the latest water efficient landscape policy regulations. Further, the Project would be required to comply with Clovis General Plan Policies 3.4 and 3.7 of the Open Space and Conservation, which call for the use of water conserving and drought tolerant landscape, as well as energy efficient buildings. Conformance to these standards would be reviewed during the City's site plan review Review process and during review of building plans.

Consequently, compliance with these policies would ensure that the Project does not result in a significant impact due to the unnecessary consumption of energy and **less-than-significant** impact would occur.

b) *Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

Less-Than-Significant Impact. See discussion under Section 6a above.

7. GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	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?			X	
ii. Strong seismic ground shaking?			X	
iii. Seismic-related ground failure, including liquefaction?			X	
iv. Landslides?			X	
b. Result in substantial soil erosion or the loss of topsoil?			X	
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	

d.	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?				X
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems where sewers are not available for the disposal of wastewater?				X
f.	Directly or indirectly destroy a unique paleontological resource or unique geologic feature?		X		

ENVIRONMENTAL SETTING

The 2014 Clovis General Plan EIR identified no geologic hazards or unstable soil conditions known to exist on the Project site. Although Figure 5.6-2 of the Geology and Soils Chapter of the General Plan EIR does show a fault, the fault is located several miles east of the Project site.

DISCUSSION

a) *Would the project 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?; ii) Strong seismic ground shaking?; iii) Seismic-related ground failure, including liquefaction?; iv) Landslides?*

Less-Than-Significant Impact. Although the Project site does not have any known faults on the site, the potential remains that seismic ground-shaking could occur from the fault located east of the Project. However, adherence to the most current California Building Codes would ensure that the structures are constructed safely and in compliance with the appropriate building codes. With regards to liquefaction, the 2014 General Plan EIR states that the soil types in the area are not considered conducive to liquefaction due to their high clay content or from being too coarse.[7] Further, the site is generally flat and therefore landslides would not occur at the Project site. Overall, due to the location away from a known fault, adherence to the most recent California Building Codes, and the flat topography, a **less-than-significant impact** would occur with regards to potential impacts from seismic activity.

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

Less-Than-Significant Impact. The topography of the Project site is relatively flat with little to no slope. Development of the site would require grading and construction activities to ensure a flat and graded surface prior to construction. Such activities may result in the soil erosion and loss of topsoil. Such impacts would be addressed by applicable regulations set forth by the Regional Water Quality Control Board including preparation of a Stormwater Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer per the General Construction Permit requirements of the National Pollutant Discharge Elimination System. The SWPPP incorporates Best Management Practices for erosion and sediment controls and soil stabilization. Further, as part of the Project, grading plans are required to be submitted

[7] 2014 Clovis General Plan EIR, Chapter 5: Geology and Soils, page 5.6-3.

and approved by the Engineering Division to ensure appropriate grading of the site. Thus, these reviews and approval processes would ensure that a **less-than-significant** impact occur.

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. See discussion under Section 7a.

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

No Impact. According to the 2014 Clovis General Plan EIR, expansive soils are mostly present in areas along the northern edge of the non-Sphere of Influence (SOI) and the easternmost part of the Clovis non-SOI plan area. Because the Project is not within the vicinity of these areas, there would be no potential for creating direct or indirect substantial risks to life or property with regards to expansive soils. As a result, **no impact** would occur.

e) *Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems where sewers are not available for the disposal of wastewater?*

No Impact. The Project does not propose the use of septic tanks; therefore, **no impact** would occur.

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

Less-Than-Significant Impact With Mitigation. The Project site has been previously disturbed, as well as the immediately surrounding areas with no known occurrences of the discovery of paleontological resources. In addition, the Biological Resource Memo concluded that the potential for uncovering of subsurface deposits is unlikely. Nevertheless, the possibility remains that the inadvertent or accidental discovery could occur during ground disturbing construction activities. However, Mitigation Measure GEO-1, below, would serve to protect the accidental discovery of paleontological resources. As such, a **less-than-significant with mitigation** impact would occur.

> Mitigation Measure GEO-1: If prehistoric or historic-era cultural materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist and/or paleontologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants.
>
> If the qualified professional determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.
>
> If a potentially eligible resource is encountered, then the qualified professional archaeologist and/or paleontologist, the Lead Agency, and the project proponent shall arrange for either 1) total

avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met.

8. GREENHOUSE GAS EMISSIONS

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

ENVIRONMENTAL SETTING

Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHGs) because they capture heat radiated from the sun as it is reflected into the atmosphere. The accumulation of GHG's has been implicated as a driving force for global climate change. Definitions of climate change vary between and across regulatory authorities and the scientific community, but in general can be described as the changing of the earth's climate caused by natural fluctuations and anthropogenic activities which alter the composition of the global atmosphere.

Individual projects contribute to the cumulative effects of climate change by emitting GHGs during construction and operational phases. The principal GHGs are carbon dioxide, methane, nitrous oxide, ozone, and water vapor. While the presence of the primary GHGs in the atmosphere are naturally occurring, carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) are largely emitted from human activities, accelerating the rate at which these compounds occur within earth's atmosphere. Carbon dioxide is the "reference gas" for climate change, meaning that emissions of GHGs are typically reported in "carbon dioxide-equivalent" measures. Emissions of carbon dioxide are largely by-products of fossil fuel combustion, whereas methane results from off-gassing associated with agricultural practices and landfills. Other GHGs, with much greater heat-absorption potential than carbon dioxide, include hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, and are generated in certain industrial processes.

There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global warming, although there is uncertainty concerning the magnitude and rate of the warming. Potential global warming impacts in California may include, but are not limited to, loss in snowpack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.

In 2005, in recognition of California's vulnerability to the effects of climate change, Executive Order S-3-05 was signed. The order sets forth a series of target dates by which statewide emission of GHGs would be progressively reduced, as follows: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce

GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels. In 2006, California passed the California Global Warming Solutions Act of 2006 (Assembly Bill 32), which requires the California Air Resources Board to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide GHG emissions are reduced to 1990 levels by 2020.

In December 2009, the SJVAPCD adopted guidance for addressing GHG impacts in its *Guidance for Valley Land Use Agencies in Addressing GHG Emission Impacts for New Projects under* CEQA. The guidance relies on performance-based standards, otherwise known as Best Performance Standards (BPS), to assess significance of project-specific GHG emissions on global climate change during the environmental review process. Projects can reduce their GHG emission impacts to a less than significant level by implementing BPS. Projects can also demonstrate compliance with the requirements of AB 32 by demonstrating that their emissions achieve a 29% reduction below "business as usual" (BAU) levels. BAU is a projected GHG emissions inventory assuming no change in existing business practices and without considering implementation of any GHG emission reduction measures.

Significance Criteria

The SJVAPCDs *Guidance for Valley Land Use Agencies in Addressing GHG Impacts for New Projects Under CEQA* provides initial screening criteria for climate change analyses, as well as draft guidance for the determination of significance.

The effects of project specific GHG emissions are cumulative, and therefore climate change impacts are addressed as a cumulative, rather than a direct, impact. The guidance for determining significance of impacts has been developed from the requirements of Assembly Bill 32. The guideline addresses the potential cumulative impacts that a project's GHG emissions could have on climate change.

Since climate change is a global phenomenon, no direct impact would be identified for an individual land development project. The following criteria are used to evaluate whether a project would result in a significant impact for climate change impacts:

- Does the project comply with an adopted statewide, regional, or local plan for reduction or mitigation of GHG emissions?
- Does the project achieve 29% GHG reductions by using approved Best Performance Standards?
- Does the project achieve Assembly Bill 32 targeted 29% GHG emission reductions compared with BAU?

Projects that meet one of these guidelines would have less-than-significant impact on the global climate. The goal of 29% below BAU for emissions of GHG has been used as a threshold of significance for this analysis.

DISCUSSION

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. The Project would include the construction of a commercial center. As such, GHG emissions would be produced through the construction and operational phases of the Project.

However, the SJVAPCD includes regulations to reduce GHG emissions such as standards for medium and heavy-duty engines and vehicles (i.e., tractors and construction equipment) that would apply to buildout of the Project. Compliance with Title 24 energy efficient building codes would apply, which also helps to reduce GHG emissions during the operation of the Project, by requiring minimum standards for insulation, energy efficiency, and window glazing, etc., which serve to maximize efficiency of new construction. Further, the Project would comply with the latest water efficient landscape standards, which help to reduce energy usage. Overall, the AQ/GHG Memo conducted by Acorn Environmental concluded that the Project, with implementation of required energy efficient standards, would sufficiently reduce emissions. Therefore, a **less-than-significant** impact would occur.

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

Less-Than-Significant Impact. Based on the AQ/GHG Memo,[8] the Project would comply with existing State regulations adopted to achieve the overall GHG emission reduction goals. As indicated in the discussion above under Section 8a, the Project would result in GHG reductions by complying with the latest energy efficient and water conservation standards. Consequently, the AQ/GHG Memo found this potential impact to be **less-than-significant**.

9. HAZARDS AND HAZARDOUS MATERIALS

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

[8] Air Quality and Greenhouse Gas Analysis Memorandum, Acorn Environmental, page 22, May 15, 2024.

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

ENVIRONMENTAL SETTING

For purposes of this chapter, the term "hazardous materials" refers to both hazardous substances and hazardous wastes. A "hazardous material" is defined in the Code of Federal Regulations (CFR) as "substance or material that is capable of posing an unreasonable risk to health, safety, and property when transported in commerce" (49 CFR 171.8). California Health and Safety Code Section 25501 defines a hazardous material as "any material that, because of its quantity, concentration, or physical, or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment." Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

"Hazardous wastes" are defined in California Health and Safety Code Section 25141(b) as wastes that "…because of their quantity, concentration, or physical, chemical, or infectious characteristics, [may either] cause or significantly contribute to an increase in mortality or an increase in serious illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed."

The nearest school to the Project site is within Weldon Elementary School. Weldon Elementary School is located approximately 1,500 feet to the southwest of the Project site.

DISCUSSION

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. The Project consists of the construction of the remainder of the commercial center. The type of hazardous materials that would be associated with the Project are those typical of commercial uses, such as the use of cleaners, landscape maintenance products, soaps, and potential pesticides (for pest control). It is not expected that the Project would routinely transport, use, or dispose of hazardous materials other than those typical of those associated with commercial uses. However, if transported, handled, and disposed of in accordance with regulations, these materials are not generally considered of the type or quantity that would pose a significant hazard to the public when used as directed. During construction, typical equipment and materials would be used that are associated with residential/commercial construction; however, any chemicals or materials would be handled, stored,

disposed of, and/or transported according to applicable laws. Consequently, because the Project is not of the type of use that would routinely transport, use, or dispose of hazardous materials a **less-than-significant** impact would occur.

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-Significant Impact. See discussion above under Section 9a.

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?*

Less-Than-Significant Impact. As previously discussed, the Project site is near an elementary school. However, the Project is not of the type of use typically associated with emitting hazardous emissions or handling the type or quantity of hazardous materials such that it would pose a risk or threat to the school, or surrounding area. Therefore, a **less-than-significant** impact would occur.

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. According to the California Department of Toxic Substance Control EnviroStor Database, the Project site is not located on or within the immediate vicinity of a hazardous materials site.[9] Therefore, **no impact** would occur.

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

No Impact. The Project is located approximately four (4) miles north of the Fresno Yosemite International Airport and is not within the Airport Influence Area, safety zones, noise, or airspace and overflight areas. Therefore, **no impact** would occur.

f) *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

Less-Than-Significant Impact. The Project is located at a site that is surrounded by existing development. Further, the road network is already in place from previous development. Although the Project could result in temporary traffic detouring or closures during buildout, these delays would be temporary and would be coordinated with the City Engineering Division and other divisions/departments to ensure safe access to and from the area is maintained. Further, the site itself would be reviewed by City departments to ensure adequate site access and circulation is provided in the event of an emergency. Overall, a **less-than-significant** impact would occur.

[9] California Department of Toxic Substance Control, EnviroStor Database, https://www.envirostor.dtsc.ca.gov/public/map/?global_id=71003467 accessed on August 10, 2024.

g) *Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?*

Less-Than-Significant Impact. The site is an infill site surrounded by urban uses. Therefore, it is not in a location typically associated with wildfires. Although urban fires could occur, the Project would be constructed to the latest fire code standards, which would include fire sprinklers in each unit, as well as the installation of fire hydrants throughout the site as required by the Clovis Fire Department. Further, other life safety features would be required such as smoke detectors, which would be reviewed and checked by the Fire Department to ensure proper operation prior to occupancy. Ultimately, a **less-than-significant** impact would occur.

10. HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (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; or (iv) impede or redirect flood flows?			X	
i. Result in substantial erosion or siltation on- or off-site?			X	
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?			X	

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X	
iv. Impede or redirect flood flows?			X	
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

ENVIRONMENTAL SETTING

The City is within the drainages of three streams: Dry Creek, Dog Creek, and Redbank Slough. On the north, Dry Creek discharges into the Herndon Canal in the City of Fresno west of Clovis. South of Dry Creek, Dog Creek is a tributary of Redbank Slough, which discharges into Mill Ditch south of Clovis (USGS 2012). A network of storm drains in the City discharge into 31 retention basins, most of which provide drainage for a one- to two-square-mile area. Most of the Plan Area east and northeast of the City is not in drainage areas served by retention basins.

The Project is located within the FMFCD boundary, and subject to its standards and regulations. Detention and retention basins in the FMFCD's flood control system are sized to accommodate stormwater from each basin's drainage area in built out condition. The current capacity standard for FMFCD basins is to contain runoff from six inches of rainfall during a 10-day period and to infiltrate about 75 to 80 percent of annual rainfall into the groundwater basin (Rourke 2014). Basins are highly effective at reducing average concentrations of a broad range of contaminants, including several polyaromatic hydrocarbons, total suspended solids, and most metals (FMFCD 2013). Pollutants are removed by filtration through soil, and thus do not reach the groundwater aquifer (FMFCD 2014). Basins are built to design criteria exceeding statewide Standard Urban Stormwater Mitigation Plan (SUSMP) standards (FMFCD 2013). The urban flood control system provides treatment for all types of development—not just the specific categories of development defined in a SUSMP—thus providing greater water quality protection for surface water and groundwater than does a SUSMP.

In addition to their flood control and water quality functions, many FMFCD basins are used for groundwater recharge with imported surface water during the dry season through contracts with the FID and the cities of Fresno and Clovis (FMFCD 2013).

The pipeline collection system in the urban flood control system is designed to convey the peak flow rate from a two-year storm.

Most drainage areas in the urban flood control system do not discharge to other water bodies and drain mostly through infiltration into groundwater. When necessary, FMFCD can move water from a basin in one such drainage area to a second such basin by pumping water into a street and letting water flow in curb and gutter to a storm drain inlet in an adjoining drainage area (Rourke 2014). Two FMFCD drainage areas discharge directly to the San Joaquin River, and three to an irrigation canal, without storage in a

basin. Six drainage areas containing basins discharge to the San Joaquin River, and another 39 basins discharge to canals (FMFCD 2013).

A proposed development that would construct more impervious area on its project site than the affected detention/retention basin is sized to accommodate is required to infiltrate some stormwater onsite, such as through an onsite detention basin or drainage swales (Rourke 2014).

Groundwater
In 2014, the Sustainable Groundwater Management Act (SGMA) was signed into law which created the framework for groundwater management within California. As a result, SGMA requires governments and water agencies of high and medium priority basins to halt groundwater overdraft and bring the groundwater basins back to a balance.

The City of Clovis is within the Kings Groundwater Subbasin, which is managed by the North Kings Groundwater Sustainability Agency for the area which the City is located and is considered critically over drafted. The Kings Basin is a sub basin to the southern part of the San Joaquin Valley Basin and covers 1,530 square miles. Groundwater within the basin is monitored by the City, FID, and the Kings River Conservation District.

The City of Clovis provides water through a combination of surface and groundwater sources, including the Kings River, as well as several City-managed wells.

DISCUSSION

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

Less-Than-Significant Impact. The Project is located on a site that was previously anticipated for suburban development that the Project proposes. As with any development, existing policies and standards are required to be complied with, which are assessed during review of the entitlements. As such, the engineering department, as well as outside agencies such as the FMFCD review all plans to ensure that none of the water quality standards are violated and that waste discharge requirements are adhered to during construction and operation of the Project. Consequently, this process of Project review and approval would ensure that a **less-than-significant** impact occur.

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?*

Less-Than-Significant Impact. The Project would not deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level due to the Project. The General Plan EIR identified a net decrease in groundwater aquifer throughout the region, however, because the City's domestic water system is primarily served through surface water via existing water entitlements, the loss of aquifer is less than significant.

The City has developed a surface water treatment plant that reduces the need for pumped groundwater and has also expanded the municipal groundwater recharge facility. In addition, all landscaping shall be subject to Model Water Efficient Landscape Ordinance requirements, which mandate drought tolerant and low water use landscaping. The existing and planned water distribution system and recommended

connections should be adequate to convey water supply to the Project to support anticipated demands from the Project. For these reasons, the Project's impacts to groundwater are **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, 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; or (iv) impede or redirect flood flows?*

Less-Than-Significant Impact. The Project site is located on an infill site that is generally flat and surrounded by existing urban uses. There are no streams or rivers on the site that would be altered as a result of the Project. The infrastructure surrounding the site, such as storm drains are already in place from existing development. The drainage pattern would be constructed per existing policies and regulations through review of the plans by the City engineering department and the FMFCD to ensure the site is properly and adequately drained such that the storm drain system is maintained and so that no flooding occurs. The review and approval by City engineers and FMFCD would mean that the Project results in a **less-than-significant** impact.

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

No Impact. The Project site is located on an infill site substantially surrounded by existing urban uses. Due to the Central Valley's location away from the ocean, an impact from a tsunami is unlikely. The Project site is not in a Federal Emergency Management Agency (FEMA) flood zone. The nearest FEMA flood zone is over one mile to the south of the site. Consequently, this is a low-risk area and as a result a **no impact** would occur.

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

Less-Than-Significant Impact. The City of Clovis is within the North Kings County Groundwater Sustainability Agency (GSA). Pursuant to the SGMA, certain regions in California are required to develop and implement a groundwater management plan that sustainably manages groundwater resources. The North Kings County GSA adopted a groundwater management plan in 2019. The Project will have access to the annual allotment of water. With regards to water quality control, the Project would be required to adhere to appropriate storm drain conveyance and the protection of water resources which would include the installation of backflow preventers. Consequently, the Project would result in a **less-than-significant** impact.

11. LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Physically divide an existing community?				X
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation			X	

adopted for the purpose of avoiding or mitigating an environmental effect?				

ENVIRONMENTAL SETTING

As described above in the Project Description, the Project site is centrally located in Clovis and is considered an in-fill site in that the surrounding areas are urbanized. The site is surrounded by commercial development to the north and east, and residential development to the south and west.

DISCUSSION

a) *Would the project physically divide an existing community?*

No Impact. The site is partially developed and is within a general area that is urbanized with a mix of existing uses and land use types. Typically, physically dividing existing communities is associated with the construction of a new road intersecting an established area or introducing uses that are not necessarily in line with the existing uses and planned land uses of the area. The Project site is situated between Highway 168, Clovis Avenue and Sierra Avenue. The site was planned for commercial development and intends to complete the development of the commercial center. Additionally, it would not construct features that would physically divide an established community or remove means of access that would impair mobility in a community. Therefore, **no impact** would occur.

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 proposed use is consistent with the General Commercial land use designation of the General Plan. The Project proposes to amend the Planned Commercial Center (PCC) development standards and master site plan through the Rezone process. Through the entitlement process, the Project is reviewed for compliance with applicable regulations, including those intended for avoiding or mitigating an environmental effect. For example, the Project would be required to comply with applicable lighting, landscape, and noise standards, which are regulated through the Clovis Municipal Code to ensure minimal impacts to the environment as well as with neighboring properties. Overall, with the review process ensuring General Plan and other applicable policies will be adhered to, the Project would result in a **less-than-significant** impact with regards to conflicting with a land use plan.

12. MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general				X

plan, specific plan or other land use plan?				

ENVIRONMENTAL SETTING

The City of Clovis 2014 General Plan EIR defines minerals as any naturally occurring chemical elements or compounds formed from inorganic processes and organic substances.[10] The 2014 General Plan EIR indicates that there are no active mines or inactive mines within the Plan Area of the City of Clovis.

DISCUSSION

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. As stated above, the City of Clovis does not have any active mines or inactive mines. Further, the Project site is an infill site within the City and is not zoned, designated, or otherwise mapped for mineral resource extraction, or for having mineral resources of value to the region present on or below the surface of the site. Therefore, **no impact** would occur.

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. See discussion under Section 12a.

13. NOISE

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

[10] 2014 Clovis General Plan EIR, Chapter 5: Mineral Resources, page 5.11-1.

ENVIRONMENTAL SETTING

As mentioned above in the Project Description, the site is located centrally located in Clovis near the northwest corner of Clovis and Sierra Avenues. The Project site is within an urbanized area of the City surrounded by existing commercial uses to the north and east, and residential uses to the south and west. As such, existing ambient noise levels are typical of noises from these types of developments (i.e., schools, roadway networks, commercial, and residential). A Noise memorandum was prepared by JK Consulting Group

DISCUSSION

a) *Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Less-Than-Significant Impact. The Project would lead to both temporary and permanent increases in ambient noise levels. JK Consulting Group prepared a noise memorandum analyzing the noise impacts from the project. The analysis concluded that the combined stationary noise sources from the project would not exceed 54 dBA. Additionally, noise generated by project-related traffic would range from 64-66 dBA CNEL, which is lower than the current noise levels caused by SR 168. Construction noise will be temporary, and the analysis shows that noise from construction activities will not exceed the interior noise limits for the surrounding land use categories.

Moreover, CMC Section 9.22.080, which governs noise standards for developments, must be followed. For example, construction is only allowed between 7:00 a.m. and 7:00 p.m. on weekdays, and between 9:00 a.m. and 5:00 p.m. on weekends. However, from June 1st to September 15th construction can start as early at 6:00 a.m. on weekdays.

Consequently, because the Project site is considered infill, already surrounded by similar uses, and because construction noise would be temporary in nature, the potential for a substantial increase in ambient or temporary noise increases is considered **less-than-significant**.

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

Less-Than-Significant Impact. The Project would include the development of a site within Clovis. Construction equipment typical of the development of commercial buildings would be utilized temporarily. This equipment could include the use of heavy tractors, trucks, and other equipment; however, this type of equipment isn't typically associated with excessive groundborne vibration given the distance of residential homes to the site. If any vibration were to occur, it's likely that it would be temporary in nature and not at levels that would significantly impact the surrounding area.

The noise memorandum analyzed groundborne vibration impacts and determined that the predicted vibration velocity levels for sensitive receptors adjacent to the Project are predicted to approach 0.026 in/sec using a Vibratory Roller level (0.210 at 25 ft). The level of vibration generated by the Project's construction phase is considered less than significant.

Further, the Project would be required to comply with the provisions of Section 9.22.100 of the CMC, which requires that vibration not be perceptible along property lines and that it shall not interfere with operations or facilities on adjoining parcels. It's important to note that temporary construction vibration and noise is exempt from these provisions since construction is temporary. Overall, because the type of equipment likely to be used in the development of the Project is not considered to be of the type and

intensity to result in substantial vibration or groundborne noise, the impact would be **less-than-significant**.

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 is not located within the vicinity of Fresno Yosemite International Airport, which is approximately four (4) miles south of the site. As such, it is located outside of the noise contour map of the airport.[11] Therefore, there would be no exposure to excessive noise levels and **no impact** would occur.

14. POPULATION AND HOUSING

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

ENVIRONMENTAL SETTING

The Project is located on an in-fill site that is planned for commercial use in the 2014 Clovis General Plan. The Project proposes to develop according to the commercial land use designation.

DISCUSSION

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)?*

Less-Than-Significant Impact. As mentioned, the Project would include the development of a commercial center in accordance with planned land use of the General Plan. Unplanned population growth is typically associated with providing new services in remote areas of the City or other infrastructure that was not previously identified in the General Plan. The Project site itself is an in-fill site, thus, the primary infrastructure (i.e., road network, utilities, etc.) is already in place and would be able to serve the site. Thus, a **less-than-significant** impact would occur.

[11] Fresno Council of Governments, Airport Land Use Compatibility Plan, December 2018, Fresno Yosemite International Airport, Exhibit D2, Noise Contours.

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

Less-Than-Significant Impact. The project site is partially developed with commercial uses and includes two existing residential homes. Although the site was originally planned for commercial development, the homes will remain in place until the property owners choose to pursue commercial projects. While the two homes are currently occupied, the project will not result in the displacement of a significant number of people. Therefore, the Project would not result in the substantial displacement of existing people or housing and a **less-than-significant** impact would occur.

15. PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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:				
a. Fire protection?			X	
b. Police protection?			X	
c. Schools?			X	
d. Parks?			X	
e. Other public facilities?			X	

ENVIRONMENTAL SETTING

The Project is located on an in-fill site within the City, surrounded by existing commercial and residential uses. The Project would be served by the Clovis Fire Department, Clovis Police Department, with mutual aid from the City of Fresno or County of Fresno, when needed. The Project site would also be within the Clovis Unified School District.

The nearest fire station is Clovis Fire Station 1, located approximately a half (.5) mile south of the site. The Clovis Police department is located approximately a half (.5) mile southeast of the site.

DISCUSSION

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 fire protection services?*

Less-Than-Significant Impact. The Project is an infill site being developed in accordance to the City's planned land use of General Commercial. As part of the entitlement process for the Project, the Clovis Fire Department will review the design and site layout to ensure adequate fire safety measures and site circulation are achieved. This includes placement of new fire hydrants throughout the site, adequate drive widths for fire truck and emergency vehicle access, and the appropriate application of fire codes, such as installation of sprinkler systems, fire alarms, and smoke detectors. The initial review by the Fire Department determined that adequate fire services can be provided to the site subject to standard conditions of approval, including providing minimum clear paths of travel for fire access. Overall, construction that would meet the latest fire code standards, and review by the Clovis Fire Department, impacts related to effects on the performance of the Fire Department would be **less-than-significant** impact.

b) *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 police protection services?*

Less-Than-Significant Impact. The Project is an infill site being developed in accordance to the City's planned land use of General Commercial. The Clovis Police Department headquarters are located at 1233 Fifth Street, which is approximately a half (.5) mile from the site. As part of the entitlement process for the Project, the Clovis Police Department will review the design and site layout to ensure adequate safety measures are achieved. Lastly, the site is in an already urbanized area serviced by the Clovis Police Department, and thus access to and from the site would be similar to existing conditions when responding to calls for services. Consequently, a **less-than-significant** impact would occur.

c) *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 schools?*

Less-Than Significant Impact. The Project includes construction of the remainder of a commercial center which would not generate students for schools. The Project request was distributed to the Clovis Unified School District for review and the school district did not express any concerns with the development of this project. Therefore, a **less-than-significant** impact would occur.

d) *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 parks?*

Less-Than-Significant Impact. See discussion under Section 16, Recreation for the analysis related to parks.

e) *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 other public facilities?*

Less-Than-Significant Impact. The Project is an infill site being developed in accordance to the City's planned land use of General Commercial. The project site is an infill development surrounded by existing commercial and residential uses. Further, through the entitlement process, the Project would undergo review by several departments and agencies for compliance with appropriate regulations and policies. This could result in various impact fees that are intended to maintain and enhance public facilities as appropriate. As such, payment of the typical development fees, as well as project review by the different department and agencies, would result in the Project having a **less-than-significant** impact to public facilities.

16. RECREATION

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

ENVIRONMENTAL SETTING

The Project site is an infill site surrounded by existing commercial and residential uses. There are three parks within half a mile of the subject property. Treasure Ingmire Park and Sierra Bicentennial Parks, located south and west of the site, are the closest public parks. The Clovis Old Town Trail also traverses adjacent to the property's western boundary.

DISCUSSION

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?*

Less-Than-Significant Impact. As mentioned in the Population and Housing section of this Initial Study, the Project proposes the development of the rest of the commercial center. Although the development is not residential, it is a possibility that it may increase utilization of the nearby parks. However, it is not likely that the development would substantially increase the usage of the parks. Overall, the type and use of Project would not likely increase the use of existing parks such that physical deterioration would occur. Therefore, the impact would be **less-than-significant**.

b) *Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?*

Less-Than-Significant Impact. The Project site itself would construct on site landscaping in compliance with City standards for residential development. However, it is not likely that the Project itself would require the construction or expansion of new recreational facilities that would have an adverse physical effect on the environment. As such, a **less-than-significant** impact would occur.

17. TRANSPORTATION

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

ENVIRONMENTAL SETTING

The Project is an infill site surrounded by existing commercial and residential developments. The site is bounded by Clovis Avenue to the east, Sierra Avenue to the south, a portion of Highway 168 to the west, and Magill Avenue to the north. According to the 2014 Clovis General Plan Circulation Diagram in the Circulation Element (Figure C-1), Clovis Avenue is designated as an arterial street, Sierra Avenue is designated as a collector street, and Magill Avenue is a local street. Arterial streets are designed to move large volumes of traffic and are intended to provide high level of mobility between freeways, expressways, other arterials, and collector roadways. Arterial streets typically have more right-of-way and a higher degree of access control than collector roadways. Collector streets provide for relatively short distance travel between and within neighborhoods. Collectors are not designed to handle long-distance through-traffic. Driveway access to collectors is less limited than on arterials. Speed limits on these streets are typically lower than those found on arterials. A Traffic Impact Analysis (TIA) and Vehicle Miles Traveled Analysis (VMT Analysis) was prepared by JLB Traffic Engineering, Inc. dated May 16, 2024 (included as Appendix E of this Initial Study). The information and analysis in the following section is based on the results of the TIA and VMT Analysis.

DISCUSSION

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

Less-Than-Significant Impact. As mentioned above, the site is within an urbanized area that has been planned for commercial development by the 2014 Clovis General Plan. The project would not modify the planned land use or include any features that would preclude the City from completing and complying

with guiding documents and policy objectives, and therefore, would not conflict with the relevant City plans, policies, and programs.

A TIA was prepared to evaluate potential on-site and off-site traffic impacts, identify short-term and long-term roadway needs, determine potential roadway improvement measures and identify any critical traffic issues that should be addressed as a result of the project. Based on the analysis, the City Engineer determined that there are **less-than-significant** impacts to the 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)?*

Less-Than-Significant Impact. Under Senate Bill (SB) 743, traffic impacts are related to Vehicle Miles Traveled (VMT). The VMT metric became mandatory on July 1, 2020. The City Guidelines provide guidance relative to analyzing VMT for purposes of determining transportation impacts in accordance with the CEQA. The guidelines also adopted a screening standard and criteria that is used to screen out qualified development projects that meet the criteria from needing to prepare a detailed VMT analysis. Projects not screened out must be analyzed through adopted VMT thresholds of significance. The VMT analysis prepared by JBL Traffic Engineering concluded that the office component of the project are screened out from a detailed VMT analysis as its VMT impacts have been previously reported to be less than significant by the City's General Plan and VMT guidelines. The Project's retail component was determined to be less than significant after pass-by trip reductions are applied to the VMT. Overall, the project was determined to result in a **less-than significant** VMT impact.

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

Less-Than-Significant Impact. The Project would result in a significant impact if it would include features that would create a hazard such as a sharp curve in a new roadway or create a blind corner or result in sight distance issues from entryways. Through the entitlement process, the Project would undergo review by multiple City departments, such as planning and engineering, to ensure that the site layout conforms to existing regulations, such as the City Development Code, and other applicable codes, such as the fire code and building code. During this review, the Project would need to make the necessary corrections to ensure that no hazardous design features would result from the Project. Therefore, because the Project would undergo site plan and design review to ensure consistency and adherence to applicable design and site layout guidelines, a **less-than-significant** impact would occur.

d) *Would the project result in inadequate emergency access?*

Less-Than-Significant Impact. The Project would include eight (8) ingress/egress access points. Magill Avenue extends west of Clovis Avenue and is proposed to have two (2) access points along it's south side and a third at the west end of Magill Avenue. The Project proposes to have five (5) access points located along the west side of Clovis Avenue between Magill and Sierra Avenues. As part of the Project review, the Clovis Fire Department would review all plans to ensure adequate emergency access is provided. This review includes review for adequate roadway widths, turning radii, as well as adequate access to units and accessibility to water. Consequently, because the Project plans would be required by the CMC to be reviewed and approved by Clovis Fire Department and Police Department prior to construction, this impact would be **less-than-significant**.

18. TRIBAL CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?				X
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American Tribe?		X		

ENVIRONMENTAL SETTING

On September 25, 2014, Governor Jerry Brown signed Assembly Bill (AB) 52, which intends to protect a new class of resources under the CEQA. This new class is Tribal Cultural Resources and provides an avenue to identify tribal cultural resources through a consultation process, similar to SB 18. However, unlike SB 18 where consultation is required for all General Plan and Specific Plan amendments, AB 52 applies to all projects where a Notice of Determination is filed, and the City has received written notification requests. Furthermore, the consultation process is required to be complete prior to filing a Notice of Intent.

On July 12, 2024, consistent with AB 52, invitations to consult on the Project were mailed to three tribes within the area. Tribes have up to thirty (30) days to request consultation in accordance with AB 52. No requests for consultation were requested during these times.

Acorn Environmental prepared a Cultural Resources Inventory and Evaluation dated October 24, 2023 (Appendix C). The full accounting of cultural resources occurring within the study area was achieved by conducting records search, review of published and gray literature, examining historic maps, contacting the California American Heritage Commission (NAHC), outreach to local Native American tribal representatives, examining historic documents held at regional repositories, and a field survey. The evaluation concluded that no historic properties or historical resources are present within the study area and there is very low potential for buried archaeological deposits to be present.

DISCUSSION

a) *Would the project cause a substantial adverse change to a 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)?*

No Impact. As mentioned in the Project Description, the Project site is partially developed. There are no existing structures or features on the site that are listed or eligible in the California Register of Historical Resources, or in a local register. As such, the Project would have **no impact**.

b) *Would the project cause a substantial adverse change to a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American Tribe?*

Less-Than-Significant Impact With Mitigation. As mentioned above, the City invited three Native American tribes to consult on the Project under AB 52, and no tribes requested consultation within the 30-day. The undeveloped portion of the Project site would require trenching and ground-disturbing activities during construction for the installation of utility infrastructure needed to serve the Project. Although no cultural resources were identified at the site, the potential remains that cultural resources could be inadvertently discovered during ground-disturbing activities. However, implementation of Mitigation Measures TCR-1 and TCR-2 below would reduce potential significant impacts and ensure protection in the event of accidental discovery of any cultural resources. With Mitigation Measure TCR-1 and TCR-2, impacts would be **less-than-significant with mitigation**.

Mitigation Measure TCR-1: If cultural or archaeological materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants.

If the qualified professional archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.

If a potentially eligible resource is encountered, then the qualified professional archaeologist, the Lead Agency, and the project proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met.

Mitigation Measure TCR-2: If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the Native American Heritage Commission, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code

(Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5(c) shall guide the potential Native American involvement, in the event of discovery of human remains, at the direction of the County coroner. All reports, correspondence, and determinations regarding the discovery of human remains on the project site shall be submitted to the Lead Agency.

19. UTILITIES AND SERVICE SYSTEMS

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

ENVIRONMENTAL SETTING

The electricity and natural gas services in the City of Clovis are provided by PG&E. AT&T/SBC provides telephone service to the City.

The City's water supply sources include groundwater drawn from the Kings Sub-basin of the San Joaquin Valley Groundwater Basin and surface water from the FID. Surface water is treated at the City of Clovis Surface Water Treatment Facility.

The City of Clovis provides sewer collection service to its residents and businesses. Treatment of wastewater occurs at the Fresno-Clovis Regional Wastewater Treatment Plant (RWTP). The Fresno-

Clovis RWTP is operated and maintained by the City of Fresno and operates under a waste discharge requirement issued by the Central Valley Regional Water Quality Control Board. Additionally, the City has completed a 2.8 mgd wastewater treatment/water reuse facility, which will service the City's new growth areas.

The FMFCD has the responsibility for storm water management within the Fresno-Clovis metropolitan area of the Project site. Stormwater runoff that is generated by land development is controlled through a system of pipelines and storm drainage detention basins.

DISCUSSION

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 Project site is centrally located in the City's urban and developed area. The Project will be developed in accordance with the planned land use per the City's General Plan. Systems related to water, wastewater treatment, storm water drainage, electric, natural gas, or telecommunications facilities already exists within the general area and the Project would only need to connect to these systems. Further, as part of the review process for the Project, the wastewater impacts will be evaluated by the City Engineer to ensure compliance with the City's Wastewater Master Plan, as well as FMFCD, so that the Project would not exceed wastewater treatment requirements such that a new facility would be required, nor would the existing treatment facility need to be expanded. Upon review and approval by the City Engineer, the Project would result in a **less-than-significant** impact.

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 site is centrally located within the city's urbanized area and will be developed in accordance with the planned land use outlined in the City's General Plan. The entire project falls within the FID service area, where land is entitled to an average annual allocation of approximately 2.24 acre-feet per acre (AF/ac). The City Engineer has confirmed that there is sufficient water supply to support the project, as it has been planned for in the General Plan. Therefore, the Project will cause a **less-than-significant impact** on water supply.

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

Less-Than-Significant Impact. The project site is centrally located within the city's urbanized area and will be developed in accordance with the planned land use outlined in the City's General Plan. The City Engineer has confirmed that there is sufficient system capacity to support the project, as it has been planned for in the General Plan. Therefore, the Project will cause a **less-than-significant impact** for wastewater 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 Project would introduce new solid waste throughout construction and operation of the Project. However, the Project would be required to comply with Chapter 6.3.1, Recycling and Diversion of Construction and Demolition Debris, of the CMC during construction. This

section of the CMC requires that a minimum of fifty percent (50%) of waste tonnage from a project be diverted from disposal, and that all new residential (and commercial) construction within the City shall submit and obtain approval for a waste management plan prior to construction activities. Compliance with these measures would ensure that the Project does not result in a significant impact during the construction phase of the Project. Further, compliance with policies in the General Plan for the reduction and recycling of solid waste would serve to reduce impacts of solid waste by promoting and encouraging the recycling of materials. Lastly, according to the California Department of Resources Recycling and Recovery (CalRecycle), the City has exceeded their target population disposal rate of 15.5 pounds per day per person, meaning that Clovis businesses are actually producing less solid waste than the target set by the State.[12] Consequently, a **less-than-significant** impact would occur.

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

Less-Than-Significant. See discussion 19d above.

20. WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			X	
c. Require the installation 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?			X	
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			X	

ENVIRONMENTAL SETTING

The Project site is located on an infill site surrounded by existing urban uses. The site's topography is relatively flat with level terrain with a partially developed commercial center.

[12] CalRecycle, City of Clovis, https://www2.calrecycle.ca.gov/LGCentral/DiversionProgram/JurisdictionDiversionPost2006, accessed August 2024.

DISCUSSION

a) *Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

Less-Than-Significant Impact. The Project is located at a site that is relatively flat with level terrain and is surrounded by existing development. Further, the road network is already in place from previous developments. Although the Project could result in temporary traffic detouring or closures during buildout, these delays would be temporary and would be coordinated with the City Engineering staff and other departments to ensure safe access to and from the area is maintained. Further, the site itself would be reviewed by City departments to ensure adequate site access and circulation is provided in the event of an emergency. Overall, a **less-than-significant** impact would occur.

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?*

Less-Than-Significant Impact. The Project site is relatively flat with level terrain, is partially developed, and is located on an infill site surrounded by existing urban uses. The general vicinity of the site is flat, therefore, is not of the type of topography nor in a location likely to exacerbate wildfire risks. Further, the Project would be required to comply with the latest fire codes and would be required to include sprinklers on the interior of the structures and require installation of several hydrants throughout the site. Lastly, the site plans would undergo review by the Clovis Fire Department to ensure that all fire safety regulations are met. Therefore, a **less-than-significant** impact would occur.

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. Installation of a private roadway network, water lines, and power lines would be required; however, these utilities and infrastructure are typical of development and would be constructed to standards of the respective agencies and departments which oversee them, as well as be required to comply all necessary plan review and permitting requirements of such departments and agencies. As such, a **less-than-significant** impact would occur.

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?*

Less-Than-Significant Impact. The City of Clovis has generally flat topography, and the site itself is in an area that is not in close proximity to hillsides that would expose people or structures to significant risks associates with downstream flooding or landslides as a result of runoff or post-fire slope instability. As such, a **less-than-significant** impact would occur.

21. MANDATORY FINDINGS OF SIGNIFICANCE

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

ENVIRONMENTAL SETTING

The Project is located on an infill site within the City of Clovis, substantially surrounded by existing development consisting of commercial and residential uses.

DISCUSSION

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

Less-Than-Significant Impact. As discussed throughout the Initial Study, the Project would not result in any significant impacts with implementation of mitigation measures prescribed above. Therefore, the Project would have a **less-than-significant** impact as it would not substantially degrade the quality of the environment.

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)?*

Less-Than-Significant Impact. The Project includes mitigation measures in certain topic areas identified throughout this Initial Study which would reduce potential impacts to a less-than-significant level. None of these impacts would be cumulatively considerable since most are either temporary impacts from construction or site specific. While air quality that is generally considered to be cumulatively measured, the Project was found to have a less-than-significant impact through compliance with existing regulations from the SJVPACD. As such, future Projects in the City would be required to comply with those same regulations, ensuring adequate mitigation as development occurs. Thus, a **less-than-significant** impact would occur.

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

Less-Than-Significant Impact. As discussed throughout the Initial Study, the Project would not result in a significant impact that could not be mitigated to a less-than-significant level. Therefore, a **less-than-significant** impact would occur.

I. Report Preparation

LEAD AGENCY

Lily Cha, MPA, AICP
Senior Planner
City of Clovis
Planning & Development Services

TECHNICAL STUDIES

Air Quality and Greenhouse Gas Analysis Memorandum
Golden Triangle Planned Commercial Center Master Plan
Acorn Environmental

Biological Resources Assessment
Golden Triangle Planned Commercial Center Master Plan
Acorn Environmental

Cultural Resources Inventory & Evaluation
Golden Triangle Planned Commercial Center Master Plan
Acorn Environmental

Noise Memorandum
Golden Triangle Planned Commercial Center Master Plan
JK Consulting Group, LLC

Vehicle Miles Traveled Analysis Memorandum
Golden Triangle Planned Commercial Center Master Plan
Jose Benavides
JLB Traffic Engineering, Inc.

MITIGATION MONITORING AND REPORTING PROGRAM
R2024-004

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
Aesthetics				
AES-1	The Project shall comply with Section 9.22.050, Exterior Light and Glare, of the Clovis Municipal Code, which requires light sources to be shielded and that lighting does not spillover to adjacent properties.	City of Clovis Planning	*After Construction Prior to Occupancy*	
Biological Resources				
BIO-1	**Worker Training:** Prior to construction, personnel shall complete worker environmental awareness training. The training shall present information on burrowing owls and notification procedures and shall direct workers to halt work and allow individual burrowing owls to move off-site of their own accord. Construction personnel shall provide signatures confirming completion of the training, and copies of the training shall be maintained and made available to applicable agencies upon request	City of Clovis Planning	*Prior to Permits and During Construction*	
BIO-2	**Burrowing Owl:** A pre-construction survey shall be conducted by a qualified biologist no more than 14 days prior to construction activities. The preconstruction survey shall be conducted in accordance with the "Take Avoidance Surveys" described in California Department of Fish and Wildlife's (CDFW) Staff Report on Burrowing Owl Mitigation (CDFW, 2012). If burrowing owls or sign	City of Clovis Planning	*Prior to Permits and During Construction*	

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
	of burrowing owls is not observed, results shall be documented, and no further action is necessary. Should burrowing owl burrows be observed, CDFW shall be consulted to determine necessary avoidance or exclusion methods. Mitigation shall follow CDFW recommended measures in CDFW's Staff Report on Burrowing Owl Mitigation (CDFW, 2012), and shall follow the below steps: • If the burrows can be avoided, a qualified biologist shall demarcate a no-disturbance buffer around the burrows using high visibility fencing or pin flagging. The size of the buffer shall be established with CDFW and shall remain in place until construction is completed. Buffer size for burrowing owl, as detailed in CDFW's staff report, range from 50 meters to 500 meters depending on the level of disturbance and timing of disturbance. • Should full avoidance be infeasible, CDFW shall be consulted to identify appropriate exclusion methods to be implemented prior to removal of the burrows. Consistent with the CDFW Staff Report, exclusion would not occur until a Burrowing Owl Exclusion Plan is approved by CDFW. • In order to mitigate for loss of burrows that are excluded, the Burrowing Owl Exclusion Plan shall identify one of the following mitigation options, or a combination thereof,			

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
	as outlined in the CDFW Staff Report "Mitigating Impacts" section: o Creation of artificial burrows commensurate to the number of burrows excluded; o Permanent conservation of like habitat, such as conservation easement; o Purchase of conservation bank credits; and/or o An alternative mitigation strategy, as developed with and approved by CDFW.			
BIO-3	**Nesting Birds:** If construction activities would occur during the nesting season (February 1 through August 31), a pre-construction survey for the presence of nesting bird species shall be conducted by a qualified biologist on and within 500 feet of proposed construction areas, as accessible. The survey shall occur within five days of the commencement of construction activities. If active nests are identified in these areas, one of the following should occur: • A qualified biologist shall establish a disturbance-free buffer zone using high-visibility fencing or flagging. The size of the buffer shall be determined by the qualified biologist based on the needs of the species. The buffer shall remain in place until either (1) construction activities are completed, (2) the conclusion of the nesting season, or (3)	City of Clovis Planning	*Prior to Permits and During Construction*	

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
	the qualified biologist determines that the young have fledged and are no longer dependent on the nest, or the nest has failed. If construction activities are halted for a period of more than 14 days, an additional preconstruction nesting bird survey shall be conducted. Or • Commencement of construction activities shall be postponed until after the nesting season, or until after a qualified biologist has determined the young have fledged and are independent of the nest site or the nest has failed.			
Cultural Resources				
CULT-1	If prehistoric or historic-era cultural or archaeological materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants.	City of Clovis Planning	*Prior to Permits and During Construction*	

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
	If the qualified professional archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation. If a potentially eligible resource is encountered, then the qualified professional archaeologist, the Lead Agency, and the project proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met.			
CULT-2	If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the Native American Heritage Commission, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5(c) shall guide the potential Native American	City of Clovis Planning	*Prior to Permits and During Construction*	

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
	involvement, in the event of discovery of human remains, at the direction of the County coroner. All reports, correspondence, and determinations regarding the discovery of human remains on the project site shall be submitted to the Lead Agency.			
Geological Resources				
GEO-1	If prehistoric or historic-era cultural materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist and/or paleontologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants. If the qualified professional determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation. If a potentially-eligible resource is encountered, then the qualified professional archaeologist and/or paleontologist, the Lead Agency, and the project	City of Clovis Planning	*Prior to Permits and During Construction*	

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
	proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met.			
Tribal Cultural Resources				
TCR-1	If cultural or archaeological materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants. If the qualified professional archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.	City of Clovis Planning	*Prior to Permits and During Construction*	

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
	If a potentially eligible resource is encountered, then the qualified professional archaeologist, the Lead Agency, and the project proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met.			
TCR-2	If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the Native American Heritage Commission, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5(c) shall guide the potential Native American involvement, in the event of discovery of human remains, at the direction of the County coroner. All reports, correspondence, and determinations regarding the discovery of human remains on the project site shall be submitted to the Lead Agency.	City of Clovis Planning	*Prior to Permits and During Construction*	

APPENDIX A

Air Quality and Greenhouse Gas Memorandum

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Technical Memorandum:

Air Quality and Greenhouse Gas Assessment of the Golden Triangle Planned Commercial Center Master Plan City of Clovis, California

May 15, 2024

Introduction

The purpose of this memorandum is to evaluate the potential air quality and greenhouse gas (GHG) emissions of a proposed update to the Development Plan and Master Site Plan for the Golden Triangle Planned Commercial Center (PCC) (Proposed Project) in the City of Clovis (City) (see **Figure 1** in **Appendix A**). The City has requested this analysis in support of environmental documentation for compliance with the California Environmental Quality Act (CEQA). This memorandum estimates the air quality and GHG emissions of the Proposed Project and compares these emissions to the San Joaquin Valley Air Pollution Control District (SJVAPCD) and City thresholds, following the SJCAPCD methodology within the *Guidance for Assessing and Mitigating Air Quality Impacts* (GAMAQI).

Project Description

Project Site Location and Setting

The Golden Triangle PCC consists of approximately 37 acres located southwest of the Clovis Avenue and Magill Avenue intersection (PCC Boundary) (see **Figure 1** in **Appendix A**). The PCC Boundary is bordered by Magill Avenue-State Route (SR) 168 to the north, the Clovis Old Town Trail to the south, and Clovis Avenue to the east (see **Figure 2** in **Appendix A**). The study area addressed in this memorandum is limited to the proposed development boundary (roughly 20 acres) within the larger PCC Boundary (Study Area or project site). The location of the project site relative to the PCC Boundary can be seen in **Figure 3** in **Appendix A**. Regional and local access to the project site is provided by Highway 168. In addition, local access is provided by Clovis Avenue and Herndon Avenue.

The project site is currently zoned Planned Commercial Center according to the City of Clovis 2014 General Plan. Approximately half of the PCC Boundary (15.6 acres) is already developed with commercial buildings, paved parking lots and driveways, graveled lots for storage of RVs and other vehicles, and three residences. The remaining area, including the project site, is undeveloped and has no major vegetation. The West Branch Clovis Ditch bisects the project site, and a stormwater detention basin is located in the southwestern area of the project site.

Proposed Land Uses

The Proposed Project would allow for the development of retail, restaurant, commercial, and office uses and ancillary infrastructure throughout the project site (see **Table 1**). Proposed development includes the Mad Duck Brewery Campus including approximately 20,802 square feet (sf) of brewery, tasting room, banquet, wine lounge, and office space; and multiple car dealerships and associated repair/maintenance shops consisting of 139,019 sf. Additionally, the Proposed Project provides for the future development of two fast food restaurants with drive-thrus, each approximately 3,880 sf with ten employees; two office buildings consisting of approximately 15,000 sf; and three retail buildings consisting of approximately 10,526 sf. Surface parking lots would be developed throughout the project site. Electric vehicle charging stations would be installed in compliance with the 2022 CalGreen Code, which for the Proposed Project generally requires that 20% of the parking spaces be installed with EV ready infrastructure, and that 25% of those spaces be equipped with EV charging stations. Solar energy generation facilities, including photovoltaic panels mounted on rooftops and covered parking areas, and battery storage systems, would be utilized to supply at least a portion of the Proposed Project's energy demands in compliance with the 2022 CalGreen Code. The Proposed Project site plan is provided as **Figure 4** in **Appendix A**.

Given the relatively level topography of the project site, grading activities associated with the Proposed Project would be minor and are not anticipated to include the import of fill or export of cut. Drainage facilities would be designed and constructed to collect and route stormwater runoff from roads, sidewalks, roofs, and landscape areas to different water quality and/or flow control facilities prior to discharge into municipal stormwater collection facilities. The West Branch Clovis Ditch would be realigned and undergrounded within the project site. The Proposed Project will include connections to existing utilities located within the project site or adjacent public right-of-ways and developed areas.

All components of the Proposed Project shall adhere to development standards of the Clovis Municipal Code and the Golden Triangle PCC or update the PCC development standards through the rezone amendment. Construction is anticipated to begin in 2026 and last for approximately 14 months.

Design Elements and Best Management Practices

For this analysis, the following design elements, and best management practices (BMPs) are assumed to be incorporated into the Proposed Project to reduce the potential for adverse air quality impacts and to comply with SJVAPCD rules and regulations. These requirements are described within the SJVAPCD's *Guidance for Assessing and Mitigating Air Quality Impacts* (GAMAQI) dated March 19, 2015. As stated therein "The [SJVAPCD] recommends that any air quality assessment reflect emission reductions achieved through compliance with [SJVAPCD] rules and regulations."

Table 1: Proposed Facilities within the Study Area/Project Site

Component	Approximate Square Footage (sf)
Car Dealerships / Repair Shops	
Building "A"	33,199 sf
Building "B"	48,776 sf
Building "C"	35,613 sf
Building "J"	21,431 sf
	139,019 sf
Mad Duck Campus	
Future Building "D"	2,800 sf
Building "E" Brewery, Offices, and Tasting Room Building	10,575 sf
Building "F" CRU Wine Lounge Building	2,500 sf
Building "G" Barn/Banquet Building	3,575 sf
Building "G1" (Future Addition)	1,352 sf
	20,802 sf
Restaurant with Drive-Thru (Future)	
Building "K"	3,880 sf
Building "L"	3,880 sf
	7,760 SF
Professional Office (Future)	
Building "Q"	2,816 sf
Building "R"	12,184 sf
	15,000 sf
Retail (Future)	
Building "P1"	2,566 sf
Building "P2"	4,600 sf
Building "S"	3,360 sf
	10,526 SF
	193,107 sf

SJVAPCD Regulation VIII (Fugitive PM_{10} Prohibition)

The purpose of Regulation VIII (Fugitive PM10 Prohibitions) is to reduce ambient concentrations of fine particulate matter (PM10) by requiring actions to prevent, reduce or mitigate anthropogenic fugitive dust emissions. Relevant Rules contained within Regulation VIII include SJVAPCD Rule 8021 "Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities". In accordance with Rule 8021, the Proposed Project will:

- Apply sufficient water to building exterior surfaces, unpaved surface areas where equipment will operate, and razed building materials to limit VDE to 20% opacity throughout the duration of razing and demolition activities.
- Apply sufficient dust suppressants to unpaved surface areas within 100 feet where materials from razing or demolition activities will fall in order to limit VDE to 20% opacity.
- Apply sufficient dust suppressants to unpaved surface areas where wrecking or hauling equipment will be operated in order to limit VDE to 20% opacity.
- Handling, storage, and transport of bulk materials on-site or off-site resulting from the demolition or razing of buildings shall comply with the requirements specified in Rule 8031 (Bulk Materials)
- Apply water within 1 hour of demolition to unpaved surfaces within 100 feet of the demolished structure.
- Prevention and removal of carryout or trackout on paved public access roads from demolition operations shall be performed in accordance with Rule 8041 (Carryout and Trackout).
- Control the fugitive dust emissions to meet the requirements in Table 8021-1 of Rule 8021
- An owner/operator shall limit the speed of vehicles traveling on uncontrolled unpaved access/haul roads within construction sites to a maximum of 15 miles per hour.
- An owner/operator shall post speed limit signs that meet State and Federal Department of Transportation standards at each construction site's uncontrolled unpaved access/haul road entrance. At a minimum, speed limit signs shall also be posted at least every 500 feet and shall be readable in both directions of travel along uncontrolled unpaved access/haul roads.
- Cease outdoor construction, excavation, extraction, and other earthmoving activities that disturb the soil whenever VDE exceeds 20% opacity. Indoor activities such as electrical, plumbing, dry wall installation, painting, and any other activity that does not cause any disturbances to the soil are not subject to this requirement.
- Continue operation of water trucks/devices when outdoor construction excavation, extraction, and other earthmoving activities cease, unless unsafe to do so.
- An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. Construction activities shall not commence until the APCO has approved or conditionally approved the Dust Control Plan. An owner/operator shall provide written notification to the APCO within 10 days prior to the commencement of earthmoving activities via fax or mail. The requirement to submit a dust control plan shall apply to all such activities conducted for residential and non-residential (e.g., commercial, industrial, or institutional) purposes or conducted by any governmental entity.
- An owner/operator may submit one Dust Control Plan covering multiple projects at different sites where construction will commence within the next 12 months provided the plan includes each project size and location, types of activities to be performed. The Dust Control Plan shall specify the expected start and completion date of each project.
- The Dust Control Plan shall describe all fugitive dust control measures to be implemented before, during, and after any dust generating activity.
- A Dust Control Plan shall contain all the information described in Section 6.3.6 of this rule. The APCO shall approve, disapprove, or conditionally approve the Dust Control Plan within 30 days of plan submittal. A Dust Control Plan is deemed automatically approved if, after 30 days following receipt by the District, the District does not provide any comments to the owner/operator regarding the Dust Control Plan.

- An owner/operator shall retain a copy of an approved Dust Control Plan at the project site. The approved Dust Control Plan shall remain valid until the termination of all dust generating activities. Failure to comply with the provisions of an approved Dust Control Plan is deemed to be a violation of this rule. Regardless of whether an approved Dust Control Plan is in place or not, or even when the owner/operator responsible for the plan is complying with an approved Dust Control Plan, the owner/operator is still subject to comply with all requirements of the applicable rules under Regulation VIII at all times.

SJVAPCD Rule 9510 (Indirect Source Review)

District Rule 9510 (ISR) is intended to reduce a project's impact on air quality through project design elements or mitigation by payments of applicable off-site mitigation fees. The SJVAPCD has identified a list of Emission Reduction Clean Air Measures that are intended to assist land use agencies and developers in reducing air quality impacts associated with development projects. These measures can be incorporated into the project's design to reduce air quality impacts, and it is recommended they be included in the ISR Application. In accordance with District Rule 9510, the Proposed Project has incorporated the following measures:

- Utilize the cleanest available off-road construction equipment, including the latest Tier diesel or electric equipment (e.g., scrapers, graders, trenchers, tractors, loaders, backhoes, etc.).
- Install and utilize solar panels as a renewable energy source.
- Utilize electrical outlets on the exterior of project buildings as necessary for sufficient powering of electric landscaping equipment.
- Provide design elements that enhance walkability and connectivity such as sidewalk coverage, pedestrian crossings, and presence of street trees.
- Provide a pedestrian access network to link areas of the project site with existing and planned external streets and pedestrian facilities to encourage people to walk instead of drive. The parking lot includes clearly marked pedestrian pathways between transit facilities and building entrances, including the existing bus stop on Clovis Avenue in the northeastern portion of the project site. Pedestrian access will be retained between bus service and major transportation points and to destination points within the project.
- Implement a Vehicle Idling Policy that requires all vehicles under company control to adhere to a 5-minute idling policy and/or to minimize the idling time (e.g., 5-minute maximum) for construction-related vehicles.

Note, some Clean Air Measures contained in Rule 9510 are not applicable to the Proposed Project (e.g., those pertaining to residential heating devices) and are not included in the list above or the ISR Application prepared for the Proposed Project.

On-Site Energy Generation

As noted above, the Proposed Project includes solar energy generation facilities and battery storage systems that would be utilized to supply at least a portion of the project's energy demands. However, emission reductions associated with the project's solar energy generation facilities cannot be quantified at this time since the quantity of photovoltaic panels and battery storage capacity are yet to be determined. It should be noted that project's implementation of solar energy generation facilities and battery storage systems is consistent with the California Air Pollution Control Officers Association's (CAPCOA) mitigation measure Alternative Energy (AE)-1 and AE-2 in addition to 2022 CalGreen Code.

Environmental Setting

San Joaquin Valley Air Basin

The City of Clovis is located within the San Joaquin Valley Air Basin (SJVAB), which includes Fresno, Kern (western portion), Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare counties. Fresno County is unclassified or in attainment for all state and federal ambient air quality standards except for the state and federal ozone standards, state PM_{10}[1] standards, and state and federal $PM_{2.5}$[2] standards.

The SJVAB is approximately 250 miles long and 35 miles in width and is bordered by the Coast Range Mountains on the west, the Sierra Nevada mountains on the east, and the Tehachapi Mountains to the south. Marine air, which often enters the Basin from the San Joaquin River Delta, causes the wind patterns found inside the SJVAB. The Tehachapi Mountains block airflow in from the south, the Coastal Range blocks wind entry into the Valley from the west, and the tall Sierra Nevada Mountain Range acts as a formidable barrier to the east. Weak airflow caused by these topographical factors is vertically constrained by high atmospheric pressure above the Valley. The SJVAB is hence extremely vulnerable to pollutant buildup over time. The majority of the mountains in the area are higher than summer inversion layers.

The closest air quality monitoring station is in the City of Clovis along N. Villa Avenue, approximately 1.25 miles southwest of the project site. The most recent available data from this station shows 34 days above the federal 8-hour ozone standard in 2021 and 23 days above the standard in 2022. In addition, data from this station shows 9 days above the state 1-hour ozone standard in 2021 and 3 days above the standard in 2022. Available data from this station show no measured exceedances of the national PM_{10} standard in 2021 and 2022, and 111 measured exceedances of the state PM_{10} standard in 2021 and 73 measured exceedances in 2022. Available data from this station also shows 22 measured exceedances of the national $PM_{2.5}$ standard in 2021 and 4 measured exceedances in 2022 (CARB, 2024).

Sensitive Receptors

As described in the GAMAQI, sensitive receptors are of the population most susceptible to poor air quality, including children, the elderly, and those with pre-existing serious health problems affected by air quality. Schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities are where sensitive individuals are most likely to spend extended amounts of time, and these sensitive land uses may also be referred to as sensitive receptors. The nearest sensitive receptors to the project site are residential neighborhoods including single- and multi-family residential units directly southwest (50 feet) from the Study Area. There are additional residential neighborhoods approximately 250 feet east of the northeastern boundary of the Study Area, but an existing commercial district lies between those neighborhoods and the project site. The nearest schools are approximately 1,700 feet north and 1,800 feet south, and the nearest medical facility is located approximately 2.2 miles east of the project site.

[1] PM_{10} is particulate Matter 10 microns or less in diameter.
[2] $PM_{2.5}$ is particulate matter 2.5 microns or less in diameter.

Regulatory Setting

Federal Clean Air Act

The federal Clean Air Act (CAA) required the U.S. Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards (NAAQS) to define levels of air quality that protect the public health and welfare from the known adverse effects of air pollutants and set deadlines for attainment. If a criteria air pollutant (CAP) does not meet the NAAQS criteria for the specific CAP, then the region or area is designated by the EPA as nonattainment. Once an area reaches attainment for particular criteria pollutant, then the area is redesignated attainment or maintenance. The CAA places most of the responsibility on states to achieve compliance with the NAAQS. States, municipal statistical areas, and counties that contain areas of nonattainment are required to develop a State Implementation Plan (SIP), which outlines policies and procedures designed to bring the state into compliance with the NAAQS. The CAA amendments of 1990 added requirements for states with nonattainment areas to revise their state implementation plans (SIPs) to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. The EPA has the responsibility to review all state SIPs to determine conformance to the mandates of the CAA and determine whether implementation would achieve air quality goals. If the EPA determines a SIP to be inadequate, a Federal Implementation Plan may be prepared for the nonattainment area that imposes additional control measures. Failure to submit an approvable SIP or to implement the plan within the mandated period may result in sanctions to transportation funding and stationary air pollution sources in the air basin.

California Clean Air Act

The California Clean Air Act (CCAA), adopted in 1988, required the establishment of the California Ambient Air Quality Standards (CAAQS). CAAQSs were created for the following pollutants: sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the six national CAPs. The CAAQS are generally more stringent than the NAAQS. In addition, the CAAQS incorporate a margin of safety to protect sensitive individuals. The CCAA requires that all local air districts in the state endeavor to achieve and maintain the CAAQS by the earliest practical date. The CCAA requires that air quality plans be prepared for areas of the state that have not met state air quality standards for O_3, CO, NO_2, and SO_2. Among other requirements of the CCAA, the plans must include a wide range of implementable control measures, which often include transportation control measures and performance standards. In order to implement the transportation-related provisions of the CCAA, local air pollution control districts have been granted explicit authority to adopt and implement transportation control measures.

California Air Resources Board

The California Air Resources Board (CARB) is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementation of the CCAA. CARB has primary responsibility in California to develop and implement air pollution control plans designed to achieve and maintain the NAAQS. Collectively, all regional air pollution control plans or air quality management plans to achieve the NAAQS throughout the state constitute the SIP. As California's air quality management agency, CARB regulates mobile emission sources and oversees the activities of county air pollution control districts and regional air quality management districts. CARB regulates local air quality indirectly by using state standards and vehicle emission standards, conducting research

activities, and carrying out planning and coordinating activities. CARB also provides land use guidance, as it relates to air quality, including criteria for siting schools and other sensitive land uses.

California Global Warming Solutions Act of 2006 (AB-32)

Signed by the California Governor on September 27, 2006, Assembly Bill (AB) 32 codifies a key requirement of EO S-3-05, specifically the requirement to reduce GHG emissions in California to 1990 levels by 2020. AB 32 tasks CARB with monitoring state sources of GHGs and designing emission reduction measures to comply with emission reduction requirements. However, AB 32 also continues the efforts of the CAT to meet the requirements of EO S-3-05 and states that the CAT should coordinate overall state climate policy.

To accelerate the implementation of emission reduction strategies, AB 32 requires that CARB identify a list of discrete early action measures that can be implemented relatively quickly. In October 2007, CARB published a list of early action measures that it estimated could be implemented and would serve to meet about 25% of the required 2020 emissions reductions (CARB, 2007). To assist CARB in identifying early action measures, the CAT published a report in April 2007 that updated their 2006 report and identified strategies for reducing GHG emissions (CAT, 2007). In its October 2007 report, CARB cited the CAT strategies and other existing strategies that can be utilized to achieve the remainder of the emissions reductions (CARB, 2007a). AB 32 requires that CARB prepare a comprehensive "scoping plan" that identifies all strategies necessary to fully achieve the required 2020 emissions reductions. Consequently, in December 2008, CARB released its scoping plan to the public; the plan was approved by CARB on December 12, 2008. An update to the Climate Change Scoping Plan occurred on May 22, 2014, which included new strategies and recommendations to ensure reduction goals of near-term 2020 are met with consideration of current climate science.

A second update to the Climate Change Scoping Plan was adopted on December 14, 2017. The 2017 Scoping Plan Update addresses the 2030 target established by Senate Bill 32, as discussed below, and establishes a proposed framework of action for California to meet a 40 percent reduction in GHG by 2030 compared to 1990 levels. The key programs that the 2017 Scoping Plan Update builds on include the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, increasing the use of renewable energy in the state, and reduction of methane emissions from agricultural and other wastes.

On December 15, 2022, CARB adopted the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan), which builds on the 2017 Scoping Plan as well as the requirements set forth by AB 1279, which directs the State to become carbon neutral no later than 2045. To achieve this statutory objective, the 2022 Scoping Plan lays out how California can reduce GHG emissions by 85% below 1990 levels and achieve carbon neutrality by 2045. The 2022 Scoping Plan creates a sector-by-sector roadmap for California that deploys "a broad portfolio of existing and emerging fossil fuel alternatives and clean technologies, and align with statutes, Executive Orders, Board direction, and direction from the governor" (CARB, 2022).

The 2022 Scoping Plan recognizes three methods for evaluating a project's alignment with the State's climate goals in CEQA GHG analyses. These methods can be used at the discretion of lead agencies for the purpose of determining if a project would have a potentially significant impact on GHG emissions. These methods are:

- Determine if the project includes key project attributes that reduce operational GHG emissions while simultaneously advancing fair housing;
- Determine if the project would result in net-zero GHG emissions; and
- Assessment of a project's GHG impact by employing a threshold of significance recommended by the applicable air district or other lead agencies.

Senate Bill (SB) 1020: Clean Electricity

SB 1020 codifies into law a state policy that eligible renewable energy resources and zero-carbon resources supply: 1) 90% of all retail sales of electricity to California end-use customers by December 31, 2035, 95% by December 31, 2040, and 100% by December 31, 2045; and 2) 100% of electricity procured to serve all State agencies by December 31, 2035. To achieve these objectives, SB 1020 requires that CARB and the California Energy Commission (CEC) use unspecified programs authorized under existing statutes and employ measures to ensure that implementation of the policy does not cause increases in GHG emissions elsewhere, a concept also known as leakage.

Building Energy Standards

The **2022 Title 24 Standards** improve upon the 2019 standards for new construction, additions, and alterations to residential and nonresidential buildings. The CEC adopted the 2022 Title 24 Energy Code in August 2021 and the California Building Standards Commission approved incorporating the updated code into the California Building Standards Code (CALGreen) in December 2021. The 2022 Energy Code went into effect on January 1, 2023. The 2022 Energy Code encourages energy-efficient approaches to move towards building decarbonization. Emphasis is placed on heat pumps for space and water heating, as well as electric vehicle (EV) charging and photovoltaic (PV) and battery storage systems. Finally, ventilation standards are strengthened to improve to improve indoor air quality.

San Joaquin Valley Air Pollution Control District

Guidance for Assessing and Mitigating Air Quality Impacts

The SJVAPCD's February 2015 Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) was developed to assist lead agencies in evaluating air quality and climate impacts from proposed land use projects and plans in the SJVAB. The GAMAQI contains instructions and examples for how a lead agency can evaluate, measure, and mitigate air quality and climate impacts generated from land use construction and operational activities. They focus on generated emissions of criteria air pollutants and precursors, odors, toxic air contaminants, and greenhouse gases from local plans and projects. The GAMAQI provides thresholds of significance which gives lead agencies a method to assess a project's potential impacts.

Screening Criteria

In the interest of streamlining California Environmental Quality Act (CEQA) requirements, the SJVAPCD's Small Project Analysis Levels (SPAL) guidance identifies project types and sizes and corresponding vehicle trips that would not exceed applicable thresholds of significance for criteria pollutants. The Screening Criteria for criteria air pollutants and their precursors are not thresholds of significance, rather they are conservative guidelines that a lead agency can use to qualitatively assess whether a project could result in potentially significant impacts. If all screening criteria are met, then the lead agency does not need to perform a detailed assessment and can presume that potential impacts due to criteria air pollutants are less than significant.

If a project is consistent with all of the following screening criteria related to construction activities, then detailed air quality modeling is not required:

- The project size is at or below the applicable screening level size and Average Daily One-way Trips for all fleet types (except HHDT) or Average Daily One-Way for HHDT Trips only as shown in Tables 1 through 6 of the SPAL guidance.

Significance Thresholds

If a project does not meet the screening criteria discussed above, the SJVAPCD provides project-level air quality thresholds of significance that include numerical thresholds for construction and operation emissions of local carbon monoxide (CO), ROG, NOx, Sox, PM_{10}, and $PM_{2.5}$. Construction and operation thresholds of significance use annual emissions in tons per year (tpy). In addition to local CO, ROG, NOx, Sox, PM_{10}, and $PM_{2.5}$, there are odor and local risks and hazards thresholds of significance. Should a project exceed the thresholds of significance, the GAMAQI provides recommendations for reducing potential air quality and climate impacts from land use development projects. In terms of GHG thresholds, the GAMAQI summarizes the recommendations contained in the SJVAPCD's 2009 "Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA", described in more detail below.

Toxic Air Contaminants

The SJVAPCD's GAMAQI provides guidance in addressing project-related toxic air contaminants (TACs) such as diesel particulate matter (DPM), lead, and benzene, and the associated risks to the local community. Commons sources of TACs include freeways, ports, railyards, industrial facilities, gas stations and backup diesel generators.

The SJVAPCD has identified the following significance thresholds for local risks and hazards:

- Carcinogens: Maximally Exposed Individual risk equals or exceeds 10 in one million.
- Non-Carcinogens: Acute- Hazard Index equals or exceeds 1 for the Maximally Exposed Individual.
- Non-Carcinogens: Chronic- Hazard Index equals or exceeds 1 for the Maximally Exposed Individual.

These are the cumulative thresholds which apply to siting new sources and receptors. CARB's Pollution Mapping Tool provides emissions data for toxic air contaminants from large facilities in California. The mapping tool identifies St. Agnes Medical Center as the nearest large facility that generates toxic air contaminants, which is located approximately 3.5 miles west of the project site. Considering 2020 emissions, the St. Agnes Medical Center generates 10.3 lbs/year of DPM and 28 lbs/year of formaldehyde.

Climate Change Action Plan

In August 2008, the SJVAPCD adopted the Climate Change Action Plan (CCAP). The CCAP directed SJVAPCD to develop guidance to assist lead agencies, project proponents, permit applicants, and interested parties in assessing and reducing the impacts of project specific GHG emissions on global climate change.

Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA

On December 17, 2009, SJVAPCD adopted Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA; which outlined the SJVAPCD's methodology for assessing a project's significance for GHGs under CEQA. The following criteria was outlined in the document to determine project significance:

- Projects determined to be exempt from the requirements of CEQA would be determined to have a less than significant individual and cumulative impact for GHG emissions and would not require further environmental review, including analysis of project specific GHG emissions. Projects exempt under CEQA would be evaluated consistent with established rules and regulations governing project approval and would not be required to implement BPS.
- Projects complying with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the project is located would be determined to have a less than significant individual and cumulative impact for GHG emissions. Such plans or programs must be specified in law or approved by the lead agency with jurisdiction over the affected resource and supported by a CEQA compliant environmental review document adopted by the lead agency. Projects complying with an approved GHG emission reduction plan or GHG mitigation program would not be required to implement BPS.
- Projects implementing Best Performance Standards would not require quantification of project specific GHG emissions. Consistent with CEQA Guidelines, such projects would be determined to have a less than significant individual and cumulative impact for GHG emissions.
- Projects not implementing Best Performance Standards would require quantification of project specific GHG emissions and demonstration that project specific GHG emissions would be reduced or mitigated by at least 29 percent, compared to Business-as-Usual (BAU), including GHG emission reductions achieved since the 2002-2004 baseline period. Projects achieving at least a 29 percent GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG.
- Notwithstanding any of the above provisions, projects requiring preparation of an Environmental Impact Report for any other reason would require quantification of project specific GHG emissions. Projects implementing BPS or achieving at least a 29% GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG.

City of Clovis

The City addresses air quality goals and policies in the Air Quality Element of the City's General Plan, which works to improve air quality through strategies such as effective land use and transportation planning, regional cooperation, and emissions reduction. The following General Plan policies from the Air Quality Element are applicable to the Proposed Project:

- **Policy 1.2**: Sensitive Land Uses. Prohibit, without sufficient mitigation, the future siting of sensitive land uses within the distances of emissions sources as defined by the California Air Resources Board.
- **Policy 1.3**: Construction Activities. Encourage the use of best management practices during construction activities to reduce emissions of criteria pollutants as outlined by the San Joaquin Valley Air Pollution Control District (SJVAPCD).
- **Policy 1.8**: Trees. Maintain or plant trees where appropriate to provide shade, absorb carbon, improve oxygenation, slow stormwater runoff, and reduce the heat island effect.
- **Policy 2.6**: Innovative Mitigation. Encourage innovative mitigation measures to reduce air quality impacts by coordinating with the SJVAPCD, project applicants, and other interested parties.

Air Quality Impact Assessment

Methods

Screening Criteria

First, the Proposed Project was assessed against the SJVAPCD's screening criteria to determine whether or not detailed air quality modeling was required. The characteristics of the Proposed Project do not meet SJVAPCD's SPAL and therefore further assessment of construction and operational criteria air pollutant emissions is required.

Detailed Air Quality Modeling

Emissions from construction and operation of the Project were calculated using the California Emissions Estimator Model, Version 2022.1.1.19 (CalEEMod). Emissions were estimated assuming that construction would begin in begin in October 2026 and last for 14 months.

Construction Criteria Pollutant Emissions

Construction activities including site preparation, earth moving, building, and other general construction activities can generate air pollution. While construction activities are temporary in nature, short-term impacts can contribute to exceedances of air quality standards. The emissions generated from construction activities include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips.

CalEEMod emissions results are summarized below and included in **Appendix B**. Construction emissions are summarized in **Table 2**.

Table 2: Estimated Construction Emissions

	tons/year					
	ROG	**NOx**	**CO**	**PM_{10}**	**$PM_{2.5}$**	**Sox**
Maximum Emissions per Year	0.49	1.47	1.99	0.18	0.11	<0.005
SJVAPCD Threshold of Significance	10	10	100	15	15	27
Exceed Level?	No	No	No	No	No	No

Source: **Appendix B**

As shown in **Table 2**, Project construction emissions of criteria pollutants are all below SJVAPCD significance thresholds. In addition to the thresholds identified in the tables, SJVAPCD addresses construction-related fugitive dust emissions by recommending the incorporation of BMPs to reduce dust emissions, which are identified under the **Design Elements and BMPs** section above. Therefore, construction emissions are less than significant because they are less than the thresholds of significance.

Operational Criteria Pollutant Emissions

Operational emissions primarily occur from project-related vehicle trips, which may also cause localized air quality impacts (i.e., higher carbon monoxide concentrations or "hot-spots") near intersections or roadway segments in the project vicinity, as well as area sources from landscape equipment, heating and cooling units, and cooktops. The Proposed Project does not include components that would lead to other potential sources of emissions such as wastewater treatment or industrial processing.

Operational air pollutant emissions were calculated using CalEEMod based on information provided by Project representatives and the estimated traffic trip generation for the Proposed Project. Estimated operational emissions for the Project are included in **Appendix B** and summarized in **Table 3**.

Table 3: Estimated Operational Emissions

	tons/year					
	ROG	**NOx**	**CO**	**PM_{10}**	**$PM_{2.5}$**	**Sox**
Mobile	5.49	4.09	28.1	5.26	1.37	0.06
Area	0.93	0.01	0.76	< 0.005	< 0.005	< 0.005
Energy/Other	0.02	0.42	0.35	0.03	0.03	< 0.005
Total Emissions per Year	**6.44**	**4.51**	**29.2**	**5.29**	**1.40**	**0.06**
SJVAPCD Threshold of Significance	10	10	100	15	15	27
Exceed Level?	No	No	No	No	No	No

Source: **Appendix B**

As shown in **Table 3**, all criteria pollutant emissions would remain below their respective thresholds during Project operations. Criteria pollutant emissions generated during Project operations would not expose sensitive receptors to substantial pollutant concentrations. Therefore, operational emissions are less than significant because they are less than the thresholds of significance.

Toxic Air Contaminants

Most of the estimated health risks from Toxic Air Contaminants (TACs), according to the CARB California Almanac of Emissions and Air Quality (2005), can be attributable to a small number of compounds. The most significant of which is PM from diesel-fueled engines, known as diesel particulate matter (DPM). Diesel exhaust has hundreds of different gaseous and particulate components, many of which are harmful, and has been classified as a human carcinogen. DPM particles are so small that they penetrate deep into the lungs. According to studies, DPM concentrations are significantly greater near busy intersections and roads. Heavy-duty vehicles and off-road construction equipment are the main sources of diesel-related emissions. The CARB's Air Quality and Land Use Handbook (2005) provides recommendations for siting new sensitive land uses within proximity to facilities known to generate TACs, as depicted in **Table 4**.

Table 4: CARB Recommendations On Siting New Sensitive Land Uses Such As Residences, Schools, Daycare Centers, Playgrounds, Or Medical Facilities*

Source Category	Advisory Recommendations
Freeways and High-Traffic Roads[1]	- Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day.
Distribution Centers	- Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week). - Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points.
Rail Yards	- Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. - Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.
Ports	- Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or the ARB on the status of pending analyses of health risks.
Refineries	- Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.
Chrome Platers	- Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.
Dry Cleaners Using Perchloroethylene	- Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with 3 or more machines, consult with the local air district. - Do not site new sensitive land uses in the same building with perchloroethylene dry cleaning operations.
Gasoline Dispensing Facilities	- Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot separation is recommended for typical gas dispensing facilities.

1: The recommendation to avoid siting new sensitive land uses within 500 feet of a freeway was identified in CARB's Air Quality and Land Use Handbook published in 2005. CARB recently published a technical advisory to the Air Quality and Land Use Handbook indicating that new research has demonstrated promising strategies to reduce pollution exposure along transportation corridors.

*Notes:

• These recommendations are advisory. Land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.

• Recommendations are based primarily on data showing that the air pollution exposures addressed here (i.e., localized) can be reduced as much as 80% with the recommended separation.
• The relative risk for these categories varies greatly (see Table 1-2). To determine the actual risk near a particular facility, a site-specific analysis would be required. Risk from diesel PM will decrease over time as cleaner technology phases in.
• These recommendations are designed to fill a gap where information about existing facilities may not be readily available and are not designed to
substitute for more specific information if it exists. The recommended distances take into account other factors in addition to available health risk data (see individual category descriptions).
• Site-specific project design improvements may help reduce air pollution exposures and should also be considered when siting new sensitive land uses.
• This table does not imply that mixed residential and commercial development in general is incompatible. Rather it focuses on known problems like dry cleaners using perchloroethylene that can be addressed with reasonable preventative actions.
• A summary of the basis for the distance recommendations can be found in the ARB Handbook: Air Quality and Land Use Handbook: A Community Health Perspective.
Source: **ARB Air Quality and Land Use Handbook: A Community Health Perspective**

The Proposed Project land uses, including car dealerships, brewery campus, restaurants, and office buildings, would not generate significant quantities of toxic air contaminants; the Proposed Project does not include any of the TAC source categories presented in **Table 4**. As a result, the Proposed Project would not expose adjacent sensitive receptors to toxic air emissions or generate TAC's that would have a significant impact on the environment. Construction emissions of DPM would be reduced with compliance with SJVAPCD's Best Practices for Construction-Related Exhaust Emissions identified under the **Design Elements and BMPs** section above as well as adherence to SJVAPCD Rule 4702, which limits emissions from internal combustion engines. These measures include requiring operators of spark-ignited internal combustion engine rated at >50 bhp to not operate it in such a manner that results in exceeding specified emissions limits. Due to compliance with SJVAPCD's Best Practices for Construction-Related Exhaust Emissions and the limited extent and duration of diesel equipment use on the project site, potential health risk impacts would be negligible, and a detailed health risk assessment is not warranted.

CEQA Significance Criteria Review

To conclude this analysis, the Project is reviewed under the CEQA checklist form provided as Appendix G of the CEQA Guidelines.

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

As described above, with the incorporation of the identified design elements and BMPs, the Proposed Project would not exceed SJVAPCD significance thresholds for criteria air pollutants or TACS emissions. The SJVAPCD significance thresholds ensure compliance with adopted air quality plans, which include the 2018 PM2.5 Plan for the San Joaquin Valley and the 2022 Ozone Plan for the San Joaquin Valley. Accordingly, the Project would not conflict with or obstruct implementation of applicable air quality plans.

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?

The SJVAB is nonattainment for the state and federal ozone standards, state PM_{10} standards, and state and federal $PM_{2.5}$ standards. As shown in **Table 3**, Project emissions of criteria pollutants are all below SJVAPCD significance thresholds. In addition to the thresholds identified in the table, SJVAPCD addresses construction-related fugitive dust emissions by recommending the incorporation of BMPs to reduce dust emissions. These BMPs are identified under the **Design Elements and BMPs** section above. The Project would not result in a cumulatively considerable increase of any criteria pollutant.

c) Expose sensitive receptors to substantial pollutant concentrations?

With the incorporation of the identified design elements and BMPs, the Proposed Project would not expose sensitive receptors to substantial pollutant concentrations. As shown in **Table 3**, Project emissions of criteria pollutants are all below SJVAPCD significance thresholds. Operation of the Project would generate a relatively small number of truck trips on local roadways and would have a negligible impact on roadway TAC emissions.

Construction emissions of DPM would be reduced with compliance with SJVAPCD's Best Practices for Construction-Related Exhaust Emissions identified under the **Design Elements and BMPs** section above as well as adherence to SJVAPCD Rule 4702 which limits emissions from internal combustion engines. These measures include requiring operators of spark-ignited internal combustion engine rated at >50 bhp to not operate it in such a manner that results in exceeding specified emissions limits. Compliance with SJVAPCD's Best Practices for Construction-Related Exhaust Emissions and incorporation of design elements and BMPs will ensure that the Project will not generate substantial pollutant concentrations.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The likelihood that a project might produce odors should be assessed per CEQA guidelines. Any project that has the potential to regularly subject people to offensive odors should be considered to have a significant impact. Nuisance odors may be assessed qualitatively, taking into consideration project design elements and proximity to off-site receptors that would potentially be exposed to objectionable odors. It should be noted that individual responses to odors are highly variable and can result in a variety of effects. As noted previously, the Proposed Project would allow for the development of retail, restaurant, commercial, and office uses and ancillary infrastructure throughout the project site, including a brewery which is part of the Mad Duck Campus.

The potential significance of odor emissions depends on an odor source's strength and proximity to sensitive receptors. Various facilities that have been reported to cause odors in the SJVAB have been identified by the SJVAPCD, as shown in **Table 5**. The characteristics of the Project do not fit any of the facilities identified in **Table 5**. However, as noted in the SJVAPCD's GAMAQI, **Table 5** is not an all-inclusive list of facilities with the potential to generate odors. Odors from vehicle exhaust, waste disposal, and brewery operations would be small in quantity and duration during operation of the Proposed Project.

The SJVAPCD's *Guidance to Conduct Detailed Analysis for Assessing Odor Impacts to Sensitive Receptors* indicates that odor impacts would be considered significant if there were more that one (1) confirmed complaint per year average over a three (3) year period or if there were three (3) unconfirmed complaints

per year averaged over a three (3) year period. This odor analysis was based upon a review of odor complaints from a similar facility as recommended by SJVAPCD guidance since the Proposed Project does not currently exist.

There are two (2) existing Mad Duck Craft Brewing Company locations in the City of Fresno (3085 E. Campus Point / 7050 N Marks Ave), with the closest sensitive receptor less than 250 feet from one of the facilities. The Mad Duck Campus portion of the Proposed Project is located approximately 250 feet northeast of single-family residences. The SJVAPCD indicated that no odor complaints have been received for activities associated with the operation of the two existing facilities based upon a public records request to the SJVAPCD regarding odor complaints. Due to the nature of the Proposed Project and the proximity to sensitive receptors, no significant impact related to odors would occur during the operation of the Proposed Project. As a result, the Proposed Project would not result in other emissions adversely affecting a substantial number of people.

Table 5: Screening Levels For Potential Odor Sources

Type of Facility	Distance
Wastewater Treatment Facilities	2 miles
Sanitary Landfill	1 mile
Transfer Station	1 mile
Compositing Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	1 mile
Chemical Manufacturing	1 mile
Fiberglass Manufacturing	1 mile
Painting/Coating Operations (e.g., auto body shops)	1 mile
Food Processing Facility	1 mile
Feed Lot/Dairy	1 mile
Rendering Plant	1 mile

Source: **SJVAPCD 2024**

Climate/Greenhouse Gas Emissions Impact Assessment

Methods

Screening Criteria

First, the Proposed Project was assessed against the SJVAPCD's screening criteria to determine whether or not detailed GHG modeling was required. The characteristics of the Proposed Project do not meet SJVAPCD's SPAL and therefore further assessment of construction and operational GHG emissions is required.

Detailed Air Quality Modeling

Emissions from construction and operation of the Project were calculated using the California Emissions Estimator Model, Version 2022.1.1.19 (CalEEMod). Emissions were estimated assuming that construction would begin in begin in October 2026 and last 14 month. CalEEMod default assumptions were used except

where project-specific information was available. Trip generation rate inputs in the CalEEMod were derived from the Golden Triangle Traffic Impact Analysis Report prepared by JLB Traffic Engineering, Inc. (JLB, 2024a).

In emissions inventories, GHG emissions are typically reported as metric tons of carbon dioxide (CO_2) equivalents (CO_2e). CO_2e is calculated as the product of the mass emitted of a given GHG and its specific global warming potential (GWP). While methane (CH_4) and nitrous oxide (N_2O) have much higher GWPs than CO_2, CO_2 is emitted in higher quantities and it accounts for the majority of GHG emissions in CO_2e, both from commercial developments and human activity in general.

Thresholds of Significance

The SJVAPCD has not adopted numerical thresholds for GHG emissions and instead recommends a tiered approach to establish the significance of the GHG impacts on the environment:

i. If a project complies with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the project is located, then the project would be determined to have a less than significant individual and cumulative impact for GHG emissions;

ii. If a project does not comply with an approved GHG emission reduction plan or mitigation program, then it would be required to implement Best Performance Standards; and

iii. If a project is not implementing BPS, then it should demonstrate that its GHG emissions would be reduced or mitigated by at least 29 percent compared to Business as Usual.

Section 15064.4 of the CEQA *Guidelines* states that: "A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." In performing that analysis, the lead agency has discretion to determine whether to use a model or methodology to quantify greenhouse gas emissions, or to rely on a qualitative analysis or performance-based standards. In making a determination as to the significance of potential impacts, the lead agency should then consider:

1) the extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting,
2) whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project, and
3) the extent to which the project complies with regulations or requirements adopted to implement a Statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.

The City of Clovis and SJVAPCD have not adopted numerical thresholds for GHG emissions. In the absence of an adopted numeric GHG emissions threshold, the project's GHG emissions impact determination will be based on the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. This approach is consistent with the State CEQA *Guidelines* Section 15064.4, and the SJVAPCD's recommendation that if a project is consistent with an approved GHG emission reduction plan, it can be presumed that the project will not have significant GHG emission impacts.

The City of Clovis has not adopted a GHG reduction plan. Thus, the project is assessed for its consistency with CARB's adopted 2017 and 2022 Scoping Plans.

CEQA Guidelines Significance Criteria Review

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

Construction activities that emit GHG emissions include those from on- and off-road vehicles, stationary equipment such as air compressors and generators, as well as other sources including transportation, electricity use, natural gas use, and solid waste disposal. Because construction emissions are temporary and short-term, they contribute a relatively small portion of a project's overall lifetime GHG emissions and, in the absence of a construction-specific significant threshold and consistent with recommendations of air districts throughout the state, these construction emissions are amortized over the anticipated life of the Proposed Project and added to operational emissions. The estimated total GHG emissions during the construction phase of the Project are 379.00 MT CO_2e as shown in **Table 6**. Construction emissions amortized over a 30-year project lifetime (estimated) yield approximately 12.63 MT CO_2e per year. Total operational emissions combined with amortized construction emissions shows that the Project will generate 6,789.17 MT CO_2e per year as shown in **Table 6**. Operational sources of GHG emissions are primarily associated with mobile sources from vehicle trips, as well as indirect GHG emissions sources such as electricity use and solid waste disposal. The Proposed Project's GHG emissions are provided in **Table 6** for informational purposes only.

Table 6: Estimated GHG Emissions

Emission Source	Emissions (MT CO_2e per Year)
Construction Emissions	379.00 (12.63)[1]
Area	2.84
Energy	739.00
Mobile (On-Road Vehicles)	5,780.00
Waste	204.00
Water	47.30
Refrigeration	3.40
Total	**6,789.17**

Source: **Appendix B**
1 – Amortized over a 30-year project lifetime

As discussed, the significance of GHG emissions may be evaluated based on locally adopted quantitative thresholds or consistency with a regional GHG reduction plan (such as a Climate Action Plan). Neither the City of Clovis, County of Fresno, nor SJVAPCD has developed or adopted numeric GHG significance thresholds. Since no other local or regional Climate Action Plan is in place, the project is assessed for its consistency with CARB's adopted 2017 and 2022 Scoping Plans as discussed below.

Consistency with Greenhouse Gas Reduction Plans

The 2022 Scoping Plan lays forth a plan for achieving carbon neutrality goals and reducing anthropogenic GHG emissions by 85% below 1990 levels by 2045 as required by AB 1279. By implementing clean technologies and fuels, the plan's actions and results will result in significant decreases in the combustion of fossil fuels, further decreases in short-lived climate pollutants, support for sustainable development, increased action on working and natural lands to reduce emissions and sequester carbon, and the capture and storage of carbon.

The 2022 Scoping Plan focuses on augmenting the State's clean energy production and distribution infrastructure for a carbon-neutral future, of which the transition away from fossil fuels and towards electrification plays an important role in nearly all sectors. Specific methods include transitioning existing energy production and transmission infrastructure to produce zero-carbon electricity and hydrogen, and utilizing biogas resulting from wildfire management or landfill and dairy operations, among other substitutes. The State needs to add four times the solar and wind capacity by 2045 and about 1,700 times the amount of current hydrogen supply to reach this goal. As discussed in the 2022 Scoping Plan, EO N-79-20 requires that all new passenger vehicles sold in California will be zero-emission by 2035, and all other fleets will have transitioned to zero-emission as fully possible by 2045, which will reduce the percentage of fossil fuel combustion vehicles.

The 2022 Scoping Plan measures applicable to the Proposed Project include energy efficiency measures, water conservation and efficiency measures, and transportation and motor vehicle measures. As described above, the Project includes numerous design elements and BMPs to minimize the emissions of GHGs, including solar energy generation facilities and battery storage systems. While the Project is not a residential or Mixed-Use Residential project, it should be noted that the Project meets two of the six 'Key Project Attribute(s)' identified in Table 3 (Key Residential and Mixed-Use Project Attributes that Reduce GHGs) of the 2022 Scoping Plan. Specifically, the Project meets the following VMT Reduction attributes:

- Is located on an infill site that is surrounded by existing urban uses.
- Does not result in the loss or conversion of natural and working lands.

Below is a list of applicable strategies in the Scoping Plan and the Project's consistency with those strategies.

Energy Efficiency Measures

Energy efficiency measures of the 2022 Scoping Plan are intended to maximize and increase energy efficiency building and appliance standards, pursue additional efficiency efforts that include new technologies and new policy and implementation mechanisms, accelerate the reduction and replacement of fossil fuel production and consumption in California, and invest in energy efficiency from all retail providers of electricity in California. These measures cannot be implemented by an individual project or lead agency since they are statewide measures, but the Proposed Project is consistent with and would not conflict or obstruct these goals. These measures are designed to expand the use of green building practices to reduce the carbon footprint of proposed and existing buildings; the Proposed Project would be required to comply with the latest Title 24 standards of the California Code of Regulations, established by the California Energy Commission and the City's current building code, regarding energy conservation and green building standards. The Proposed Project would include solar energy generation and battery

systems that would reduce the reliance on fossil fuels. Therefore, the Proposed Project would comply with applicable energy measures.

Water Conservation Measures

The treatment and transport of water emits GHGs, and therefore the 2022 Scoping Plan includes water conservation and efficiency measures that are intended to continue efficiency programs and use cleaner energy sources to move and treat water. The Proposed Project would be required to comply with the latest Title 24 standards of the California Code of Regulations, which includes a variety of different measures, including reduction of wastewater and water use. In addition, the Proposed Project would install low maintenance landscape features. Therefore, the Proposed Project would not conflict with any of the water conservation and efficiency measures and would be consistent with this goal of the 2022 Scoping Plan.

Transportation and Motor Vehicle Efficiency

The goal of transportation and motor vehicle measures is to develop regional GHG emissions reduction targets for passenger vehicles. State goals include achieving 100 percent Zero-Emission Vehicle (ZEV) sales of light-duty vehicles by 2035 and medium-heavy-duty vehicles by 2040; accelerating the reduction and replacement of fossil fuel production and consumption in California; and achieving a per capita Vehicle Miles Traveled (VMT) reduction of at least 25 percent below 2019 levels by 2030 and 30 percent below 2019 levels by 2045. These measures cannot be implemented by a particular project or lead agency since they are statewide measures. When they are implemented, standards would be applicable to light-duty and medium-heavy-duty vehicles that would access the proposed commercial/retail development.

The Proposed Project is consistent with the State's Strategies for Achieving Success for VMT Reduction in that it is an infill development site that is surrounded by existing urban uses and is serviced by two routes of the Clovis Transit System with a third route currently contemplated for future access (Clovis Transit, 2024). Additionally, the Proposed Project would include the installation of EV charging stations and EV ready parking stalls consistent with the 2022 CalGreen Code requirements, resulting in the addition of roughly 32 EV charging stations within the project site. A VMT Analysis was prepared for the Proposed Project by JLB Traffic Engineering, Inc (JLB, 2024b). As stated therein, according to Section 2.1.1.5 of the City of Clovis Transportation Impact Analysis Guidelines, "Office or the employment portions of other non-residential uses with total daily employee based VMT per employee that is 13 percent less than the existing average baseline level in Fresno County…are shown in green in the maps provided…" (City of Clovis, 2022). The Project Site is located within a "green" area identified by the City as having low VMT in terms of VMT per employee (City of Clovis, 2022). As the proposed car dealership and office land use categories are employment driven land uses that are located in a low employee VMT zone, they are considered screened out from a detailed VMT analysis in accordance with the City's Transportation Impact Analysis Guidelines. The VMT analysis for the remaining land uses, including the retail land uses, brewery campus and restaurants, shows that the regional VMT, after taking into account internal trips, pass-by trips, and the installation of EV charging infrastructure, will be reduced by the Proposed Project, and would not exceed the VMT thresholds defined in City of Clovis Transportation Impact Analysis Guidelines (JLB, 2024b).

Therefore, the Proposed Project would not conflict or obstruct state or local plans pertaining to a reduction in GHG emissions from transportation and motor vehicle efficiency.

Summary

Therefore, the Proposed Project would comply with existing State regulations adopted to achieve the overall GHG emissions reduction goals identified in Executive Order B-30-15, SB 32, AB 197, and AB 1279 and would be consistent with applicable plans and programs designed to reduce GHG emissions. Therefore, the Proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

b) **Question B: Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

As described above, the Proposed Project includes numerous design elements and BMPs to minimize the emissions of greenhouse gases, including solar energy generation facilities and battery storage systems. The analysis under Question A details how the Proposed Project would be consistent with the State's 2022 Scoping Plan, which is designed to achieve the overall GHG emission reduction goals identified in Executive Order B-30-15, SB 32, AB 197, and AB 1279. Therefore, the Proposed Project would not conflict with any applicable plan, policy, or regulation to reduce GHG emissions. The Proposed Project would result in a less than significant impact.

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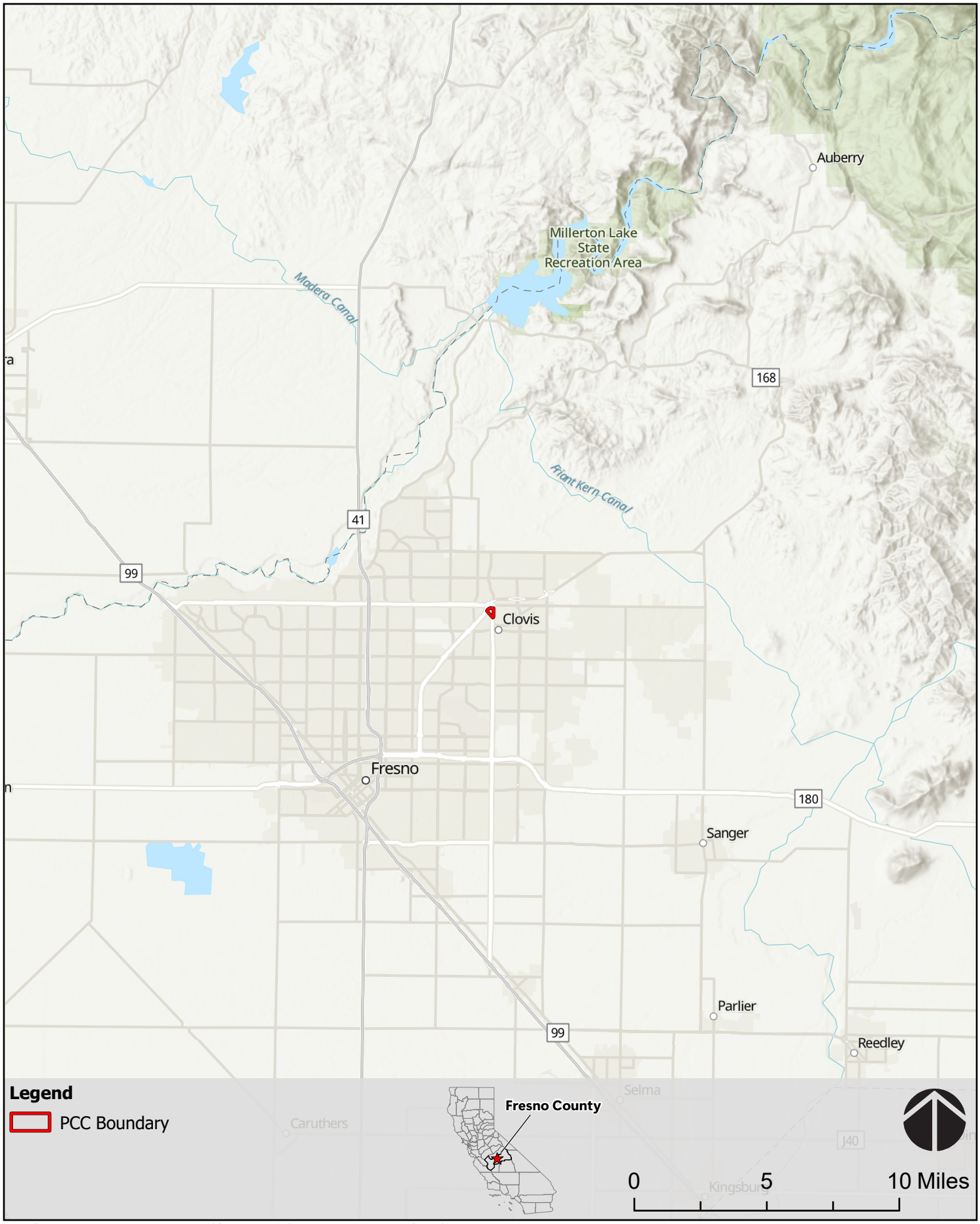
San Joaquin Valley Air Pollution Control District (SJVAPCD) Guidance to Conduct Detailed Analysis for Assessing Odor Impacts to Sensitive Receptors, August 1, 2016

FirstCarbon Solutions DRAFT Shadelands SecureSpace/Calicraft Project Initial Study/Mitigated Negative Declaration City of Walnut Creek, Contra Costa County, California, February 14, 2023

APPENDICES

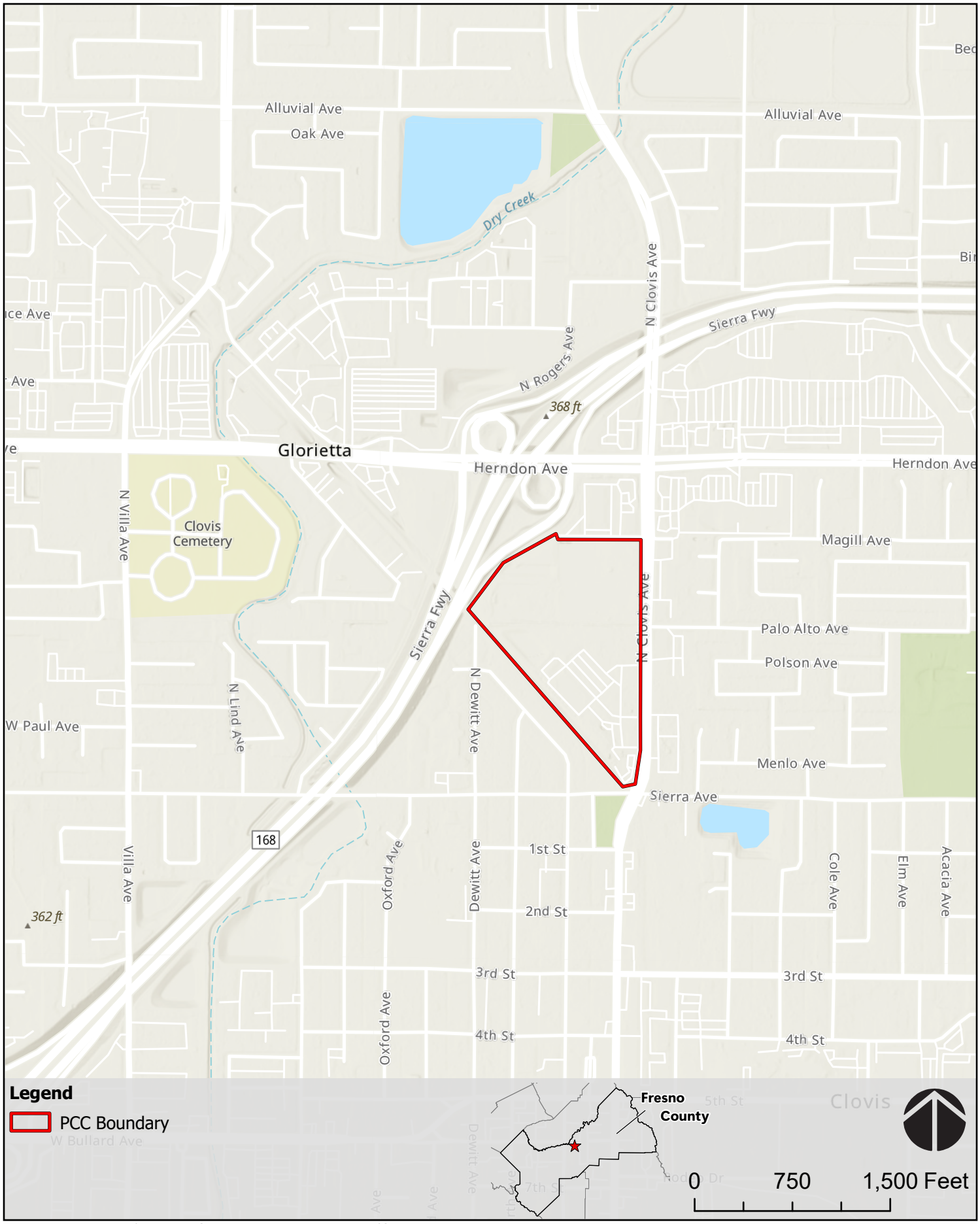
APPENDIX A
Figures



City Of Fresno, Fresno County Dept. PWP, California State Parks, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, Esri, NASA, NGA, USGS

FIGURE 1

REGIONAL LOCATION

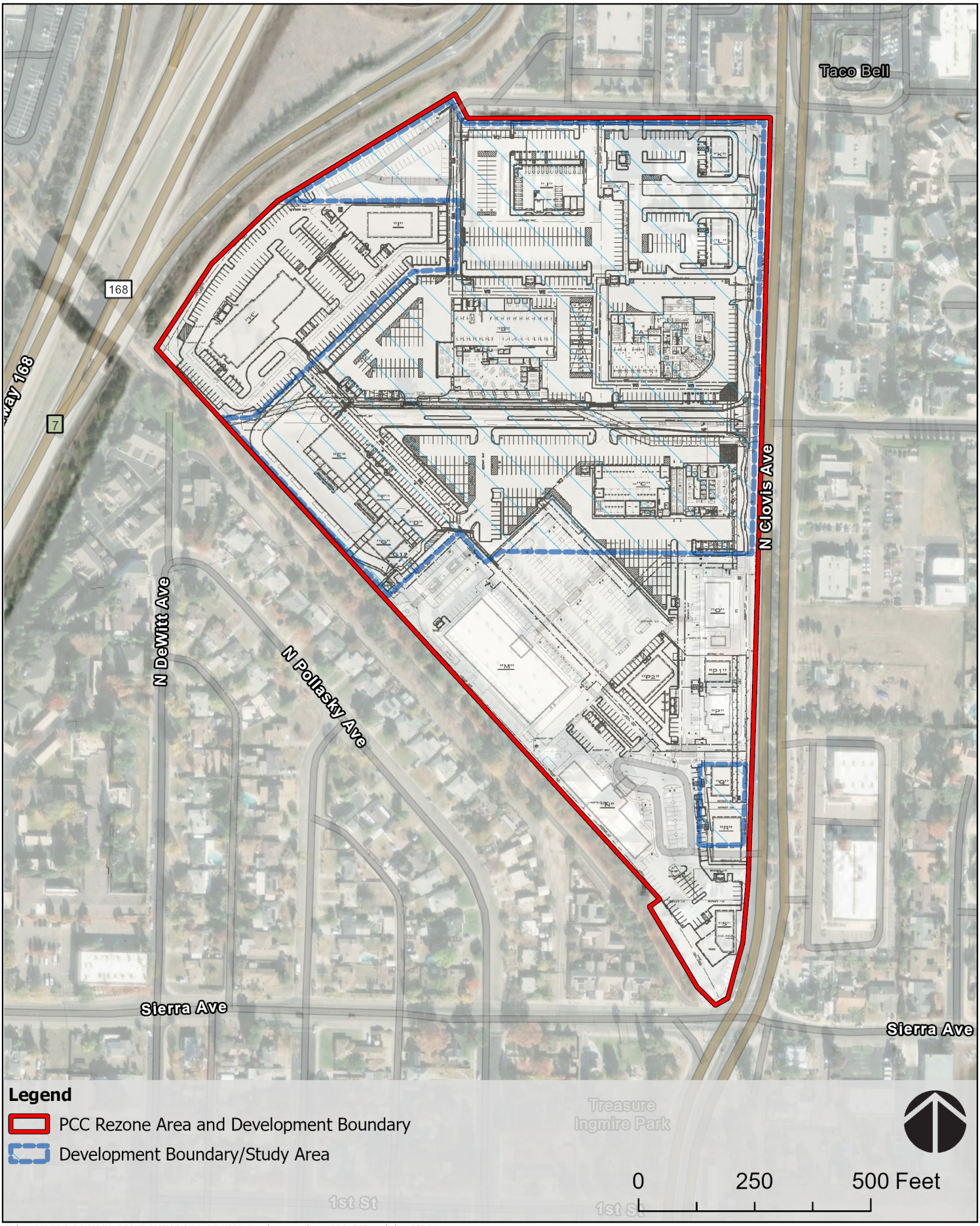


Esri Community Maps Contributors, City Of Fresno, Fresno County Dept. PWP, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land

FIGURE 2
SITE AND VICINITY

Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community, Maxar

FIGURE 3
AERIAL OVERVIEW



Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community, Maxar, Esri Community Maps Contributors, City Of Fresno, Fresno County Dept. PWP,

FIGURE 4
SITE PLAN

APPENDIX B

CalEEMod Output Files

Golden Triangle Planned Commercial Center Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Golden Triangle Planned Commercial Center
Construction Start Date	10/1/2026
Operational Year	2028
Lead Agency	City of Clovis
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	21.4
Location	36.83426442288318, -119.70216172030855
County	Fresno
City	Clovis
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2437
EDFZ	5
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.23

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

General Office Building	15.0	1000sqft	0.34	15,000	375	0.00	—	—
Fast Food Restaurant with Drive Thru	3.88	1000sqft	1.07	3,880	100	0.00	—	—
Fast Food Restaurant with Drive Thru	3.88	1000sqft	1.08	3,880	100	0.00	—	—
Automobile Care Center	139	1000sqft	14.6	139,020	1,000	0.00	—	Automobile Care Center used as proxy for Dealership/Repair Shop
Research & Development	3.00	1000sqft	0.50	3,000	75.0	0.00	—	Research & Development used as proxy for Wine Tasting and Brewing Tap room.
Research & Development	10.8	1000sqft	1.50	10,760	275	0.00	—	Research & Development used as proxy for Wine Tasting and Brewing Tap room.
Strip Mall	13.3	1000sqft	0.31	13,330	350	0.00	—	—
Quality Restaurant	4.93	1000sqft	0.64	4,930	125	0.00	—	Quality Restaurant used as proxy for Banquet.

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.	1.51	1.29	10.1	15.2	0.03	0.34	0.45	0.79	0.32	0.11	0.43	—	3,166	3,166	0.12	0.09	2.02	3,199
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.81	45.1	29.2	29.3	0.06	1.24	7.76	9.00	1.14	3.96	5.11	—	6,704	6,704	0.27	0.10	0.05	6,728
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.96	3.28	6.64	9.68	0.02	0.23	0.59	0.78	0.21	0.25	0.42	—	2,007	2,007	0.08	0.06	0.54	2,026
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.18	0.60	1.21	1.77	< 0.005	0.04	0.11	0.14	0.04	0.05	0.08	—	332	332	0.01	0.01	0.09	335
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	Yes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	Yes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	10.0	10.0	100	27.0	—	—	15.0	—	—	15.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.51	1.29	10.1	15.2	0.03	0.34	0.45	0.79	0.32	0.11	0.43	—	3,166	3,166	0.12	0.09	2.02	3,199
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.81	3.21	29.2	29.3	0.06	1.24	7.76	9.00	1.14	3.96	5.11	—	6,704	6,704	0.27	0.10	0.03	6,728
2027	3.57	45.1	25.6	27.8	0.06	1.04	3.70	4.74	0.96	1.45	2.41	—	6,701	6,701	0.27	0.09	0.05	6,726
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.61	0.51	4.52	4.52	0.01	0.19	0.59	0.78	0.17	0.25	0.42	—	994	994	0.04	0.01	0.05	999
2027	0.96	3.28	6.64	9.68	0.02	0.23	0.29	0.52	0.21	0.07	0.28	—	2,007	2,007	0.08	0.06	0.54	2,026
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.11	0.09	0.83	0.82	< 0.005	0.03	0.11	0.14	0.03	0.05	0.08	—	165	165	0.01	< 0.005	0.01	165
2027	0.18	0.60	1.21	1.77	< 0.005	0.04	0.05	0.09	0.04	0.01	0.05	—	332	332	0.01	0.01	0.09	335

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.	54.5	55.8	39.0	318	0.74	0.73	61.7	62.4	0.69	15.6	16.3	405	79,048	79,453	44.4	3.93	230	81,963
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	47.6	48.8	43.9	278	0.68	0.72	61.7	62.4	0.68	15.6	16.3	405	72,909	73,314	44.9	4.20	26.0	75,715
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	31.2	33.8	23.5	152	0.34	0.45	28.5	29.0	0.43	7.23	7.66	405	37,978	38,383	43.2	2.20	62.9	40,182
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.70	6.18	4.30	27.8	0.06	0.08	5.20	5.29	0.08	1.32	1.40	67.0	6,288	6,355	7.15	0.36	10.4	6,653
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	10.0	10.0	100	27.0	—	—	15.0	—	—	15.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

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	52.8	49.9	36.6	307	0.73	0.54	61.7	62.2	0.51	15.6	16.1	—	74,515	74,515	3.24	3.76	210	75,926
Area	1.50	5.78	0.07	8.43	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.7	34.7	< 0.005	< 0.005	—	34.8
Energy	0.25	0.13	2.30	1.93	0.01	0.17	—	0.17	0.17	—	0.17	—	4,438	4,438	0.52	0.04	—	4,462
Water	—	—	—	—	—	—	—	—	—	—	—	52.4	60.3	113	5.38	0.13	—	286
Waste	—	—	—	—	—	—	—	—	—	—	—	352	0.00	352	35.2	0.00	—	1,233
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20.5	20.5
Total	54.5	55.8	39.0	318	0.74	0.73	61.7	62.4	0.69	15.6	16.3	405	79,048	79,453	44.4	3.93	230	81,963
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	47.4	44.3	41.6	277	0.67	0.54	61.7	62.2	0.51	15.6	16.1	—	68,411	68,411	3.82	4.03	5.43	69,713
Area	—	4.39	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.25	0.13	2.30	1.93	0.01	0.17	—	0.17	0.17	—	0.17	—	4,438	4,438	0.52	0.04	—	4,462
Water	—	—	—	—	—	—	—	—	—	—	—	52.4	60.3	113	5.38	0.13	—	286
Waste	—	—	—	—	—	—	—	—	—	—	—	352	0.00	352	35.2	0.00	—	1,233
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20.5	20.5
Total	47.6	48.8	43.9	278	0.68	0.72	61.7	62.4	0.68	15.6	16.3	405	72,909	73,314	44.9	4.20	26.0	75,715
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	30.2	28.6	21.2	146	0.33	0.27	28.5	28.8	0.25	7.23	7.48	—	33,463	33,463	2.07	2.03	42.4	34,163
Area	0.74	5.08	0.03	4.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	17.1	17.1	< 0.005	< 0.005	—	17.2
Energy	0.25	0.13	2.30	1.93	0.01	0.17	—	0.17	0.17	—	0.17	—	4,438	4,438	0.52	0.04	—	4,462
Water	—	—	—	—	—	—	—	—	—	—	—	52.4	60.3	113	5.38	0.13	—	286
Waste	—	—	—	—	—	—	—	—	—	—	—	352	0.00	352	35.2	0.00	—	1,233
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20.5	20.5
Total	31.2	33.8	23.5	152	0.34	0.45	28.5	29.0	0.43	7.23	7.66	405	37,978	38,383	43.2	2.20	62.9	40,182
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.52	5.23	3.87	26.7	0.06	0.05	5.20	5.25	0.05	1.32	1.37	—	5,540	5,540	0.34	0.34	7.02	5,656
Area	0.14	0.93	0.01	0.76	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.83	2.83	< 0.005	< 0.005	—	2.84
Energy	0.05	0.02	0.42	0.35	< 0.005	0.03	—	0.03	0.03	—	0.03	—	735	735	0.09	0.01	—	739
Water	—	—	—	—	—	—	—	—	—	—	—	8.68	9.98	18.7	0.89	0.02	—	47.3
Waste	—	—	—	—	—	—	—	—	—	—	—	58.3	0.00	58.3	5.83	0.00	—	204
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.40	3.40
Total	5.70	6.18	4.30	27.8	0.06	0.08	5.20	5.29	0.08	1.32	1.40	67.0	6,288	6,355	7.15	0.36	10.4	6,653

3. Construction Emissions Details

3.1. Demolition (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	2.72	2.29	20.7	19.0	0.03	0.84	—	0.84	0.78	—	0.78	—	3,427	3,427	0.14	0.03	—	3,438
Demolition	—	—	—	—	—	—	0.35	0.35	—	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.13	1.04	< 0.005	0.05	—	0.05	0.04	—	0.04	—	188	188	0.01	< 0.005	—	188
Demolition	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.21	0.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	31.1	31.1	< 0.005	< 0.005	—	31.2
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.42	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	79.1	79.1	< 0.005	< 0.005	0.01	80.3
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	0.02	0.01	0.55	0.13	< 0.005	0.01	0.12	0.13	0.01	0.03	0.04	—	435	435	0.01	0.07	0.03	456
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	—	4.49	4.49	< 0.005	< 0.005	0.01	4.56
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	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	23.8	23.8	< 0.005	< 0.005	0.02	25.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.74	0.74	< 0.005	< 0.005	< 0.005	0.76
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	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.95	3.95	< 0.005	< 0.005	< 0.005	4.14

3.3. 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	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
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	—	—	—	—	—	—	0.21	0.21	—	0.11	0.11	—	—	—	—	—	—	—
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	—	—	—	—	—	—	0.04	0.04	—	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.04	0.48	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	92.2	92.2	< 0.005	< 0.005	0.01	93.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.62	2.62	< 0.005	< 0.005	< 0.005	2.66
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

3.5. 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	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34	0.29	2.56	2.59	0.01	0.11	—	0.11	0.10	—	0.10	—	620	620	0.03	0.01	—	622

Dust From Material Movement	—	—	—	—	—	—	0.34	0.34	—	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	0.06	0.05	0.47	0.47	< 0.005	0.02	—	0.02	0.02	—	0.02	—	103	103	< 0.005	< 0.005	—	103
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.05	0.55	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	105	105	< 0.005	0.01	0.01	107
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	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.3	10.3	< 0.005	< 0.005	0.02	10.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	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	—	1.70	1.70	< 0.005	< 0.005	< 0.005	1.73
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

3.7. Grading (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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.51	2.95	25.6	27.3	0.06	1.04	—	1.04	0.96	—	0.96	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.10	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	25.8	25.8	< 0.005	< 0.005	—	25.9
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.28	4.28	< 0.005	< 0.005	—	4.29

Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.51	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	103	103	< 0.005	0.01	0.01	105
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.42	0.42	< 0.005	< 0.005	< 0.005	0.43
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	0.07
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

3.9. 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 Equipment	0.74	0.62	5.63	7.76	0.01	0.20	—	0.20	0.19	—	0.19	—	1,438	1,438	0.06	0.01	—	1,443
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	0.13	0.11	1.03	1.42	< 0.005	0.04	—	0.04	0.03	—	0.03	—	238	238	0.01	< 0.005	—	239
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	0.24	0.24	0.12	2.00	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	368	368	0.01	0.01	1.18	374
Vendor	0.03	0.02	0.63	0.28	< 0.005	0.01	0.11	0.11	0.01	0.03	0.04	—	401	401	0.01	0.06	0.84	420
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	0.22	0.20	0.15	1.63	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	327	327	0.01	0.02	0.03	332
Vendor	0.03	0.02	0.67	0.29	< 0.005	0.01	0.11	0.11	0.01	0.03	0.04	—	402	402	0.01	0.06	0.02	420
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	0.13	0.13	0.08	0.99	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	203	203	0.01	0.01	0.31	206
Vendor	0.02	0.01	0.39	0.17	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	241	241	0.01	0.04	0.22	252
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	0.02	0.02	0.01	0.18	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	33.6	33.6	< 0.005	< 0.005	0.05	34.2
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	39.9	39.9	< 0.005	0.01	0.04	41.7
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

3.11. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (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	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	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	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.39	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	77.4	77.4	< 0.005	< 0.005	0.01	78.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	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	—	4.39	4.39	< 0.005	< 0.005	0.01	4.47
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	—	0.73	0.73	< 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

3.13. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (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	—	44.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	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	—	2.46	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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

Architect Coatings	—	0.45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.04	0.04	0.03	0.33	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	65.3	65.3	< 0.005	< 0.005	0.01	66.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	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	—	3.71	3.71	< 0.005	< 0.005	0.01	3.77
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	—	0.61	0.61	< 0.005	< 0.005	< 0.005	0.62
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.57	0.54	0.39	3.30	0.01	0.01	0.66	0.67	0.01	0.17	0.17	—	800	800	0.03	0.04	2.25	815
Fast Food Restaurant with Drive Thru	16.6	15.8	11.5	97.0	0.23	0.17	19.5	19.6	0.16	4.93	5.09	—	23,515	23,515	1.02	1.19	66.1	23,960
Automobile Care Center	25.3	23.9	17.5	147	0.35	0.26	29.6	29.8	0.24	7.50	7.74	—	35,718	35,718	1.55	1.80	100	36,395
Research & Development	6.72	6.35	4.66	39.1	0.09	0.07	7.85	7.92	0.06	1.99	2.05	—	9,484	9,484	0.41	0.48	26.7	9,664
Strip Mall	2.53	2.39	1.75	14.7	0.03	0.03	2.95	2.98	0.02	0.75	0.77	—	3,570	3,570	0.16	0.18	10.0	3,637
Quality Restaurant	1.01	0.96	0.70	5.89	0.01	0.01	1.18	1.19	0.01	0.30	0.31	—	1,428	1,428	0.06	0.07	4.01	1,455
Total	52.8	49.9	36.6	307	0.73	0.54	61.7	62.2	0.51	15.6	16.1	—	74,515	74,515	3.24	3.76	210	75,926
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.51	0.48	0.45	2.97	0.01	0.01	0.66	0.67	0.01	0.17	0.17	—	734	734	0.04	0.04	0.06	748
Fast Food Restaurant with Drive Thru	14.9	14.0	13.1	87.3	0.21	0.17	19.5	19.6	0.16	4.93	5.09	—	21,588	21,588	1.21	1.27	1.71	21,999

Automob Care Center	22.7	21.2	19.9	133	0.32	0.26	29.6	29.8	0.24	7.50	7.74	—	32,793	32,793	1.83	1.93	2.60	33,417
Researc h & Development	6.03	5.63	5.30	35.2	0.09	0.07	7.85	7.92	0.06	1.99	2.05	—	8,707	8,707	0.49	0.51	0.69	8,873
Strip Mall	2.27	2.12	1.99	13.2	0.03	0.03	2.95	2.98	0.02	0.75	0.77	—	3,277	3,277	0.18	0.19	0.26	3,340
Quality Restaurant	0.91	0.85	0.80	5.30	0.01	0.01	1.18	1.19	0.01	0.30	0.31	—	1,311	1,311	0.07	0.08	0.10	1,336
Total	47.4	44.3	41.6	277	0.67	0.54	61.7	62.2	0.51	15.6	16.1	—	68,411	68,411	3.82	4.03	5.43	69,713
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.07	0.07	0.06	0.40	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.02	—	93.8	93.8	< 0.005	0.01	0.12	95.6
Fast Food Restaurant with Drive Thru	2.03	1.93	1.30	8.93	0.02	0.02	1.56	1.58	0.01	0.40	0.41	—	1,688	1,688	0.12	0.11	2.11	1,726
Automob ile Care Center	2.33	2.21	1.65	11.4	0.03	0.02	2.25	2.27	0.02	0.57	0.59	—	2,388	2,388	0.15	0.14	3.03	2,438
Researc h & Development	0.57	0.54	0.47	3.25	0.01	0.01	0.73	0.73	0.01	0.18	0.19	—	759	759	0.04	0.04	0.98	774
Strip Mall	0.37	0.35	0.30	2.09	0.01	< 0.005	0.47	0.47	< 0.005	0.12	0.12	—	488	488	0.02	0.03	0.63	498
Quality Restaurant	0.14	0.14	0.09	0.64	< 0.005	< 0.005	0.11	0.11	< 0.005	0.03	0.03	—	122	122	0.01	0.01	0.15	125
Total	5.52	5.23	3.87	26.7	0.06	0.05	5.20	5.25	0.05	1.32	1.37	—	5,540	5,540	0.34	0.34	7.02	5,656

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	197	197	0.03	< 0.005	—	198
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	194	194	0.03	< 0.005	—	196
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	922	922	0.15	0.02	—	931
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	180	180	0.03	< 0.005	—	182
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	78.7	78.7	0.01	< 0.005	—	79.4
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	—	123	123	0.02	< 0.005	—	124
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,694	1,694	0.27	0.03	—	1,711
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	197	197	0.03	< 0.005	—	198

Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	194	194	0.03	< 0.005	—	196
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	922	922	0.15	0.02	—	931
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	180	180	0.03	< 0.005	—	182
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	78.7	78.7	0.01	< 0.005	—	79.4
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	—	123	123	0.02	< 0.005	—	124
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,694	1,694	0.27	0.03	—	1,711
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	32.5	32.5	0.01	< 0.005	—	32.9
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	32.1	32.1	0.01	< 0.005	—	32.4
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	153	153	0.02	< 0.005	—	154
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	29.9	29.9	< 0.005	< 0.005	—	30.1
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	13.0	13.0	< 0.005	< 0.005	—	13.2

Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	—	20.4	20.4	< 0.005	< 0.005	—	20.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	280	280	0.05	0.01	—	283

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.02	0.01	0.16	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	192	192	0.02	< 0.005	—	193
Fast Food Restaurant with Drive Thru	0.03	0.01	0.26	0.22	< 0.005	0.02	—	0.02	0.02	—	0.02	—	311	311	0.03	< 0.005	—	312
Automobile Care Center	0.17	0.08	1.53	1.29	0.01	0.12	—	0.12	0.12	—	0.12	—	1,825	1,825	0.16	< 0.005	—	1,831
Research & Development	0.02	0.01	0.15	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	176	176	0.02	< 0.005	—	177
Strip Mall	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	41.8	41.8	< 0.005	< 0.005	—	41.9
Quality Restaurant	0.02	0.01	0.17	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	198	198	0.02	< 0.005	—	198
Total	0.25	0.13	2.30	1.93	0.01	0.17	—	0.17	0.17	—	0.17	—	2,744	2,744	0.24	0.01	—	2,752
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Office Building	0.02	0.01	0.16	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	192	192	0.02	< 0.005	—	193
Fast Food Restaurant with Drive Thru	0.03	0.01	0.26	0.22	< 0.005	0.02	—	0.02	0.02	—	0.02	—	311	311	0.03	< 0.005	—	312
Automobile Care Center	0.17	0.08	1.53	1.29	0.01	0.12	—	0.12	0.12	—	0.12	—	1,825	1,825	0.16	< 0.005	—	1,831
Research & Development	0.02	0.01	0.15	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	176	176	0.02	< 0.005	—	177
Strip Mall	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	41.8	41.8	< 0.005	< 0.005	—	41.9
Quality Restaurant	0.02	0.01	0.17	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	198	198	0.02	< 0.005	—	198
Total	0.25	0.13	2.30	1.93	0.01	0.17	—	0.17	0.17	—	0.17	—	2,744	2,744	0.24	0.01	—	2,752
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.8	31.8	< 0.005	< 0.005	—	31.9
Fast Food Restaurant with Drive Thru	0.01	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	51.5	51.5	< 0.005	< 0.005	—	51.6
Automobile Care Center	0.03	0.02	0.28	0.23	< 0.005	0.02	—	0.02	0.02	—	0.02	—	302	302	0.03	< 0.005	—	303
Research & Development	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	29.2	29.2	< 0.005	< 0.005	—	29.2

Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.93	6.93	< 0.005	< 0.005	—	6.95
Quality Restaurant	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	32.7	32.7	< 0.005	< 0.005	—	32.8
Total	0.05	0.02	0.42	0.35	< 0.005	0.03	—	0.03	0.03	—	0.03	—	454	454	0.04	< 0.005	—	456

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	—	4.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.50	1.38	0.07	8.43	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.7	34.7	< 0.005	< 0.005	—	34.8
Total	1.50	5.78	0.07	8.43	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.7	34.7	< 0.005	< 0.005	—	34.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	4.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	4.39	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.76	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.14	0.12	0.01	0.76	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.83	2.83	< 0.005	< 0.005	—	2.84
Total	0.14	0.93	0.01	0.76	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.83	2.83	< 0.005	< 0.005	—	2.84

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	5.11	5.88	11.0	0.52	0.01	—	27.8
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	4.51	5.19	9.70	0.46	0.01	—	24.6
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	25.1	28.8	53.9	2.57	0.06	—	137

Research & Development	—	—	—	—	—	—	—	—	—	—	—	13.0	14.9	27.9	1.33	0.03	—	70.7
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.89	2.18	4.07	0.19	< 0.005	—	10.3
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	2.87	3.30	6.16	0.29	0.01	—	15.6
Total	—	—	—	—	—	—	—	—	—	—	—	52.4	60.3	113	5.38	0.13	—	286
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	5.11	5.88	11.0	0.52	0.01	—	27.8
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	4.51	5.19	9.70	0.46	0.01	—	24.6
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	25.1	28.8	53.9	2.57	0.06	—	137
Research & Development	—	—	—	—	—	—	—	—	—	—	—	13.0	14.9	27.9	1.33	0.03	—	70.7
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.89	2.18	4.07	0.19	< 0.005	—	10.3
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	2.87	3.30	6.16	0.29	0.01	—	15.6
Total	—	—	—	—	—	—	—	—	—	—	—	52.4	60.3	113	5.38	0.13	—	286
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.85	0.97	1.82	0.09	< 0.005	—	4.61

Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	0.75	0.86	1.61	0.08	< 0.005	—	4.07
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	4.15	4.77	8.92	0.43	0.01	—	22.6
Research & Development	—	—	—	—	—	—	—	—	—	—	—	2.15	2.47	4.61	0.22	0.01	—	11.7
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.31	0.36	0.67	0.03	< 0.005	—	1.71
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	0.47	0.55	1.02	0.05	< 0.005	—	2.59
Total	—	—	—	—	—	—	—	—	—	—	—	8.68	9.98	18.7	0.89	0.02	—	47.3

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	7.52	0.00	7.52	0.75	0.00	—	26.3
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	48.2	0.00	48.2	4.81	0.00	—	169

Automob Care Center	—	—	—	—	—	—	—	—	—	—	—	286	0.00	286	28.6	0.00	—	1,001
Researc h & Development	—	—	—	—	—	—	—	—	—	—	—	0.56	0.00	0.56	0.06	0.00	—	1.97
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	7.54	0.00	7.54	0.75	0.00	—	26.4
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	2.42	0.00	2.42	0.24	0.00	—	8.48
Total	—	—	—	—	—	—	—	—	—	—	—	352	0.00	352	35.2	0.00	—	1,233
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	7.52	0.00	7.52	0.75	0.00	—	26.3
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	48.2	0.00	48.2	4.81	0.00	—	169
Automob ile Care Center	—	—	—	—	—	—	—	—	—	—	—	286	0.00	286	28.6	0.00	—	1,001
Researc h & Development	—	—	—	—	—	—	—	—	—	—	—	0.56	0.00	0.56	0.06	0.00	—	1.97
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	7.54	0.00	7.54	0.75	0.00	—	26.4
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	2.42	0.00	2.42	0.24	0.00	—	8.48
Total	—	—	—	—	—	—	—	—	—	—	—	352	0.00	352	35.2	0.00	—	1,233
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.24	0.00	1.24	0.12	0.00	—	4.35
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	7.98	0.00	7.98	0.80	0.00	—	27.9
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	47.4	0.00	47.4	4.74	0.00	—	166
Research & Development	—	—	—	—	—	—	—	—	—	—	—	0.09	0.00	0.09	0.01	0.00	—	0.33
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.25	0.00	1.25	0.12	0.00	—	4.37
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	0.40	0.00	0.40	0.04	0.00	—	1.40
Total	—	—	—	—	—	—	—	—	—	—	—	58.3	0.00	58.3	5.83	0.00	—	204

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04

Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.1	12.1
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.22	0.22
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.71	7.71
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20.5	20.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.1	12.1
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.22	0.22
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35

Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.71	7.71
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20.5	20.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.01	2.01
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06	0.06
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.28	1.28
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.40	3.40

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

Demolition	Demolition	10/1/2026	10/29/2026	5.00	20.0	—
Site Preparation	Site Preparation	10/30/2026	11/13/2026	5.00	10.0	—
Grading	Grading	11/14/2026	1/2/2027	5.00	35.0	—
Building Construction	Building Construction	1/3/2027	11/4/2027	5.00	219	—
Paving	Paving	11/5/2027	12/2/2027	5.00	20.0	—
Architectural Coating	Architectural Coating	12/3/2027	12/30/2027	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
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
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	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
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	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37

Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
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
Demolition	—	—	—	—
Demolition	Worker	15.0	7.70	LDA,LDT1,LDT2
Demolition	Vendor	—	4.00	HHDT,MHDT
Demolition	Hauling	6.35	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	7.70	LDA,LDT1,LDT2
Site Preparation	Vendor	—	4.00	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	—	4.00	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	63.3	7.70	LDA,LDT1,LDT2

Building Construction	Vendor	31.8	4.00	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	—	4.00	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	12.7	7.70	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	4.00	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	290,700	96,900	—

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 (Building Square Footage)	Acres Paved (acres)

Demolition	0.00	0.00	0.00	11,000	—
Site Preparation	0.00	0.00	15.0	0.00	—
Grading	0.00	0.00	105	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Office Building	0.00	0%
Fast Food Restaurant with Drive Thru	0.00	0%
Fast Food Restaurant with Drive Thru	0.00	0%
Automobile Care Center	0.00	0%
Research & Development	0.00	0%
Research & Development	0.00	0%
Strip Mall	0.00	0%
Quality Restaurant	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	204	0.03	< 0.005
2027	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
General Office Building	163	33.2	10.5	44,668	936	191	60.4	257,148
Fast Food Restaurant with Drive Thru	1,814	2,391	1,834	693,149	3,728	13,762	10,556	2,239,819
Fast Food Restaurant with Drive Thru	1,814	2,391	1,834	693,149	3,728	13,762	10,556	2,239,819
Automobile Care Center	3,870	7,262	3,021	1,545,248	12,880	41,809	17,391	6,444,835
Research & Development	138	610	615	99,862	794	3,514	3,542	574,893
Research & Development	664	1,313	387	261,683	3,821	7,559	2,226	1,506,467
Strip Mall	726	560	272	232,652	4,178	3,226	1,568	1,339,342
Quality Restaurant	270	290	232	97,674	647	1,671	1,336	325,430

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	290,700	96,900	—

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)
General Office Building	351,696	204	0.0330	0.0040	599,086
Fast Food Restaurant with Drive Thru	173,371	204	0.0330	0.0040	485,131
Fast Food Restaurant with Drive Thru	173,371	204	0.0330	0.0040	485,131
Automobile Care Center	1,649,352	204	0.0330	0.0040	5,695,972
Research & Development	70,339	204	0.0330	0.0040	119,817
Research & Development	252,283	204	0.0330	0.0040	429,745
Strip Mall	140,766	204	0.0330	0.0040	130,532
Quality Restaurant	220,288	204	0.0330	0.0040	616,416

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Office Building	2,666,006	5,148
Fast Food Restaurant with Drive Thru	1,177,711	1,373

Fast Food Restaurant with Drive Thru	1,177,711	1,373
Automobile Care Center	13,079,156	13,727
Research & Development	1,475,082	1,030
Research & Development	5,290,627	3,775
Strip Mall	987,387	4,805
Quality Restaurant	1,496,421	1,716

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Office Building	14.0	—
Fast Food Restaurant with Drive Thru	44.7	—
Fast Food Restaurant with Drive Thru	44.7	—
Automobile Care Center	531	—
Research & Development	0.23	—
Research & Development	0.82	—
Strip Mall	14.0	—
Quality Restaurant	4.50	—

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
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	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
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
Automobile Care Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Research & Development	Household refrigerators and/or freezers	R-134a	1,430	0.45	0.60	0.00	1.00
Research & Development	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Research & Development	Household refrigerators and/or freezers	R-134a	1,430	0.45	0.60	0.00	1.00
Research & Development	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Quality Restaurant	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Quality Restaurant	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0

Quality Restaurant	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
Characteristics: Project Details	The Project is in an urban area
Land Use	Acreage adjusted to be consistent with Project Site
Operations: Vehicle Data	Automobile Care Center used as proxy for Dealership/Repair Shop Research & Development used as proxy for Wine Tasting and Brewing Tap room. Quality Restaurant used as proxy for Banquet. Trip Rates Consistent with Traffic Study and ITE 11th Edition
Operations: Refrigerants	Automobile Care Center is a proxy for a Dealership
Construction: Construction Phases	Consistent w/ Project Representative Information

APPENDIX B

Biological Resources Assessment

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Technical Memorandum: Biological Resources Assessment for the Golden Triangle Development Project, Clovis, CA

February 23, 2024

Introduction

This Biological Resources Assessment technical memorandum has been prepared to address the effects of a proposed update to the Development Plan and Master Site Plan for the Golden Triangle Planned Commercial Center (PCC) (Proposed Project) in the City of Clovis (see **Figure 1**). The purpose of this analysis is to inventory biological resources within the project area, to identify potential biological resources constraints to development, to assess potential project-related impacts to biological resources, and to identify mitigation measures and other recommendations to reduce the significance of these impacts.

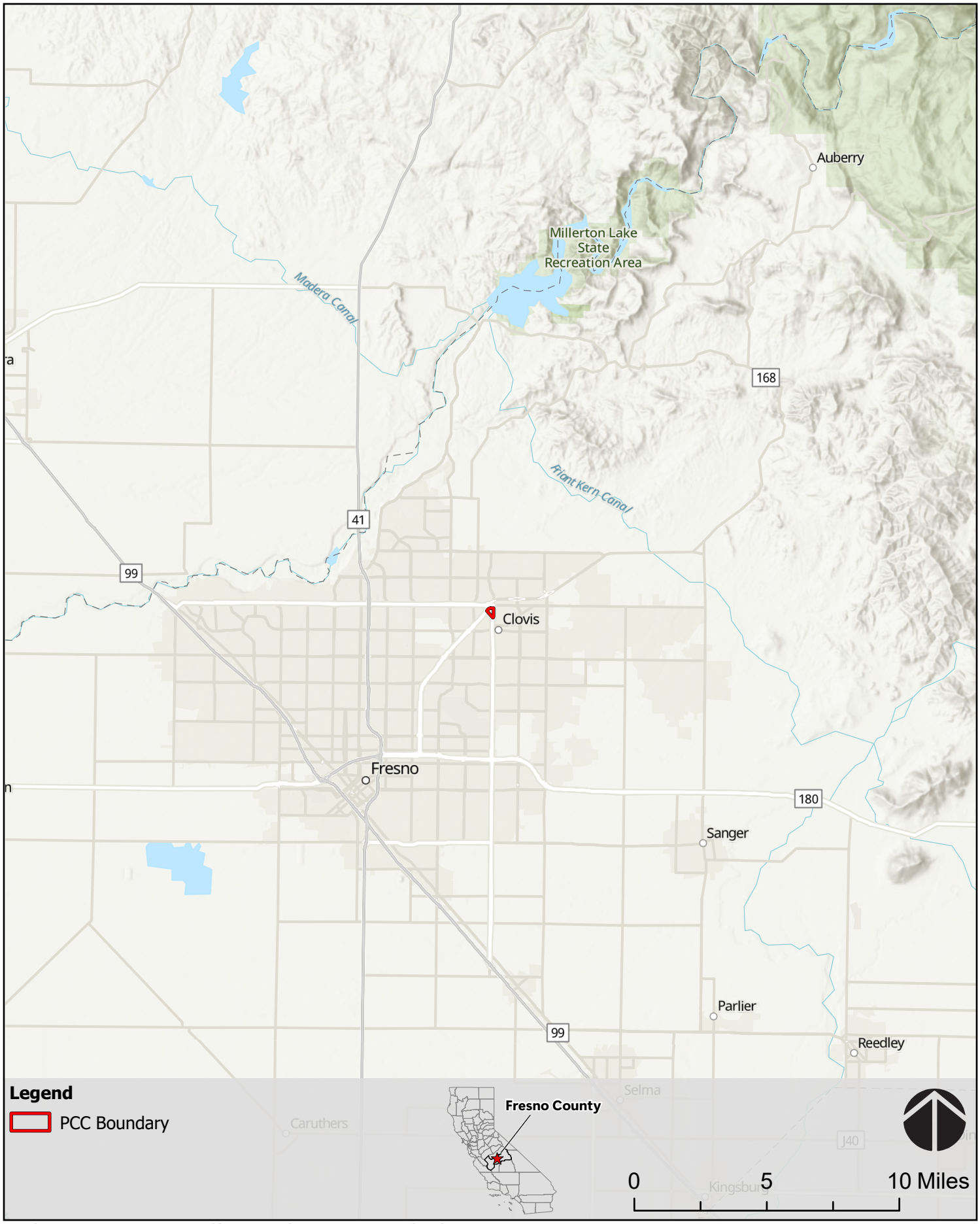
Study Area

The Golden Triangle PCC consists of approximately 37 acres located southwest of the Clovis Avenue and Magill Avenue intersection (PCC Boundary). The PCC Boundary is located in an urban infill location, and is bordered by Magill Avenue-State Route (SR) 168 to the north, the Clovis Old Town Trail to the south, and Clovis Avenue to the east (see **Figure 2**). The study area addressed in this memorandum is limited to the proposed commercial development area (roughly 20 acres) within the larger PCC Boundary (Study Area or Project Area) that is proposed for commercial development. The location of the Study Area relative to the PCC Boundary can be seen in **Figure 3**.

The Study Area is currently zoned Planned Commercial Center according to the City of Clovis 2014 General Plan. Approximately half of the PCC Boundary (15.6 acres) is already developed with commercial buildings, paved parking lots and driveways, graveled lots for storage of RVs and other vehicles, and three residences. The remaining area, including the Study Area, is undeveloped and has no major vegetation. The Study Area is relatively flat, with an on-site elevation of approximately 350 feet above mean sea level. The West Branch Clovis Ditch bisects the Study Area, and a stormwater detention basin occurs in the southwestern portion of the Study Area.

Project Overview

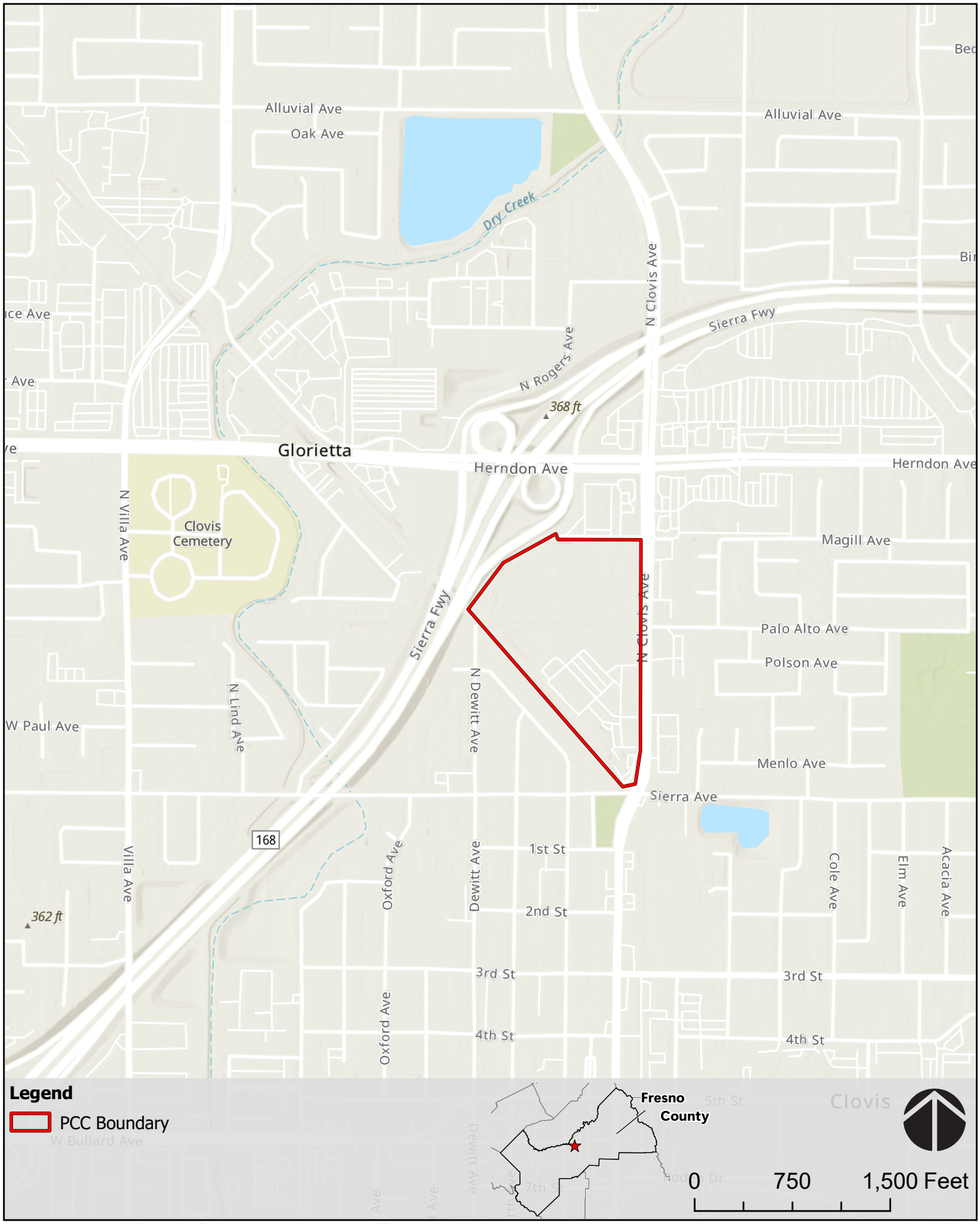
The Proposed Project includes development of retail, commercial, and office buildings, surface parking lots and ancillary infrastructure throughout the Study Area. Exterior lighting would be integrated into



City Of Fresno, Fresno County Dept. PWP, California State Parks, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, Esri, NASA, NGA, USGS

FIGURE 1

REGIONAL LOCATION



Esri Community Maps Contributors, City Of Fresno, Fresno County Dept. PWP, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land

FIGURE 2
SITE AND VICINITY

Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community, Maxar

FIGURE 3
AERIAL OVERVIEW

components of the architecture and would be strategically positioned to minimize off-site lighting and any direct sight lines to the public. New streetlights would be provided on the internal roadways and parking areas as appropriate to provide sufficient illumination of the streets for traffic and pedestrians to traverse them safely. New driveways may be constructed on adjacent roadways to provide access to the Project Area.

Given the relatively level topography of the Project Area, grading activities associated with the Proposed Project would be minor and are not anticipated to include the import of fill or export of cut. Drainage facilities would be designed and constructed to collect and route stormwater runoff from roads, sidewalks, roofs, and landscape areas to different water quality and/or flow control facilities prior to discharge into the on-site stormwater detention basin. The Proposed Project will include connections to existing utilities located within the Project Area or adjacent public right-of-way and developed areas.

Methods

Database Queries

Prior to conducting the field survey, the following information sources were reviewed:

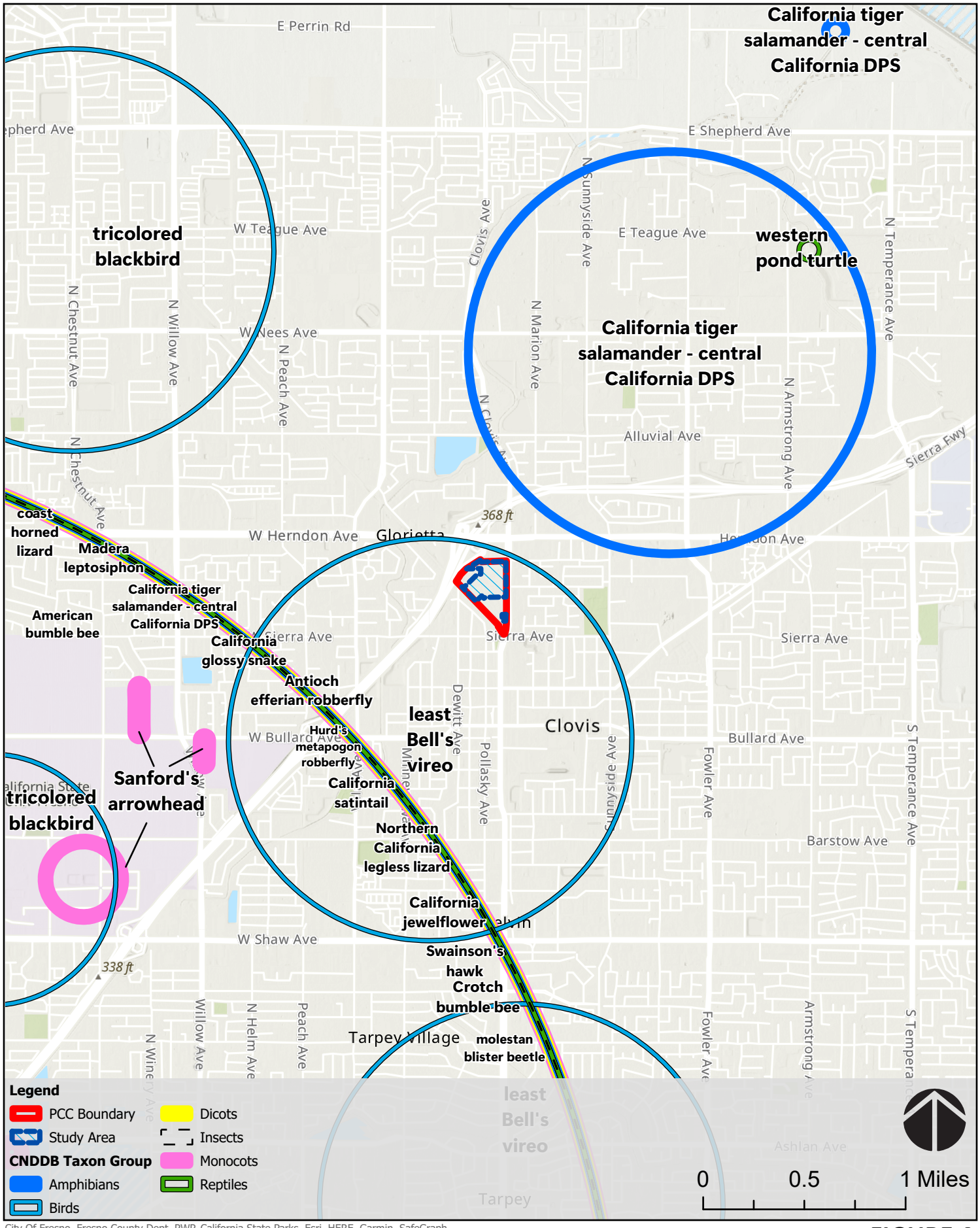
- U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation Species List (USFWS, 2023a; **Attachment A**);
- A spatial query of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database CNDDB using a nine quadrangle (quad) boundary, with "Clovis" as the central quad (CDFW, 2023a; **Figure 4**);
- A query of the California Native Plant Society's (CNPS) database Inventory of Rare and Endangered Plants of California using a nine quad boundary, with "Clovis" as the central quad (CNPS, 2023; **Attachment A**); and
- USFWS National Wetland Inventory (NWI) digital maps (USFWS, 2023b; **Attachment A**).

Biological Field Survey

Acorn senior biologist Dr. G.O. Graening conducted a biological survey of the PCC Boundary on October 3, 2023. Weather conditions were warm and overcast. Survey efforts covered the totality of the PCC Boundary and emphasized the search for special-status species and sensitive habitats or habitats suitable for supporting special-status species. Wildlife signs—tracks, feathers and shedding, burrows, scat, etc.—were interpreted to detect species not actually seen. All visible fauna and flora observed were recorded in a field notebook and identified to the lowest taxon possible.

Resources Mapping

Locations of species' occurrences and habitat boundaries within the PCC Boundary were recorded on color aerial photographs, and then digitized to produce habitat maps. Geographic analyses were performed using geographical information system software (ArcGIS 10, ESRI, Inc.). Vegetation communities were classified by Vegetation Series using the CNPS Vegetation Classification system (Sawyer and Keeler-Wolf, 1995, as updated in 2009) and considering CDFW's Natural Communities nomenclature system. Wetlands and other aquatic habitats were classified using USFWS National Wetlands Inventory Classification System for Wetland and Deepwater Habitats, or "Cowardin class" (USFWS 2013). Informal wetland delineation methods consisted of an abbreviated, visual assessment of the three requisite wetland parameters (hydrophytic vegetation, hydric soils, hydrologic regime) defined in the U.S. Army Corps of Engineers



City Of Fresno, Fresno County Dept. PWP, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, Esri,

FIGURE 4

CNDDB MAPPED SPECIES DATA

Wetlands Delineation Manual (Environmental Laboratory, 1987). Wildlife habitats were classified according to the CDFW's California Wildlife Habitat Relationships System (CDFW, 2023b). Species' habitat requirements and life histories were identified using the following sources: Baldwin et al. (2012); CNPS (2023), Calflora (2023); CDFW (2023a, b); and University of California at Berkeley (2023a, b).

Results

Environmental Setting

The Study Area is located in an urban infill location within the City of Clovis. The Study Area is relatively flat, with an on-site elevation of approximately 350 feet above mean sea level. A representative collection of site photographs is included as **Attachment B**.

Habitat Types

The Study Area does not contain Essential Fish Habitat and does not fall within designated or proposed Critical Habitat (NOAA, 2023; USFWS, 2023c). The nearest Critical Habitat in relation to the Study Area is designated for fleshy owl's-clover (*Castilleja campestris ssp. Succulenta*), approximately 3.3 miles northeast of the Study Area. The following habitat types were identified within the Study Area:

- Ruderal
- Developed
- Manmade drainage ditch (West Branch Clovis Ditch)
- Stormwater detention basin
- Marsh

A detailed discussion of each habitat type is provided below, and a figure showing the location of vegetation community types is included as **Figure 5**. An inventory of plant species identified during the survey is included as **Attachment C**. The USFWS NWI data reviewed prior to the survey is provided in **Attachment A** and shown in **Figure 6**. **Figure 7** shows surface water resources present on the Study Area based on the results of the survey.

Ruderal

Ruderal habitat includes those areas that are subject to ongoing or regular disturbance and are modified from their natural state. Ruderal areas comprise 13.6 acres of the Study Area and are kept in a ruderal state through ongoing disturbance such as disking. Vegetation within ruderal areas is dominated by non-native European herbs and grasses, primarily vinegar weed (*Trichostema sp*.), mustard (*Brassica*), and annual grasses (*Bromus* and *Avena spp*.). The Study Area perimeter, as well as parking lots, are landscaped with ornamentals such as rosemary (*Rosemarinus*), coast redwood (*Sequioa sempervirens*), purple leaf plum (*Prunus cerasifera*), Bradford pear (*Pyrus calleryana*), ash (*Fraxinus angustifolia*), and elm (*Ulmus pumila*). The smaller, southern Project Area is entirely ruderal habitat, and approximately half of the northern Project Area is also ruderal. A portion of the ruderal habitat occurs within a stormwater detention basin, which was dry at the time of the survey, and is discussed further below.

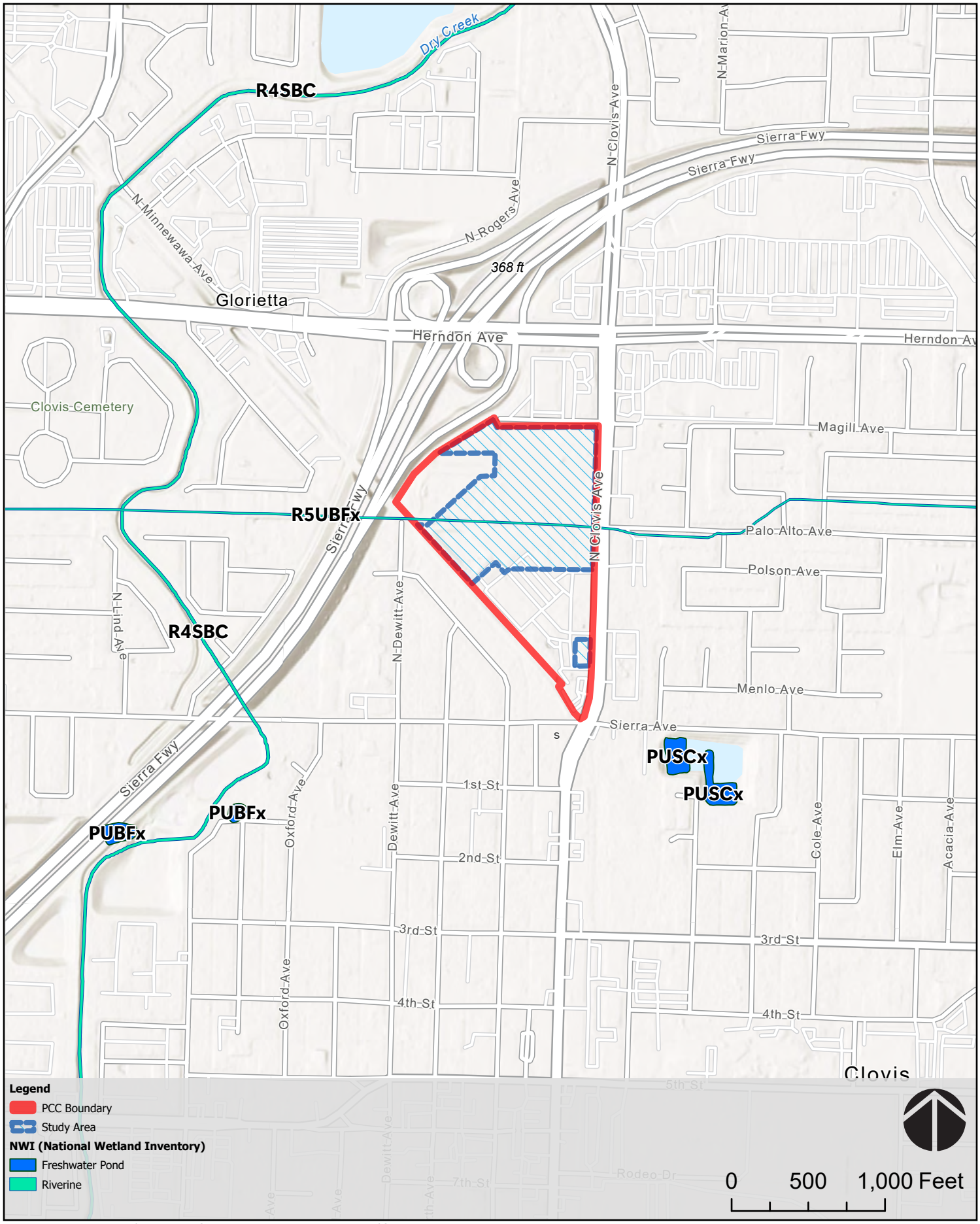
Developed

A total of 6.1 acres of the Study Area is developed with commercial buildings, paved parking lots and driveways, graveled lots for storage of RVs and other vehicles, and three residences. Developed areas are located within the larger, northern portion of the Project Area.

Maxar, Microsoft, Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community

FIGURE 5

VEGETATION COMMUNITY TYPES



Esri Community Maps Contributors, City Of Fresno, Fresno County Dept. PWP, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land

FIGURE 6

NATIONAL WETLAND INVENTORY

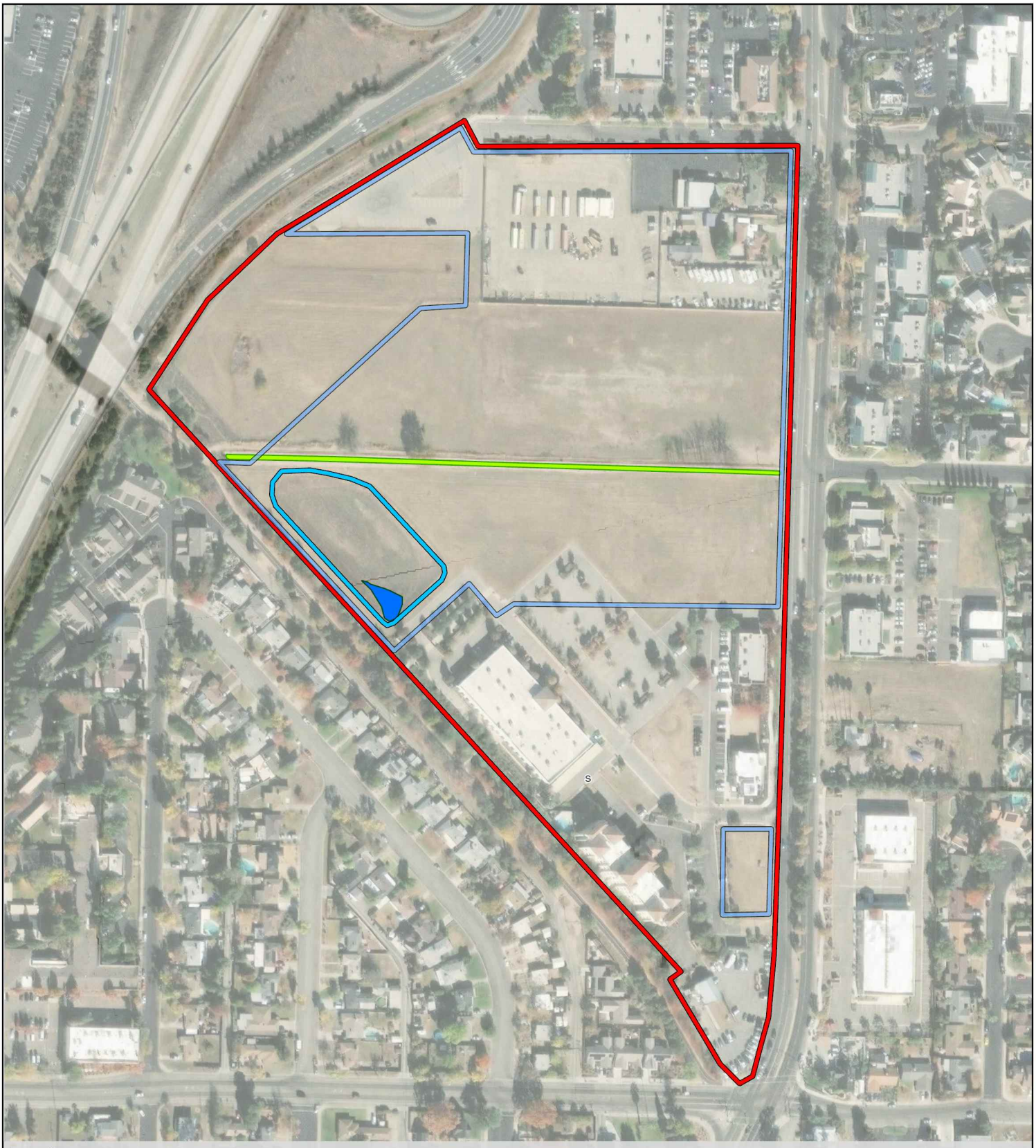


FIGURE 7
WATER RESOURCES

Surface Water Resources – West Branch Clovis Ditch

The NWI reported a single surface water resource within the Study Area. This feature is listed as "Riverine" habitat and bisects the larger Project Area in an east to west direction. This feature was identified in the field as a portion of the West Branch Clovis Ditch, which is a manmade drainage ditch. This feature is an earthen trapezoidal ditch that is approximately 12 feet wide at the top and 4 feet deep. The Ordinary High Water Mark is about 6 feet wide and 1 foot deep. The channel bottom is lined with hydrophytic vegetation, including tall flatsedge (*Cyperus eragrostis*), common rush (*Juncus effusus*), and cattail (*Typha*). The West Branch Clovis Ditch was dry at the time of the survey. The totality of the West Branch Clovis Ditch on site crosses the northern Project Area.

Surface Water Resources – Stormwater Detention Basin and Marsh

In addition to the West Branch Clovis Ditch, a stormwater detention basin occurs within the Study Area, within the southwestern area of the larger Project Area. The majority of this basin has upland vegetation (primarily European annual grasses) and does not fit the regulatory definition of a wetland. A small wetland, identified as a freshwater marsh, is located in the southwest corner of the basin and contains hydrophytic vegetation such as tall flatsedge (*Cyperus eragrostis*) and common rush (*Juncus effusus*).

Wildlife Corridors, Nursery Sites, and Other Habitat Features

The Study Area did not contain wildlife corridors, nursery sites or other unique habitat features. Wildlife access to the Study Area is limited due to surrounding residential and commercial development, fences, and major roadways.

Special-status Species

For the purposes of this assessment, "special status" is defined to be species that are of management concern to state or federal natural resource agencies, and include those species that are:

- Listed as endangered, threatened, proposed, or candidate for listing under the Federal Endangered Species Act;
- Listed as endangered, threatened, rare, or proposed for listing, under the California Endangered Species Act of 1970;
- Designated as endangered or rare, pursuant to California Fish and Game Code (§1901);
- Designated as fully protected, pursuant to California Fish and Game Code (§3511, §4700, or §5050);
- Designated as a species of special concern by CDFW;
- Plants considered to be rare, threatened or endangered by CNPS; this consists of species on Lists 1A, 1B, and 2 of the CNPS Ranking System; or
- Plants listed as rare under the California Native Plant Protection Act.

Special-status species with the potential to occur in the vicinity of the Study Area, based on the database queries and field survey, are presented in **Table 1**. **Table 1** identifies the species, status, a description of suitable habitat, and potential to occur within the Study Area. Where a species was determined to have no potential to occur, the determination was made based upon a lack of suitable habitat characteristics, such as lack of suitable soils or vegetative cover, or lack of suitable means to access the Study Area.

Table 1: Special-status Species with Potential to Occur in the Vicinity of the Study Area

Scientific Name	Common Name	Status*	General Habitat**	Microhabitat**	Potential to Occur in Study Area
ANIMALS					
Agelaius tricolor	tricolored blackbird	CT	Highly colonial species, most numerous in central valley & vicinity. Largely endemic to California	Requires open water, protected nesting substrate, & foraging area with insect prey within a few km of the colony	Absent: No habitat onsite
Ambystoma californiense pop. 1	California tiger salamander – central California DPS	FT, CT	Vernal pools, playas, ponds	Bodies of water must hold water for a minimum of 12 weeks to support the salamander larvae development. The salamanders also need access to upland habitat that contains small animal burrows or underground hideaways, including those constructed by California ground squirrel	Absent: No habitat onsite
Anniella pulchra	Northern California legless lizard	SSC	Rocks and moist soil	Requires vegetative cover for foraging with moist leaf litter and soil (CDFW, 2000)	Absent: No habitat onsite
Antrozous pallidus	pallid bat	SSC	Deserts, grasslands, shrublands, woodlands & forests. Most common in open, dry habitats with rocky areas for roosting	Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites	Absent: No habitat onsite
Arizona elegans occidentalis	California glossy snake	SSC	Grassy fields	Require small mammal burrows or grassland-adjacent rock outcrops for refuge, or, less commonly, suitably soft soil that they can burrow in themselves (CDFW, n.d.)	Absent: Study Area is outside of species range (CDFW, 2023c)
Athene cunicularia	burrowing owl	SSC	Open, dry annual or perennial grasslands, deserts & scrublands characterized by low-growing vegetation	Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel	Low potential to occur, both burrowing and foraging

Branchinecta conservatio	conservancy fairy shrimp	FT	Conservancy fairy shrimp are restricted to vernal pools found in California's Central Valley from Tehama County in the north to Merced County in the south. However, there is one outlying population in Ventura County's Interior Coast Ranges	Conservancy fairy shrimp have been found at elevations ranging from 16 to 5,577 feet (5 to 1,700 meters) above sea level. The species has been found at sites that are low in alkalinity that range from 16 to 47 parts per million	Absent: No habitat onsite
Branchinecta lynchi	vernal pool fairy shrimp	FT	Endemic to the grasslands of the central valley, central coast mtns, and south coast mtns, in astatic rain-filled pools	Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools	Absent: No habitat onsite
Buteo swainsoni	Swainson's hawk	CT	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands	Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations	Low potential to occur, foraging habitat only
Coccyzus americanus occidentalis	western yellow-billed cuckoo	FT, CE	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems	Nests in riparian jungles of willow, often mixed with cottonwoods, w/ lower story of blackberry, nettles, or wild grape	Absent: No habitat onsite
Danaus plexippus	monarch butterfly	FC	Milkweed and flowering plants are needed for monarch habitat. Adult monarchs feed on the nectar of many flowers during breeding and migration, but they can only lay eggs on milkweed plants	For overwintering monarchs, habitat with a specific microclimate is needed for protection from the elements, as well as moderate temperatures to avoid freezing	Absent: No habitat onsite
Desmocerus californicus dimorphus	valley elderberry longhorn beetle	FT	Occurs only in the central valley of California, in association with blue elderberry (*Sambucus mexicana*)	Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries	Absent: No habitat onsite
Dipodomys nitratoides exilis	Fresno kangaroo rat	FE, CE	Alkali sink-open grassland habitats in western Fresno County	Bare alkaline clay-based soils subject to seasonal inundation, with more friable soil mounds around shrubs & grasses	Absent: No habitat onsite
Emys marmorata	western pond turtle	SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams & irrigation ditches, usually with aquatic vegetation	Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying	Absent: No habitat onsite

Euderma maculatum	spotted bat	SSC	Occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests	Feeds over water and along washes. Feeds almost entirely on moths. Needs rock crevices in cliffs or caves for roosting	Absent: No habitat onsite
Eumops perotis californicus	western mastiff bat	SSC	Many open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, chaparral etc.	Roosts in crevices in cliff faces, high buildings, trees & tunnels	Absent: No habitat onsite
Gymnogyps californianus	California condor	FE, CE	Condors roost on large trees or snags, or on rocky outcrops and cliffs. Nests are located in caves and ledges of steep rocky terrain or in cavities and broken tops of old growth conifers created by fire or wind	Foraging habitat includes open grasslands, oak savanna foothills, and beaches adjacent to coastal mountains	Absent: No habitat onsite
Mylopharodon conocephalus	hardhead	SSC	Low to mid-elevation streams in the Sacramento San Joaquin drainage. Also present in the Russian river	Clear, deep pools with sand-gravel-boulder bottoms & slow water velocity. Not found where exotic centrarchids predominate	Absent: No habitat onsite
Phrynosoma blainvillii	coast horned lizard	SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes	Open areas for sunning, bushes for cover, patches of loose soil for burial, & abundant supply of ants & other insects	Absent: No habitat onsite
Spea hammondii	western spadefoot	SSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands	Vernal pools are essential for breeding and egg-laying	Absent: No habitat onsite
Taxidea taxus	American badger	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils	Needs sufficient food, friable soils & open, uncultivated ground. Preys on burrowing rodents. Digs burrows	Absent: No habitat onsite
Vireo bellii pusillus	least Bell's vireo	FE, CE	Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft.	Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, baccharis, mesquite	Absent: No habitat onsite
Vulpes macrotis mutica	San Joaquin kit fox	FE, CT	Annual grasslands or grassy open stages with scattered shrubby vegetation	Need loose-textured sandy soils for burrowing, and suitable prey base	Absent: No habitat onsite

PLANTS					
Calycadenia hooveri	Hoover's calycadenia	CNPS 1B.3	Cismontane woodland, valley and foothill grassland	On exposed, rocky, barren soil. 65-260m.	Absent: No habitat onsite
Carex comosa	bristly sedge	CNPS 2B.1	Marshes and swamps	Lake margins, wet places. -5-1,005m.	Absent: No habitat onsite (marsh on site small, degraded, and isolated)
Castilleja campestris var. succulenta	succulent owl's-clover	FT, CE	Vernal pools, valley and foothill grassland	Moist places, often in acidic soils. 25-750m.	Absent: No habitat onsite
Caulanthus californicus	California jewelflower	FE, CE	Chenopod scrub, valley and foothill grassland, pinyon-juniper woodland	Historical from various valley habitats in both the Central Valley and Carrizo Plain. 65-900m.	Absent: No habitat onsite
Downingia pusilla	dwarf downingia	CNPS 2B.2	Valley and foothill grassland (mesic sites), vernal pools	Vernal lake and pool margins with a variety of associates. In several types of vernal pools. 1-485m.	Absent: No habitat onsite
Eryngium spinosepalum	spiny-sepaled button-celery	CNPS 1B.2	Vernal pools, valley and foothill grassland	Some sites on clay soil of granitic origin; vernal pools, within grassland. 100-420m.	Absent: No habitat onsite
Imperata brevifolia	California satintail	CNPS 2B.1	Coastal scrub, chaparral, riparian scrub, mojavean scrub, meadows and seeps (alkali)	Mesic sites, alkali seeps, riparian areas. 0-500m.	Absent: No habitat onsite
Lagophylla dichotoma	forked hare-leaf	CNPS 1B.1	Sierra Nevada foothills, Sacramento Valley, and San Joaquin Valley (UC Berkely, 2023c)	Grasslands, openings within woodlands. 50-400m (UC Berkley, 2023c)	Absent: No habitat onsite
Leptosiphon serrulatus	Madera leptosiphon	CNPS 1B.2	Cismontane woodland, lower montane coniferous forest	Dry slopes; often on decomposed granite in woodland. 80-1575m.	Absent: No habitat onsite
Navarretia myersii ssp. Myersii	pincushion navarretia	CNPS 1B.1	Vernal pools	Clay soils within nonnative grassland. 20-330 m.	Absent: No habitat onsite

Orcuttia inaequalis	San Joaquin Valley Orcutt grass	FT, CE	Vernal pools	15-660 m.	Absent: No habitat onsite
Orcuttia pilosa	hairy Orcutt grass	FE, CE	Vernal pools	45-200 m.	Absent: No habitat onsite
Pseudobahia bahiifolia	Hartweg's golden sunburst	FE, CE	Valley and foothill grassland, cismontane woodland	Clay soils, often acidic. Predominantly on the northern slopes of knolls, but also along shady creeks or near vernal pools	Absent: No habitat onsite
Pseudobahia peirsonii	San Joaquin adobe sunburst	FT, CE, CNPS 1B.1	Valley and foothill grassland, cismontane woodland	Grassy valley floors and rolling foothills in heavy clay soil. 90-800m.	Absent: No habitat onsite
Sagittaria sanfordii	Sanford's arrowhead	CNPS 1B.2	Marshes and swamps	In standing or slow-moving freshwater ponds, marshes, and ditches. 0-610m.	Absent: the drainage ditch is not perennial, and there are no known occurrences of this species in over 45 miles in over 30 years
Tuctoria greenei	Greene's tuctoria	FE	Vernal pools	Dry bottoms of vernal pools in open grasslands. 30-1070m.	Absent: No habitat onsite

*Definitions of Status Codes: FE = Federally listed as endangered; FT = Federally listed as threatened; CE = California State listed as endangered; CT = California State listed as threatened; SSC = California species of special concern; CNPS List 1A = Plants presumed extinct in California by CNPS; CNPS List 1B = CNPS designated rare or endangered plants in California and elsewhere; and CNPS List 2 = CNPS designated rare or endangered plants in California, but more common elsewhere.

**Copied verbatim from CNDDB or USFWS ECOS/FWS Focus, unless otherwise noted.

The following animals were detected during the field survey:

> western fence lizard (*Sceloporus occidentalis*); ground squirrel (*Otospermophilus beecheyi*); cat (*Felis catus*); dragonfly (*Odonata*); rock dove (*Columba livia*); and Pacific tree frog (*Pseudacris regilla*).

No special-status species were detected during the field survey. No active bird nests were detected; however, the trees and structures in the Study Area provide nesting habitat.

Impact Assessment and Recommendations

Impact Significance Criteria

The significance of impacts to biological resources depends upon the proximity and quality of vegetation communities and wildlife habitats, the presence or absence of special-status species, and the effectiveness of measures implemented to protect these resources from Project-related impacts. For the purposes of this report, sensitive habitats include those that are considered by natural resource agencies to be of limited distribution, require permits for impacts, or are identified as limited in distribution or of local importance in local plans. In general, the following are considered when evaluating whether a significant impact to biological resources would occur:

- Direct or indirect impacts to sensitive habitats, including waters of the U.S. or State;
- Interference with migratory wildlife corridors or the use of native wildlife nursery sites;
- Direct or indirect impacts to special-status species;
- Conflict with applicable policies or ordinances protecting biological resources; or
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved governmental habitat conservation plan.

Habitat Impacts

Vegetative Communities

Implementation of the Proposed Project will result in impacts to ruderal and developed habitat. These habitat types are highly modified from natural conditions and subject to ongoing disturbance. These habitats offer little value to plants and wildlife species and are not considered sensitive. Impacts to ruderal and developed habitats would not be considered significant and would not require mitigation.

Recommended Mitigation Measure

None.

Surface Water Resources

Surface water resources are generally considered sensitive habitats and additionally have the potential to be considered waters of the U.S. and/or State and subject to permitting under the federal Clean Water Act, State Porter-Cologne Act and California Fish and Game Code. Surface water resources within the Study Area that have the potential to be impacted by the Proposed Project include a freshwater marsh within a stormwater detention basin, and the West Branch Clovis Ditch. Both of these features are man-made, isolated, and do not offer suitable habitat to support special-status species. Aside from the freshwater marsh, the balance of the detention basin within the Study Area did not display hydrophytic

vegetation, standing water, or other indicators of a surface water resource. Therefore, the balance of the stormwater detention basin is considered ruderal habitat.

The freshwater marsh is an isolated feature within a man-made basin. Under the current definition of a water of the U.S., isolated wetlands that are man-made and dug from uplands are not considered waters of the U.S. The current definition of waters of the State includes "any surface water or groundwater, including saline waters, within the boundaries of the state." Per the *State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*, only certain artificial wetlands are considered waters of the State. The marsh was evaluated to determine if it met any of the conditions that would categorize it as a water of the State (**Attachment D**). The evaluation determined that the marsh failed to meet the conditions to be considered a water of the State. The Central Valley Regional Water Quality Control Board was consulted and concurred with the evaluation that the marsh did not meet the definition of a water of the State and that permitting would not be required (Scroggins, pers. comm., 2023; **Attachment D**).

The West Branch Clovis Ditch is an isolated segment of a larger ditch that historically drained into Dry Creek. However, as shown on NWI and in City mapping, the historic Clovis Ditch is now broken into two segments, with the West Branch Clovis Ditch isolated from other surface water resources (USFWS, 2023b; City of Clovis, 2014). The West Branch Clovis Ditch is a man-made irrigation ditch that was constructed from uplands and drains into uplands. The majority of this feature is piped underground, with only a small portion daylighted and limited to the section crossing the Study Area. This feature was dry at the time of the survey and is not connected to other surface water resources. Under the current regulatory definition of waters of the U.S., isolated man-made drainage ditches that were dug from uplands and drain into uplands are not considered waters of the U.S. Therefore, the West Branch Clovis Ditch would not be considered a water of the U.S.

However, this feature still has the potential to be considered a water of the State. Certain waters of the State impacts are exempt from permitting requirements, including impacts to certain agricultural ditches. Section IV.D(2c) of the *State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* provides the conditions under which an agricultural ditch is exempt from permitting (RWQCB, 2021). An evaluation of the West Branch Clovis Ditch found that it was likely exempt from permitting requirements (**Attachment D**). The Central Valley Regional Water Quality Control Board was consulted and concurred with the evaluation that the West Branch Clovis Ditch is a water of the State and that it met permit exemption conditions; therefore, permitting would not be required (Scroggins, pers. comm., 2023; **Attachment D**).

Additionally, impacts to the West Branch Clovis Ditch may require a Lake or Streambed Alteration Agreement (LSAA) from CDFW pursuant to Section 1602 of the California Fish and Game Code. Section 1602 of the California Fish and Game Code requires notification be provided to CDFW for activities impacting a river, stream, or lake. While the West Branch Clovis Ditch is not likely considered a river, stream, or lake, CDFW was contacted to provide information on the Proposed Project and the West Branch Clovis Ditch. CDFW requested proof that the West Branch Clovis Ditch was an isolated, man-made feature dug from uplands. Supporting documents were provided to CDFW. No further information was requested by CDFW (Kitch, pers. comm., 2023).

During review of the freshwater marsh and West Branch Clovis Ditch, it was determined that these features are isolated, man-made, non-jurisdictional, and do not provide habitat for special-status species. Therefore, impacts to these features would not be significant and mitigation would not be required.

Potential indirect impacts to water resources could occur during construction by degradation from stormwater transport of sediment from disturbed soils or by accidental release of hazardous materials or petroleum products from sources such as heavy equipment servicing or refueling. This is a potentially significant impact. However, the Proposed Project would require enrollment under the State Water Quality Control Board's Construction General Permit prior to the initiation of construction (for projects that disturb at least 1 acre of ground). In conjunction with enrollment under this Permit, a Storm Water Pollution Prevention Plan must be created and implemented during construction to avoid or minimize the potential for erosion, sedimentation, or accidental release of hazardous materials. Implementation of these measures mandated by law would reduce potential indirect construction-related impacts to water quality to a less-than-significant level.

Recommended Mitigation Measure

None.

Wildlife Corridors, Nursery Sites, and Other Habitat Features

As discussed above, no wildlife corridors, nursery sites, or other unique habitat characteristics were observed within the Study Area. Therefore, there would be no impacts to these resources, and no mitigation would be warranted.

Recommended Mitigation Measure

None.

Special-status Species and Nesting Birds

During the field survey, no listed species or special-status species were observed within the Study Area. No special-status animal species have a moderate or high potential to occur in the Project Area. As discussed within **Table 1**, the Study Area has marginal habitat for two special-status species that have a low potential to occur within the Study Area, including:

- **Burrowing owl:** Burrowing owl may forage within the ruderal habitat and may utilize ground squirrel burrows on site. Although none were observed during the site survey, burrowing owl could migrate into the Project Area between the time that the field survey was completed and the start of construction. Should active burrowing owl burrows occur within the Study Area at the commencement of construction, disturbance to the burrows would be a potentially significant impact. Mitigation presented below includes performing a preconstruction survey prior to impacts in order to confirm absence before groundbreaking and avoidance/exclusion of individuals should special-status animals be identified with compensation for loss of burrows. With mitigation, impacts to burrowing owls would be less than significant.
- **Swainson's hawk:** Swainson's hawk may forage over the Study Area. The amount and quality of foraging habitat is minimal and low quality due to the ruderal and fragmented natural of the site in an urban setting. Per CDFW's Staff Report Regarding Mitigation for Impacts to Swainson's Hawks in the Central Valley of California, mitigation for foraging habitat is deemed necessary only for foraging habitat within 10 miles of an active Swainson's hawk nest (CDFW, 1994). A query of CNDDB was run for occurrences of Swainson's hawk within 10 miles of the Study Area, and there are no known occurrences of active (used within the past 5 years) Swainson's hawk nests. Therefore, impacts to Swainson's hawk foraging habitat would be less than significant and would not require mitigation.

The Survey Area also contains suitable nesting habitat for various bird species because of the presence of trees and nearby structures. California Fish and Game Code protects nesting birds and their nests, and migratory birds are also protected under the Migratory Bird Treaty Act of 1918. If construction activities commence, or recommence during a delay in activity, during the bird nesting season (February through August), nesting birds could be directly impacted by tree removal and indirectly impacted by noise, vibration, and other construction-related disturbance. Impacts to nesting birds during construction is considered a potentially significant impact. Recommended mitigation below requires a pre-construction nesting bird survey to identify whether active nests exist in the vicinity of proposed construction activities. If active nests are present, measures to avoid "take" of active nests will be implemented prior to the initiation of construction activities. With the implementation of mitigation, adverse impacts to special-status bird species and nesting birds would be reduced to a less-than-significant level.

Recommended Mitigation Measures

Worker Training: Prior to construction, personnel shall complete worker environmental awareness training. The training shall present information on burrowing owls and notification procedures, and shall direct workers to halt work and allow individual burrowing owls to move off-site of their own accord. Construction personnel shall provide signatures confirming completion of the training, and copies of the training shall be maintained and made available to applicable agencies upon request.

Burrowing owl: A pre-construction survey shall be conducted by a qualified biologist no more than 14 days prior to construction activities. The preconstruction survey shall be conducted in accordance with the "Take Avoidance Surveys" described in CDFW's Staff Report on Burrowing Owl Mitigation (CDFW, 2012). If burrowing owls or sign of burrowing owls is not observed, results shall be documented and no further action is necessary.

Should burrowing owl burrows be observed, CDFW shall be consulted to determine necessary avoidance or exclusion methods. Mitigation shall follow CDFW recommended measures in CDFW's Staff Report on Burrowing Owl Mitigation (CDFW, 2012) and shall follow the below steps:

- If the burrows can be avoided, a qualified biologist shall demarcate a no-disturbance buffer around the burrows using high visibility fencing or pin flagging. The size of the buffer shall be established with CDFW and shall remain in place until construction is completed. Buffer sizes for burrowing owl, as detailed in CDFW's Staff Report, range from 50 meters to 500 meters depending on the level of disturbance and timing of disturbance.
- Should full avoidance be infeasible, CDFW shall be consulted to identify appropriate exclusion methods to be implemented prior to removal of the burrows. Consistent with the CDFW Staff Report, exclusion would not occur until a Burrowing Owl Exclusion Plan is approved by CDFW.
- In order to mitigate for loss of burrows that are excluded, the Burrowing Owl Exclusion Plan shall identify one of the following mitigation options, or a combination thereof, as outlined in the CDFW Staff Report "Mitigating Impacts" section:
    - Creation of artificial burrows commensurate to the number of burrows excluded;
    - Permanent conservation of like habitat, such as a conservation easement;
    - Purchase of conservation bank credits; and/or
    - An alternative mitigation strategy, as developed with and approved by CDFW.

Nesting Birds: If construction activities would occur during the nesting season (February 1 through August 31), a pre-construction survey for the presence of nesting bird species shall be conducted by a qualified biologist on and within 500 feet of proposed construction areas, as accessible. The survey shall

occur within five days of the commencement of construction activities. If active nests are identified in these areas, one of the following should occur:

- A qualified biologist shall establish a disturbance-free buffer zone using high-visibility fencing or flagging. The size of the buffer shall be determined by the qualified biologist based on the needs of the species. The buffer shall remain in place until either (1) construction activities are completed, (2) the conclusion of the nesting season, or (3) the qualified biologist determines that the young have fledged and are no longer dependent on the nest, or the nest has failed. If construction activities are halted for a period of more than 14 days, an additional preconstruction nesting bird survey shall be conducted.

  OR

- Commencement of construction activities shall be postponed until after the nesting season, or until after a qualified biologist has determined the young have fledged and are independent of the nest site or the nest has failed.

Policies, Ordinances, Habitat Conservation Plans, and Natural Community Conservation Plans

The Study Area is not within a Habitat Conservation Plan, Natural Community Conservation Plan, or other biological plan area. The City of Clovis, however, requires a tree removal permit for removal of trees greater than 12 inches diameter at breast height (dbh). As part of the permit process, an arborist report must be prepared to identify tree removal requiring permits. The tree removal permits also require mitigation, including avoidance of trees, replacement of trees, payment of in-lieu fees, or a combination thereof. As a tree removal permit would be a condition of approval and would require mitigation, no additional mitigation would be necessary beyond the required permit acquisition.

Recommended Mitigation Measure

None.

Preparers and Qualifications

G.O. Graening, Ph.D., M.S.E.

Dr. Graening holds a Doctorate in Biological Sciences and a Master of Science in Biological Engineering and is a certified arborist (International Society of Arboriculture). Dr. Graening has 26 years of experience in environmental assessment and research, including the performance of numerous wetland delineations and aquatic restoration projects, USFWS permitted work for multiple bat species, and plant surveys. Dr. Graening also served as an adjunct professor of biology at California State University Sacramento for 10 years and was an active researcher in the area of conservation biology and groundwater ecology.

Kelli Raymond, B.S.

Ms. Raymond holds a B.S. in Animal Biology with a focus on Wildlife Ecology. She has approximately 10 years of experience collecting field data and preparing environmental reports. Ms. Raymond has worked in several states across the U.S. performing biological resources surveys. She also has experience live handling numerous wildlife species, including fish, migratory birds, and big game. Ms. Raymond is experienced in the preparation of Biological Assessments and Section 7 consultation with both the USFWS and NMFS under the federal Endangered Species Act.

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Attachments:

Attachment A – Desktop Review

Attachment B – Site Photographs

Attachment C – List of Observed Plants

Attachment D – Waters of the State Evaluation and SWRCB Consultation

Attachment A

Desktop Review

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To:
Project Code: 2023-0134904
Project Name: Golden Triangle

September 28, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

PROJECT SUMMARY

Project Code: 2023-0134904
Project Name: Golden Triangle
Project Type: Commercial Development
Project Description: Commercial center
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@36.83276755,-119.70151542893993,14z

Counties: Fresno County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 9 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Fresno Kangaroo Rat *Dipodomys nitratoides exilis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5150	Endangered
San Joaquin Kit Fox *Vulpes macrotis mutica* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered

BIRDS

NAME	STATUS
California Condor *Gymnogyps californianus* Population: U.S.A. only, except where listed as an experimental population There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8193	Endangered
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

AMPHIBIANS

NAME	STATUS
California Tiger Salamander *Ambystoma californiense* Population: U.S.A. (Central CA DPS) There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRUSTACEANS

NAME	STATUS
Conservancy Fairy Shrimp *Branchinecta conservatio* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

FLOWERING PLANTS

NAME	STATUS
Greene's Tuctoria *Tuctoria greenei* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1573	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Kelli Raymond
Address: 5170 Golden Foothill Parkway
City: El Dorado Hills
State: CA
Zip: 95762
Email kraymond@acorn-env.com
Phone: 9162358224

Search Results

7 matches found. Click on scientific name for details

Search Criteria: Fed List is one of [**FE:FT:FC**] **or** State List is one of [**CE:CT:CR:CC**] , Quad is one of [**3611976:3611977:3611987:3611986:3611985:3611975:3611965:3611966:3611967**]

▲ SCIENTIFIC NAME	COMMON NAME	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	CA RARE PLANT RANK	GENERAL HABITATS	MICROHABITATS	LOWEST ELEVATION (FT)	HIGHEST ELEVATION (FT)	PHOTO
Castilleja campestris var. *succulenta*	succulent owl's-clover	annual herb (hemiparasitic)	(Mar)Apr-May	FT	CE	1B.2	Vernal pools (often acidic)		165	2460	No Photo Available
Caulanthus californicus	California jewelflower	annual herb	Feb-May	FE	CE	1B.1	Chenopod scrub, Pinyon and juniper woodland, Valley and foothill grassland	Sandy	200	3280	No Photo Available
Orcuttia inaequalis	San Joaquin Valley Orcutt grass	annual herb	Apr-Sep	FT	CE	1B.1	Vernal pools		35	2475	No Photo Available
Orcuttia pilosa	hairy Orcutt grass	annual herb	May-Sep	FE	CE	1B.1	Vernal pools		150	655	 © 2003 George W. Hartwell
Pseudobahia bahiifolia	Hartweg's golden sunburst	annual herb	Mar-Apr	FE	CE	1B.1	Cismontane woodland, Valley and foothill grassland	Acidic (often), Clay	50	490	No Photo Available
Pseudobahia peirsonii	San Joaquin adobe sunburst	annual herb	Feb-Apr	FT	CE	1B.1	Cismontane woodland, Valley and foothill grassland	Adobe, Clay	295	2625	No Photo Available
Tuctoria greenei	Greene's tuctoria	annual herb	May-Jul(Sep)	FE	CR	1B.1	Vernal pools		100	3510	 ©2008 F. Gauna

Showing 1 to 7 of 7 entries

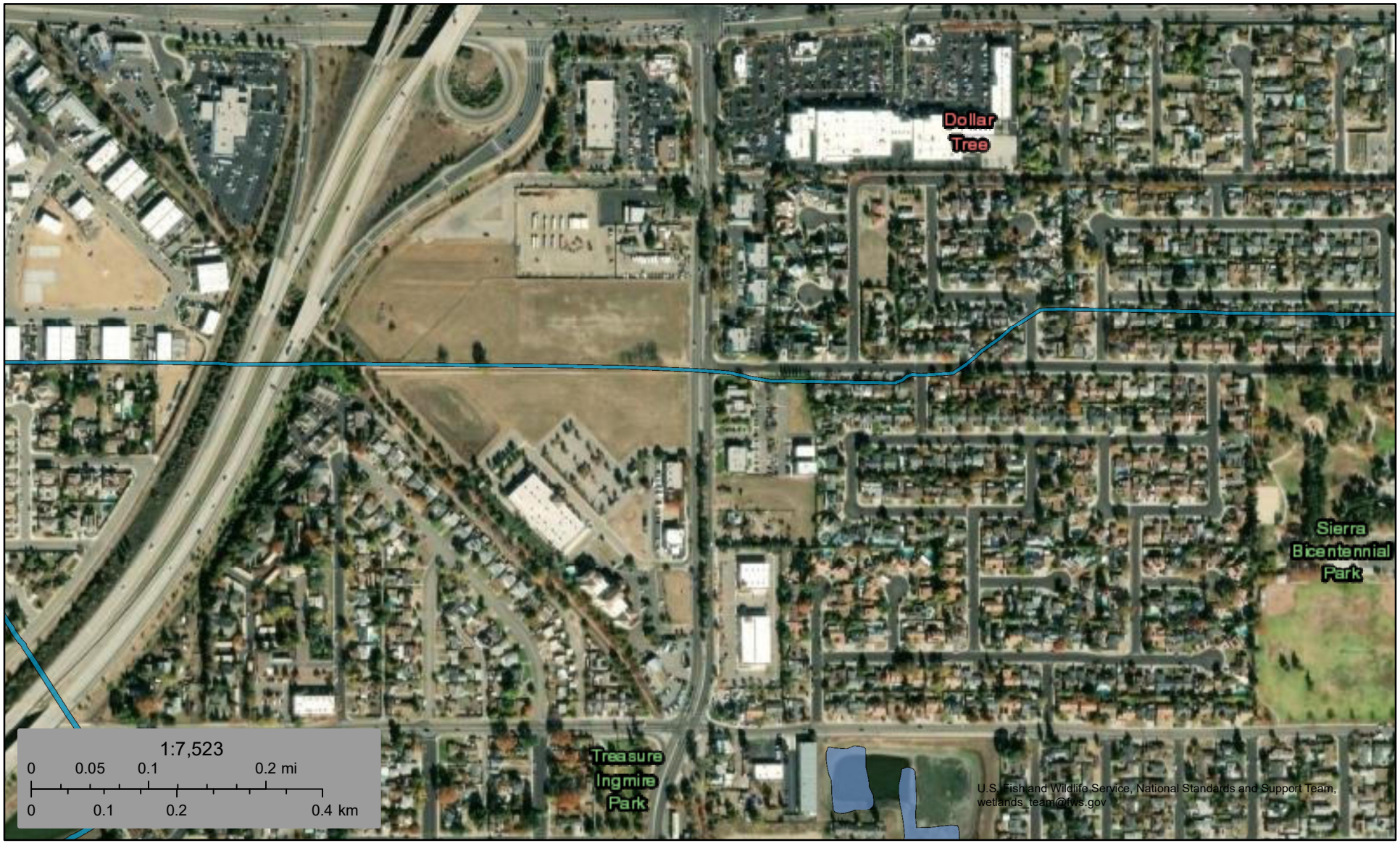
Suggested Citation:

California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website https://www.rareplants.cnps.org [accessed 28 September 2023].

U.S. Fish and Wildlife Service

National Wetlands Inventory

Clovis Golden Triangle



October 2, 2023

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.

Attachment B

Site Photographs

View of ruderal habitat and fencing on site.

Outflow of West Branch Clovis Ditch.

Portion of West Branch Clovis Ditch within Study Area.

View of graveled storage area within Study Area.

Attachment C

List of Observed Plants

Plants Observed at Golden Triangle, Clovis
on October 3, 2023

Common Name	**Scientific Name**
Deerweed	*Acmispon glaber*
Tree of Heaven	*Ailanthus altissima*
Ragweed	*Ambrosia sp.*
Pimpernel	*Anagallis arvense*
Wild oat	*Avena barbata*
Black mustard	*Brassica nigra*
Ripgut brome	*Bromus diandrus*
Soft chess	*Bromus hordeaceus*
Italian thistle	*Carduus pycnocephalus*
Catalpa	*Catalpa sp.*
Field bindweed	*Convolvulus arvensis*
Dove weed	*Croton setiger*
Tall flatsedge	*Cyperus eragrostis*
Jimsonweed	*Datura sp.*
Jungle rice	*Echinochloa sp.*
Tall willowherb	*Epilobium brachycarpum*
Horseweed	*Erigeron canadensis*
Narrow-leaved ash	*Fraxinus angustifolia*
Barley	*Hordeum murinum*
English walnut	*Juglans regia*
Rush	*Juncus effusus*
Prickly lettuce	*Lactuca serriola*
Crepe myrtle	*Lagerstroemia sp.*
Sprangletop	*Leptochloa fusca*
Mulberry	*Morus sp.*
Date palm	*Phoenix dactylifera*
Purple leaf plum	*Prunus cerasifera*
Common plantain	*Plantago major*
Bradford pear	*Pyrus calleryana*
Southern live oak	*Quercus virginiana*
Rosemary	*Rosmarinus sp.*
Russian thistle	*Salsola sp.*
Coast redwood	*Sequoia sempervirens*
Puncture vine	*Tribulus terrestris*
Vinegar weed	*Trichostema sp.*
Cattail	*Typha sp.*
Elm	*Ulmus pumila*

Attachment D

Waters of the State Evaluation and Consultation

Technical Memorandum

To:	Matthew Scroggins, Senior Water Resource Control Engineer
	Regional Water Quality Control Board
From:	Ryan Sawyer, AICP, Project Director
	Acorn Environmental
Date:	November 9, 2023
Subject:	Clovis Golden Triangle Development Waste Discharge Requirements Permitting

Introduction

This technical memorandum has been prepared to support the conclusion that aquatic permits are not required for the Development Plan and Master Site Plan for the Golden Triangle Planned Commercial Center (PCC) (Proposed Project) in the City of Clovis. The Golden Triangle PCC consists of approximately 37 acres located southwest of the Clovis Avenue and Magill Avenue intersection. The Study Area shown in **Figure 1** identifies the boundary of project areas and ground disturbance and **Figure 2** shows the location of isolated water resources. The purpose of this memorandum is to describe surface water resources present within the Study Area, to provide a historical account of these features, and to provide the rationale on why we understand these features to not be subject to permitting under the Porter-Cologne Water Quality Control Act.

Surface Water Resources

Methodology

In order to identify surface water resources, the following were completed:

- The U.S. Fish and Wildlife Service National Wetlands Inventory was reviewed (**Attachment 1**)
- Historic and current aerials were reviewed
- The Fresno Irrigation District was consulted
- Acorn senior biologist Dr. G.O. Graening conducted a preliminary jurisdictional delineation of the Study Area on October 3, 2023

As a result of the above, it was determined that two water resources occur within the Study Area: a portion of the West Branch Clovis Ditch, and a freshwater marsh located at the base of a stormwater detention basin. These features are discussed in detail below, and images are provided in **Figure 3**.

Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community, Maxar

FIGURE 1
AERIAL OVERVIEW

Marsh observed at the base of stormwater detention pond within the Study Area

West Branch Clovis Ditch crossing the Study Area

Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community, Maxar

FIGURE 3
WATER RESOURCES

West Branch Clovis Ditch

The NWI reported a single surface water resource within the Study Area. This feature is listed as "Riverine" habitat and bisects the Study Area in an east to west direction. This feature was identified in the field as a portion of the West Branch Clovis Ditch, which is a manmade agricultural irrigation ditch. This feature is an earthen trapezoidal ditch that is approximately 12 feet wide at the top and 4 feet deep. The channel bottom is lined with hydrophytic vegetation, including tall flatsedge (*Cyperus eragrostis*), common rush (*Juncus effusus*), and cattail (*Typha*). The West Branch Clovis Ditch was dry at the time of the survey.

The Clovis Ditch historically was a 4.5 mile man-made agricultural irrigation ditch that began at a head gate on the Enterprise Canal where it crossed Herndon Avenue to the east, terminating at a channelized section of Dry Creek. Originally constructed as an earthen open-cut ditch, the conveyance is now piped underground for more than 95% of its length; the only portion left that is daylighted is the portion that crosses the project site. The West Branch Clovis Ditch is a portion of the larger Clovis Ditch that has since become fragmented from the balance of the irrigation network and is now isolated. The West Branch Clovis Ditch was dug from uplands and drains into uplands. While precise impacts have not yet been defined, it is expected that the ditch will be re-routed away from development areas within the Study Area in coordination with the Fresno Irrigation District.

Marsh

A man-made stormwater detention basin occurs within the Study Area. The majority of this basin has upland vegetation (primarily European annual grasses) and does not fit the regulatory definition of a wetland. A small poorly-drained area (0.06 acres in size), identified as a freshwater marsh, is located in the southwest corner of the basin and contains hydrophytic vegetation such as tall flatsedge (*Cyperus eragrostis*) and common rush (*Juncus effusus*).

The stormwater detention basin is a man-made feature operated by the Fresno Metropolitan Flood Control District and dug wholly from uplands. The stormwater detention basin was established to serve the Study Area exclusively and does not have a hydrological connection to other surface water resources. Currently, the Fresno Metropolitan Flood Control District is in the process of installing a stormwater collection system, and it is expected that an abandonment agreement will be in place for this stormwater detention basin prior to construction.

Waters of the State Determination

West Branch Clovis Ditch

Under the current regulatory definition of waters of the U.S., isolated man-made drainage ditches that were dug from uplands and drain into uplands are not considered waters of the U.S. Therefore, the West Branch Clovis Ditch would not be considered a water of the U.S. However, this feature still has the potential to be considered a water of the State. Under the current definition of waters of the State, the term is defined to include any surface water or groundwater,

including saline waters, within the boundaries of the state. Therefore, it appears that the portion of the West Branch Clovis Ditch within the Study Area is considered a water of the State.

Marsh

As discussed above, the marsh was generated artificially by the creation of a man-made stormwater detention basin. Under the current definition of a water of the U.S., isolated wetlands that are man-made and dug from uplands are not considered waters of the U.S. However, this feature still has the potential to be considered a water of the State. Per the State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State, only certain artificial wetlands are considered waters of the State. The table below itemizes the conditions that would merit classification of an artificial wetland as a water of the State, along with a rationale as to whether or not the marsh meets the criteria.

Condition (State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State, Section II)	**Meets condition?**	**Rationale**
Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration	No	The stormwater detention basin was created for stormwater collection and treatment; therefore, the marsh is not part of a compensatory mitigation program.
Specifically identified in a water quality control plan as a wetland or other water of the state	No	The marsh is within a manmade stormwater detention basin and is not a component of a water quality control plan.
Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape	No	Although the marsh resulted from historic human activity, the entirety of the stormwater detention basin is presently operated and maintained by the Fresno Metropolitan Flood Control District
Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes:	No	The marsh is less than one acre in size. Additionally, the marsh is within a stormwater detention basin operated and maintained by the Fresno Metropolitan Flood Control District, which satisfies purpose iii.

i. Industrial or municipal wastewater treatment or disposal ii. Settling of sediment iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program iv. Treatment of surface waters v. Agricultural crop irrigation or stock watering vi. Fire suppression vii. Industrial processing or cooling viii. Active surface mining – even if the site is managed for interim wetlands functions and values ix. Log storage x. Treatment, storage, or distribution of recycled water xi. Maximizing groundwater recharge xii. Fields flooded for rice growing		

Based on the discussion above, it appears that the marsh does not meet the definition of a water of the State.

WDR Permitting Need Analysis

West Branch Clovis Ditch

In general, features that do not meet the definition of a water of the U.S. but do meet the definition of a water of the State are subject to permitting requirements as dictated by the Porter-Cologne Water Quality Control Act. Impacts to waters of the State, under the Porter-Cologne Water Quality Control Act, would generally require acquisition of a Waste Discharge

Requirement permit. However, the State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State provides exemptions for certain ditches. The table below outlines the conditions for exemption satisfied by the West Branch Clovis Ditch. The West Branch Clovis Ditch need only satisfy one exemption, however, the table below identifies all exemptions that the ditch satisfies for the sake of thoroughness.

Condition (State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State, Section IV.D(2c))	**Rationale**
Agricultural ditches with ephemeral flow that are not a relocated water of the state or excavated in a water of the state	The West Branch Clovis Ditch is owned by the Fresno Irrigation District and was constructed as an agricultural irrigation ditch. The ditch has ephemeral flow and was dry at the time of the survey. The ditch was dug from uplands by the Fresno Irrigation District and did not relocate a natural surface water.
Agricultural ditches with intermittent flow that are not a relocated water of the state or excavated in a water of the state, or that do not drain wetlands other than any wetlands described in sections (iv) or (v)	The West Branch Clovis Ditch is owned by the Fresno Irrigation District and was constructed as an agricultural irrigation ditch. The ditch has intermittent flow and was dry at the time of the survey. This feature is isolated and does not drain into other surface waters. As noted above, the ditch is wholly piped underground except for where it crosses the Study Area.
Agricultural ditches that do not flow, either directly or through another water, into another water of the state	The West Branch Clovis Ditch is owned by the Fresno Irrigation District and was constructed as an agricultural irrigation ditch. As noted above, this feature is isolated and does not flow into other waters.

Based on the discussion above, the West Branch Clovis Ditch appears to be a water of the State that is exempt from Waste Discharge Requirement permitting.

Marsh

As discussed above, the marsh does not appear to meet the definition of a water of the State. Therefore, the marsh would not require Waste Discharge Requirement permitting.

Conclusion

We respectfully submit this information for review and request that the Regional Water Quality Control Board provide a response on whether it concurs with the above findings and rationale.

From:	Scroggins, Matt@Waterboards
To:	Jeff Milgrom
Cc:	Ryan Sawyer; Kelli Raymond; Eric Tienken; Hal Lore; Bryan Pok; Roger Hurtado
Subject:	RE: Waste Discharge Requirement Permitting Need - Golden Triangle Clovis, CA
Date:	Friday, December 29, 2023 9:02:10 AM
Attachments:	image001.png image002.png image003.png

Hi Jeff,

I've reviewed the Technical Memorandum prepared by Acorn Environmental. As identified in the Technical Memorandum, the *State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (Procedures) defines what features are considered wetlands, what wetlands are waters of the state, and what activities/areas are excluded from the Procedures. The Technical Memorandum provides documentation supporting findings that 1) the marsh in the stormwater detention basin is not a water of the state per the Procedures, and 2) the discharge of fill to West Branch Clovis Ditch is excluded from the Procedure's application requirements. My review found no basis to object to such findings.

Based on the finding that the marsh in the stormwater detention basin is not a water of the state per the Procedures, no dredge/fill permitting from our agency is required for impacts to the stormwater detention basin. While dredge/fill impacts to West Branch Clovis Ditch appear to be excluded from the Procedures' application requirements per Section IV.D.2.c of the Procedures, the Procedures make clear that the Water Boards can decide to otherwise regulate a dredge/fill project to the extent authorized by the California Water Code. In other words, the Central Valley Water Board has the discretion to require Waste Discharge Requirements (WDRs) for discharges of dredged or fill material to West Branch Clovis Ditch. However, due to the isolated nature of West Branch Clovis Ditch, the limited habitat value of the ditch, the project location, the nature of downstream waters, etc., Central Valley Water Board staff does not propose to require a Report of Waste Discharge or regulate the discharge of dredge/fill material to West Branch Clovis Ditch under WDRs.

Notwithstanding the above, the project proponent is expected to implement best management practices during the project to prevent impacts to water quality, including, but not limited to, erosion and sediment control measures, and site management measures for equipment and materials that could potentially be a threat to water quality if discharged. Other Water Board permits such as the NPDES Construction Stormwater Permit may be necessary for the development of the project area. Also, the decision to not issue WDRs is applicable to the specific project area identified in the Technical Memorandum and is not intended to set a precedent for future activities. Legacy Construction should notify the Central Valley Water Board of other proposed projects in order to determine if a Section 401 Water Quality Certification and/or WDRs are required and to address any water quality concerns.

Lastly, the Central Valley Water Board reserves the right to investigate and take enforcement as appropriate for any discharges that are causing, or are threatening to cause, nuisance/pollution conditions.

Let me know if you have any questions concerning this matter.

Regards,
-Matt

==========
MATTHEW S. SCROGGINS, P.E.
SENIOR WATER RESOURCE CONTROL ENGINEER
NPDES WASTEWATER PERMITTING/STORMWATER/DREDGE & FILL UNIT
CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD (REGION 5) – FRESNO
1685 "E" STREET
FRESNO, CA 93706
PHONE: 559-445-6042

SAVE OUR WATER

From: Jeff Milgrom <jmilgrom@lcfresno.com>
Sent: Thursday, November 9, 2023 5:16 PM
To: Scroggins, Matt@Waterboards <Matt.Scroggins@waterboards.ca.gov>
Cc: Ryan Sawyer <rsawyer@acorn-env.com>; Kelli Raymond <kraymond@acorn-env.com>; Eric Tienken <Eric@lcfresno.com>; Hal Lore <hal@lore-engineering.com>; Bryan Pok <bryan@clinedesignllc.com>; Roger Hurtado <roger@clinedesignllc.com>
Subject: Waste Discharge Requirement Permitting Need - Golden Triangle Clovis, CA

EXTERNAL:

Mr. Scroggins,

Please find attached a technical memorandum prepared by our consultant Acorn Environmental to support the conclusion that aquatic permits are not required for the Development Plan and Master Site Plan for the Golden Triangle Planned Commercial Center (PCC) (Proposed Project) in the City of Clovis. We request your office's review and concurrence with these findings. Please let me know if you would like any additional information to support your review. Thank you in advance for your assistance.

Thank you,

LEGACY CONSTRUCTION

Jeff Milgrom
Sr. Development Manager

Mobile: 559.977.0748
Office: 559.291.1922
Fax: 559.314.6190

5390 E Pine Ave,
Fresno, CA 93727
CSLB License # 891883

APPENDIX C

Cultural Resources Report

CULTURAL RESOURCES INVENTORY & EVALUATION

Golden Triangle Planned Commercial Center
Clovis, CA

Prepared for: City of Clovis

October 24, 2023

acorn environmental

Table of Contents

List of Figures

List of Appendices

Section 1 | Introduction

1.1 PROJECT DESCRIPTION AND LOCATION

This report presents the scope and results of a cultural resources inventory and evaluation for planning entitlements related to a proposed update to the Development Plan and Master Site Plan for the Golden Triangle Planned Commercial Center (PCC) (Proposed Project) in the City of Clovis (see **Figure 1**). The Golden Triangle PCC Area consists of approximately 37 acres located southwest of the Clovis Avenue and Magill Avenue intersection (PCC Boundary). The PCC Boundary is bordered by Magill Avenue-State Route (SR) 168 to the north, the Clovis Old Town Trail to the south, and Clovis Avenue to the east (see **Figure 2**). Portions of the PCC Boundary have been developed with land uses consistent with the existing Master Plan. The study area addressed in this report is limited to the proposed development boundary (roughly 20 acres) within the larger PCC Boundary (Study Area; see **Figure 3**).

The Study Area is situated in Township 13 south Range 21 east Section 5 as depicted on the *Clovis, CA* United States Geological Survey (USGS) 7.5-minute topographic quadrangle. A topographic map and an aerial photograph of the study area are shown in **Figures 2** and **3**, respectively.

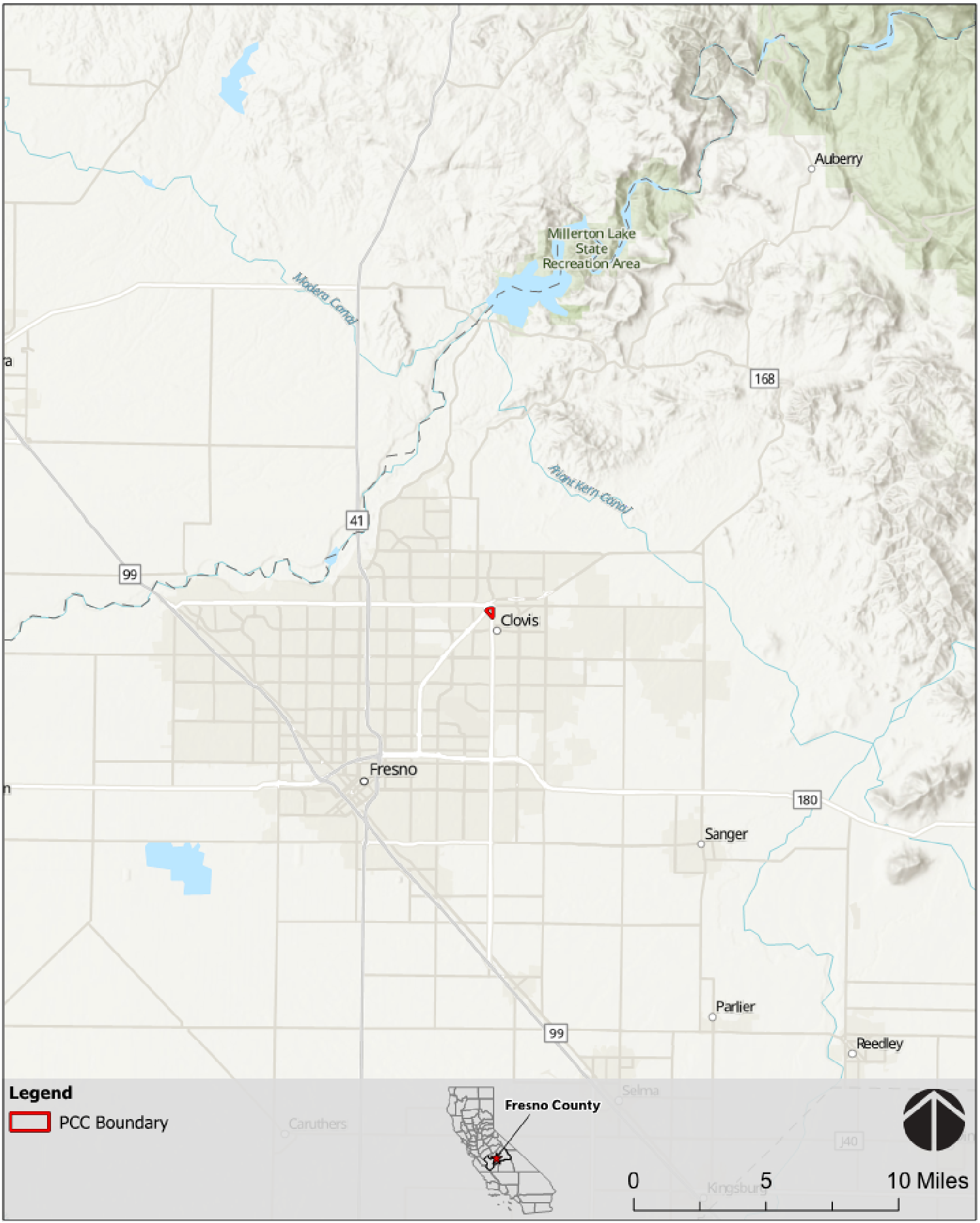
1.2 REGULATORY CONTEXT

The study was performed consistent with the requirements of Section 106 of the National Historic Preservation Act (NHPA), the California Environmental Quality Act (CEQA), and the City of Clovis General Plan (2014). The following sections provide a summary of the applicable regulatory frameworks.

1.2.1 National Historic Preservation Act

Section 106 of the National Historic Preservation Act (NHPA) as amended, and the implementing regulations found at 36 Code of Federal Regulations (CFR) Part 800, requires federal agencies to take into account the effects of undertakings on historic properties. An undertaking is a "project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency; those carried out with Federal financial assistance; and those requiring a Federal permit, license or approval" (36 CFR 800.16(y). Issuance of a Section 404 permit by the US Army Corps of Engineers constitutes an undertaking.

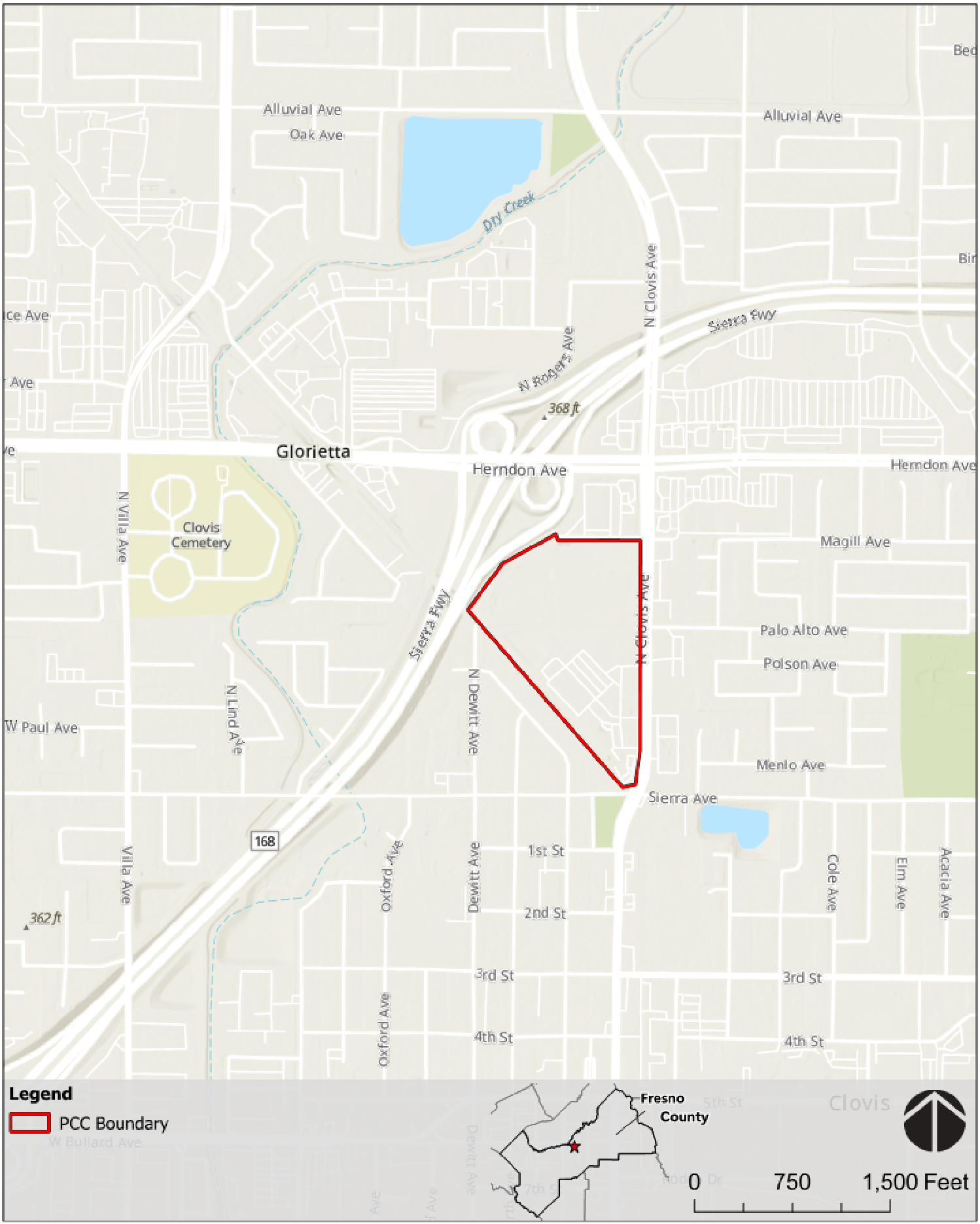
A historic property is defined as “...any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places [NRHP] maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria.”



City Of Fresno, Fresno County Dept. PWP, California State Parks, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, Esri, NASA, NGA, USGS

FIGURE 1

REGIONAL LOCATION



Esri Community Maps Contributors, City Of Fresno, Fresno County Dept. PWP, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land

FIGURE 2
SITE AND VICINITY

Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community, Maxar

FIGURE 3
AERIAL OVERVIEW

The eligibility of a resource for listing in the NRHP is determined by evaluating the resource using criteria defined in 36 CFR 60.4, as follows:

> *The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, association, and*
>
> A. That are associated with events that have made a significant contribution to the broad patterns of our history;
> B. That are associated with the lives of persons significant in our past;
> C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
> D. That have yielded, or may be likely to yield, information important to prehistory or history.

Resources less than 50 years of age, unless of exceptional importance, are not eligible for listing in the NRHP. In addition to meeting at least one of the criteria listed above, the resource must also retain enough integrity to enable it to convey its historic significance. A historic property will always possess several, and usually most, aspects of integrity. The NRHP recognizes seven aspects or qualities that, in various combinations, define integrity (NPS 1990):

1. Location – the place where the historic property was constructed or the place where the historic event occurred.
2. Design – the combination of elements that create the form, plan, space, structure, and style of a property.
3. Setting – the physical environment of a historic property.
4. Materials – the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
5. Workmanship – the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
6. Feeling – a property's expression of the aesthetic or historic sense of a particular period of time.
7. Association – the direct link between an important historic event or person and a historic property.

The criteria of adverse effect (36 CFR 800.5(a)[1]) establishes thresholds for determining whether an undertaking would alter, directly or indirectly, any of the characteristics of a historic property such that the integrity of the property's location, design, setting, materials, workmanship, feeling, or association would be significantly impaired. Examples of adverse effects include:

- physical destruction of or damage to all or part of the property;
- alteration of a property;
- removal of the property from its historic location;

- change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features;
- neglect of a property that causes its deterioration; and
- transfer, lease, or sale of the property.

If an adverse effect is found, the agency official shall consult further to resolve the adverse effect pursuant to 36 CFR 800.6.

1.2.2 California Environmental Quality Act

Projects in California requiring discretionary approval from public agencies are subject to CEQA, which requires consideration of potential impacts to historical resources (Public Resources Code [PRC] Section 21083.2). As applied in CEQA, historical resources are defined as "buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, or scientific importance" (PRC Section 50201).

The CEQA Guidelines, found in Title 14, Division 6, Chapter 3 of the California Code of Regulations, serve as administrative regulations that oversee the execution of the California Environmental Quality Act. These guidelines align with the stipulations outlined in the Public Resources Code, in addition to court rulings that provide interpretation of the law, and pragmatic factors related to planning.

Under the CEQA Guidelines, an effect is considered significant if a project will result in a substantial adverse change to the resource (PRC Section 21084.1). Actions that would cause a substantial adverse change to a historical resource include demolition, replacement, substantial alteration, and relocation. When it is determined that a project may cause a substantial adverse change to a historical resource, alternative plans or measures to mitigate effects to the resource must be considered.

The CEQA Guidelines (Section 15064.5) define four cases in which a cultural resource may qualify as a significant historical resource for the purposes of CEQA review:

A) The resource is listed in or determined eligible for the listing in the California Register of Historical Resources (CRHR). Section 5024.1 defines eligibility requirements and states that a resource may be eligible for inclusion in the CRHR if it:

    1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
    2. Is associated with the lives of persons important in our past;
    3. Embodies the distinctive characteristics of a type, period, region, or method of construction, represents the work of an important creative individual, or possesses high artistic values; or
    4. Has yielded, or may be likely to yield, information important in prehistory or history.

Properties must retain integrity to be eligible for listing on the CRHR. Properties that are listed in or eligible for listing in the National Register of Historic Places (NRHP) are automatically considered eligible for listing in the CRHR, and thus are significant historical resources for the purpose of CEQA (PRC Section 5024.1[d][1]).

B) The resource is included in a local register of historic resources, as defined in section 5020.1(k) of the PRC, or is identified as significant in a historical resources survey that meets the requirements of section 5024.1(g) of the PRC (unless the preponderance of evidence demonstrates that the resource is not historically or culturally significant).

C) The lead agency determines it is a historical resource as defined in PRC Section 5020.1(j) or 5024.1, as supported by substantial evidence in light of the whole record.

D) The resource is found to be a *unique archaeological resource*, defined as "an archaeological artifact, object, or site about which it can be clearly demonstrated" as meeting any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Assembly Bill 52

Signed into law in September of 2014, Assembly Bill 52 (AB 52) established Tribal Cultural Resources (TCRs) as a new category under CEQA and mandated a more rigorous process for consultation among California Native American Tribes and CEQA lead agencies. The law also requires noticing and consultation with affected Native American tribes for projects filing a Notice of Preparation, Notice of Mitigated Negative Declaration or Notice of Negative Declaration is filed on or after July 1, 2015. (Stats. 2114, ch. 532, § 11 (c)).

TCRs are defined in PRC 21074 as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

- Included or determined to be eligible for inclusion in the California Register of Historical Resources or is listed in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1 [of the PRC]. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

A project that has potential to impact a TCR such that it would cause a substantial adverse change constitutes a significant effect on the environment unless mitigation reduces such effects to a less than significant level.

1.2.3 City of Clovis General Plan

The City of Clovis General Plan provides a framework for development within the city and supports protection of the natural and cultural resources that lie within. The goals and policies are applicable throughout the city. The singular goal and implementation policies related to cultural resources excerpted from the General Plan are presented below.

Goal 2:

Natural, agricultural, and historic resources that are preserved and promoted as key features for civic pride and identity.

Policies

2.9 National and state historic resources. Preserve historical sites and buildings of state or national significance in accordance with the Secretary of Interior Standards for Historic Rehabilitation.

2.10 Local historic resources. Encourage property owners to maintain the historic integrity of the site by (listed in order of preference): preservation, adaptive reuse, or memorialization.

Applicable General Plan Mitigation Measures

The Final Environmental Impact Report (EIR) for the City's 2014 General Plan update provides five measures related to cultural resources that apply to future discretionary development approvals (p. 5.5-17 – 5.5-20). The five mitigation measures are informed by the supporting cultural resources study by Treffers and Dietler (2012).

- *5-1 Prior to any construction activities of individual projects that may affect historic resources, a historic resources assessment shall be performed by an architectural historian or historian who meets the Secretary of the Interior's Professional Qualifications Standards requirements in architectural history or history. The assessment shall include a records search at the Southern San Joaquin Valley Information Center to determine if any resources that may potentially be affected by the project have been previously recorded, evaluated, and/or designated on the National Register of Historic Places or California Register of Historic Resources. Following the records search, the qualified architectural historian or historian will conduct a reconnaissance- level and/or intensive-level survey in accordance with the California Office of Historic Preservation guidelines to identify any previously unrecorded potential historic resources that may potentially be affected by the proposed project. If the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code Section 5024.1, Title 14 CCR, Section 4852), mitigation shall be identified within the technical study that ensures the value of the historic resource is maintained.*

- *5-2 To ensure that individual projects requiring the relocation, rehabilitation, or alteration of a historic resource do not impair its significance, the Interior's Standards for the Treatments of Historic Properties (Standards) shall be used. The application of the standards shall be overseen by a qualified architectural historian or historic architect meeting the Secretary of the Interior's Professional Qualifications Standards. Prior to any construction activities that may affect the historic resource, a report identifying and specifying the treatment of character-defining features and construction activities shall be provided to the City of Clovis.*

- *5-3 If an individual project would result in the demolition or significant alteration of a historic resource, it cannot be mitigated to a less than significant level. However, recordation of the resource prior to construction activities will assist in reducing adverse impacts to the resource to the greatest extent possible (but not avoid a significant impact). Recordation shall take the form of Historic American Buildings Survey, Historic American Engineering Record, or Historic American Landscape Survey documentation, and shall be performed by an architectural historian or historian who meets the Secretary of the Interior's Professional Qualifications Standards. Documentation shall include an architectural and historical narrative; medium- or large-format black-and-white photographs, negatives, and prints; and supplementary information such as building plans and elevations and/or historic photographs. Documentation shall be reproduced on archival paper and placed in appropriate local, state, or federal institutions. The specific scope and details of documentation will be developed at the project level.*

- *5-4 The City staff shall retain a cultural resources consultant to prepare a study and a map of the Plan Area categorizing sensitivity levels for archaeological resources. The study shall identify areas of low archaeological sensitivity for which subsequent site-specific archaeological studies will not be required, as well as identify the subsequent requirements for archaeologically sensitive areas. The study must be determined to be current at the time of pulling a grading permit, and if not current, updated by the applicant at the time of the specific project. Development applications prior to the City's completion of the sensitivity area mapping shall be required to prepare a site-specific cultural resources analysis in accordance with existing City procedures.*

  The following mitigation shall be required for subsequent development projects, based on the sensitivity classification of the project site:

  1. *Low sensitivity sites: Additional studies will not be required.*

  2. *Archaeologically sensitive sites: City staff shall require applicants for grading permits in undeveloped (not covered in buildings or pavement) areas requiring grading to provide studies by qualified archaeologists assessing the cultural and historical significance of any known archaeological resources on or next to each respective development site. Such studies shall provide a detailed mitigation plan, including a monitoring program and recovery and/or in situ preservation plan, based on the recommendations of a cultural preservation expert who meets the Secretary of the Interior's Professional Qualifications Standards.*

- *5-5 Should any cultural resources, including human remains, be discovered during project implementation, no further grading shall occur in the area of the discovery until the Planning Director concurs in writing that adequate provisions are in place to protect these resources. Unanticipated*

discoveries shall be treated in accordance with applicable state law and evaluated for significance by a professional archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards. If significance criteria are met, then the project shall be required to protect the resource through avoidance or mitigate impacts to the resource by performing data recovery; curate materials with a recognized scientific or educational repository; and provide a comprehensive final report including appropriate records for the California Department of Parks and Recreation Series 523 forms (Building, Structure, and Object Record; Archaeological Site Record; or District Record, as applicable.

Section 2 | Natural and Cultural Setting

2.1 ENVIRONMENTAL SETTING

The Study Area is located in central Fresno County, on the eastern edge of the San Joaquin Valley. It is situated on relatively flat topography, roughly 5.5 miles southeast of the San Joaquin River and 14 miles northwest of the Kings River. The project area lies near the transition between the San Joaquin Valley and the lower Sierra Nevada Foothills. Millerton Lake, constructed on the western edge of the foothills, is located 11 miles to the north, and Pine Flat Reservoir on the Kings River is located roughly 20 miles due east. The elevation within the project area is approximately 365 feet above sea level.

Geologically, the San Joaquin Valley is a long trough that receives sediment from the Sierra Nevada transported by rivers and streams. The San Joaquin River has played an outsized role in shaping the landscape of the central and northern San Joaquin Valley. Most importantly, it has actively transported eroded material from the Sierra Nevada Mountains to create the rich alluvial plains that define the valley's fertile character over millions of years. The river has carved out a complex network of channels and tributaries across the valley, shaping the distribution of wetlands, riparian habitats, and laying the foundation for agriculture. The San Joaquin River is the southern-most Sierran river with a nexus to the Sacramento – San Joaquin Delta and the ocean beyond.

The valley floor is underlain by the mass of granite known as the Sierra Nevada Batholith. Glacial outwash and more recent alluvium capping the batholith is miles thick in some locations. Alluvial fans spreading from the large rivers exiting the lower Sierra Nevada have shaped the drainage patterns of the valley, effectively cutting off rivers of the southern San Joaquin Valley from the ocean. To the south, the Kings, Kaweah, Tule, and Kern drain to closed basins that historically formed large, shallow lakes.

Soils on the Study Area are dominated by Atwater sandy loam, which covers approximately 99% of the surface (NRCS 2023). This soil group is found on the shoulder and footslope of ancient dune and alluvial fan remnants. The source material is wind-blown deposits derived from granite alluvium. This soil profile lacks the hardpan observed elsewhere in the region.

To the east in the foothills, landforms include granitic alluvial fans and terraces interspersed with rocks of Mesozoic and Precambrian age. Outcrops of granite, quartz monzonite, granodorite, and quartz diorite abound (Jennings et al. 1977). Metamorphic rocks such as gneiss are also present in the area. The primary geomorphic processes are fluvial erosion and deposition (Miles and Goudey 1997).

The climate of the lower elevations of Fresno County is typical of the eastern San Joaquin Valley. Temperatures and precipitation vary considerably during the year, characterized by hot, dry summers and cold, wet winters. The nearest natural surface water is Dry Creek, a former stream channel located 0.5 mile distant to the north and west. West of the Friant – Kern Canal, Dry Creek has been diked, channelized, and otherwise altered from its natural configuration. Annually, the area receives approximately 17 inches of precipitation in the form of rain, with the majority occurring between October and April.

Vegetation at the Study Area is ruderal and has been cultivated in the past for row crops. Prior to the introduction of agriculture, the vicinity of the Study Area was likely prairie grassland interrupted by groves of valley oak in well drained soils.

Current animal populations are substantially altered in density, composition, and distribution from pre-historic populations. The grasslands and riparian corridors in the region supported a diverse array of fish, amphibian, reptile, bird, and mammal species. Prior to mining agriculture, the San Joaquin River to the north was one of the largest salmon fisheries in California, with spring and fall runs of Chinook (Yoshiyama et al. 2001).

Wildlife commonly observed in the region includes rabbits, hares, ground squirrels, gophers, and mice. Common birds of prey are present in the San Joaquin Valley including Red-shouldered hawks, Red-tailed hawks, Black-shouldered kite, and American kestrel Larger. Other common birds include quail, crow acorn woodpeckers, vultures, and songbirds.

Medium sized mammals include skunk, bobcat, kit fox, and coyote. Prior to extirpation during the Gold Rush and subsequent agricultural development, large mammals roamed the valley floor including grizzly and black bears, tule elk, pronghorn, and black-tailed deer (Schoenherr 1992).

2.2 ARCHAEOLOGICAL OVERVIEW

The archaeological record of the San Joaquin Valley is comparatively limited as a result of widespread surface disturbance from agriculture, levee construction, and geomorphic processes that have buried ancient surfaces episodically during the terminal Pleistocene and early Holocene. The region lacks a universally accepted cultural chronology and is generally described in relation to adjacent regions such as the Sierra foothills and Delta region. The sections below summarize the region's prehistory using the cultural periods suggested by Rosenthal et al. (2007) and Rosenthal (2011), with reference to regional phases delineated by Moratto (1984).

Paleo Indian Period (13,500 – 10,500 B.P.)

The first well documented phase of human occupation in the San Joaquin Valley stretches back to the terminal Pleistocene, between roughly 13,500 and 10,500 years before present (B.P.) The earliest evidence for occupation of the region comes from archaeological assemblages that include fluted projectile points. In California, fluted points are often found in association with the former strand lines of ancient pluvial lakes and marshlands that were once resource rich, but are now arid and inhospitable. Fluted points have also been found associated with streams, springs, ponds, and river terraces, and even high elevation mountain passes. Sites in California that have yielded fluted points include Tulare Lake (Riddell and Olsen 1969), Borax Lake (Harrington 1948; Meighan and Haynes 1970), China Lake (Davis 1978), Ebbetts Pass (Davis and Shutler 1969), and Tracy Lake (Beck 1971), among others. In the far West archaeological sites with these diagnostic points suggest the people were highly mobile and practicing a broad-spectrum subsistence strategy.

Lower Archaic Period (10,550 – 7,550 B.P.)

The Lower Archaic Period was a time of rapid environmental change corresponding to the early Holocene. Rivers formed high in the Sierra Nevada carried enormous amounts of sediment, resulting in a period of rapid deposition on floodplains and alluvial fans. This aggradation capped older landforms and left a clear stratigraphic boundary of the event.

The Lower Archaic Period in the San Joaquin Valley is marked by the presence of large stemmed and concave-base projectile points, crescents, lanceolate points, and core tools. Sites dating to this period are typically isolated and found in association with ancient lakes that were once common in the far west in the early Holocene. In the San Joaquin Valley, this period saw the emergence of a cultural tradition which was adapted to the wetland environments of Tulare and Buena Vista Lakes (Fredrickson and Grossman 1977). The paucity of early Holocene sites regionally may be attributed to the rapid sedimentation of the valley that has occurred throughout the Holocene epoch (Moratto 1984). Other significant localities in California include Silver Lake and Soda Lake Playas (Campbell et al. 1937), the San Dieguito River (Warren 1967), Clear Lake (Kaufman 1978; King and Berg 1973) and Burns Valley (Weber 1978).

Archaeological evidence suggests that people practiced a high degree of residential mobility during the Lower Archaic, accessing a wide range of habitats and resources (Willig and Aikens 1988). This interpretation is supported by the presence of exotic raw materials in tool assemblages and the technological organization recorded in the tools.

Middle Archaic Period (7,550 – 2,550 B.P.)

The Middle Archaic Period in central California is marked by the onset of a warm and dry period. Tulare and Buena Vista lakes shrank during this time due to less run off and a hot climate. To the north the Delta grew as rising sea levels pushed the tidal waters deeper into the Central Valley. Following another period of rapid deposition in the early part of the period the environment stabilized.

The handful of sites attributed to the early portion of the Middle Archaic in central California occur along the valley's margin, where it meets the Sierra foothills, within the Delta, and in the Diablo range. Occupations of the Farmington Complex, Clarks Flat sites, and Sky Rocket sites have been attributed to the Middle Holocene (Riddell 1949; Treganza 1952; Milliken 1997). Assemblages from these sites are dominated by stemmed points, points resembling Pinto series, and formal flake tools.

The later portion of the period is better represented in the archaeological record. According to Rosenthal et al. (2007:153), "The late Middle Archaic record reveals a distinct adaptive pattern reflecting the emergence of logistically organized subsistence practices and increasing residential stability along river corridors of the Sacramento and San Joaquin Valleys." Fishing likely grew in importance as indicated by the appearance of gorge hooks, composite bone hooks, spears, and abundant fish bone in archaeological deposits.

New artifact forms appear including baked clay objects, basketry awls, and basic pottery. Inter-regional trade was well established during the Middle Archaic period. Long distance trade brought Olivella shell beads and Haliotis ornaments from coastal regions, as well as obsidian from east of the Sierra crest into the San Joaquin Valley.

Upper Archaic Period (2,550 – 850 B.P.)

During the Upper Archaic Period, regional cultural traditions and sequences emerged throughout the San Joaquin Valley, Sierra Foothills, and Coast Range areas. This period benefited from late environmental Holocene conditions with a relatively cool, wet, and stable climate. Regional expressions of culture developed and are evident in the archaeological record marked by specific burial postures, artifact styles, and diversifying material culture. The shell bead and obsidian trade continued, and many large villages and satellite settlements were established.

Roughly 30 miles northwest of Clovis is Eastman Lake (Buchanan Dam) on the Chowchilla River, one of the most intensively studied areas in the Central Sierran Foothill region. While the archaeological investigations there are somewhat dated, they remain an enduring framework for interpreting archaeological assemblages in the region. In four seasons of archaeological fieldwork between 1967 and 1970, T.F. King and M.J. Moratto excavated several sites (including CA-MAD-106, -107, -117, and -159) and tested 23 others (Moratto 1984: 315-327). These studies resulted in the documentation of some 20,000 artifacts, 140 burials, and 92 structural features. Moratto (1972) synthesized the abundant data, including temporal control provided by stratigraphy, cross dating, seriation of grave and house pits, and thirteen radiocarbon dates, and defined three phases of Central Sierran Foothill prehistory: the Chowchilla Phase (2,300-1,700 B.P.), the Raymond Phase (1,700-500 B.P.), and The Madera Phase (500-150 B.P.).

The Chowchilla Phase is characterized by a few large main settlements located along the banks of the Chowchilla River. Large, socially complex populations exploited local resources that included a limited utilization of acorns. Artifacts indicative of this phase include large projectile points such as Sierra concave base points and triangular contracting-stem points indicating the use of atlatl and dart technology, cobble mortars, cylindrical pestles, millingstones, and fish bone spear tips. Ornamental artifacts include Olivella and Haliotis ornaments and beads. Burials are extended and semi-extended and are accompanied by numerous grave goods including ochre. Evidence of trade with the Great Basin and southwest California is well documented. Chowchilla Phase artifact assemblages are considered similar in nature assemblages attributed to the Crane Flat Phase in Yosemite and the Windmiller Pattern in the Central Valley (Moratto 1984:317).

The Raymond Phase is characterized by significantly smaller populations occupying older Chowchilla Phase sites. Acorn and seed resources emerge as the dominant subsistence strategy supported by hunting with little evidence of fishing. Artifacts from this period include Rosespring and Eastgate projectile points, bedrock mortars, cobble pestles, and the continued use of millingstones. Ornamental artifacts include Olivella beads. Burials are marked by stone cairns with tightly or loosely flexed interments and a few grave goods. Trade networks are not well represented, and violence appears to be common by pathologies on human remains (Moratto 1984:317).

Emergent Period (850 B.P.- historic)

The Emergent Period corresponds to the lifeways there were present at the time of Spanish contact with Yokuts in Central California. It was a time that witnessed the emergence of greater social complexity while some of the technologies and practices of the Archaic traditions were shed. Burials show more diversity in posture and grave offerings. Settlements host semi-sedentary populations, which are focused on

streams, rivers, and sloughs. The hallmark technological change during this period is the introduction of the bow and arrow between roughly 900 – 650 B.P.

Acorns are now exploited and intensively supported by a broad spectrum of animal and vegetable resources such as small mammals and fowl. Bedrock mortars become abundant during this phase. The bow and arrow continue to be used and projectile points are represented by the smaller Desert Side-Notched and Cottonwood series. Ornamental artifacts include the development of an elaborate steatite industry of disc beads and pendants, bird bone tubular beads, and Olivella beads. Burials consist of flexed interments and cremations with a return to abundant grave goods. Evidence of trade includes Brown Ware pottery from southwest California, Olivella and Haliotis shell from the California coast, and obsidian from the east side of the Sierra (Moratto 1984:317).

The Madera Phase is the local manifestation of the Emergent Period. The phase is marked by the village community pattern of large main villages with expanded populations near the river with smaller settlements developing in outlying areas. Structural evidence includes oval to circular pit houses and semi-subterranean ceremonial structures of wattle and daub.

2.3 ETHNOGRAPHIC OVERVIEW

Prior to disruption of traditional lifeways during Euro-American settlement from disease, missionization, and violent displacement, the region surrounding the Study Area was occupied by Yokuts people. Though loosely connected through trade and marriage there was no Yokuts nation or overarching political unity. The distinctions between subgroups were mostly linguistic and territorial (Spier 1978:471; Wallace 1978a:462). Tribelets occupied semi-permanent village sites with smaller seasonal/temporary camps scattered throughout the territory incorporated into a seasonal round. The Yokuts are part of the California Penutian language family and linguistically related to the Miwok, Ohlone, Maiduan, and Wintuan tribes (Sliverstein 1978).

2.3.1 Yokuts

Primary sources for the Yokuts are relatively few and many draw from the accounts of missionaries, Spanish military, and trappers during the Spanish and Mexican periods. The information in this section is derived primarily from Cook (1955), Latta (1977), Silverstein (1978), Spier (1978), and Wallace (1978a and b). Additional sources on Yokuts ethnography include Barter (1987), Cummins (1978), Gayton (1929, 1945, 1948), Gifford (1926), Kroeber (1906, 1907, 1925, 1959), Latta (1977), Powers (1877), and Stewart (1906 and 1908).

The vicinity of Clovis lies at the intersection of three groups of Penutian-speaking Yokuts: Northern Valley, Southern Valley, and Foothill Yokuts. The Yokuts occupied an area extending from the Calaveras River in the north, to the Tehachapi Foothills in the south, and from the west side of the Coastal Range in the west, to the foothills of the Sierra Nevada in the east. Yokuts populations are divided into three basic geographic regions: Northern Valley, Southern Valley, and Foothill. Foothill Yokuts bands in proximity to the Study Area include the *Gashowu* band, who occupied the environs around the upper Little Dry Creek and Big Dry Creek watersheds, and the *Choynimni* who lived along the Kings River below what is now Pine Flat Reservoir (Spier 1978). The most proximate Southern Valley Yokuts villages are reported as *Musahau* and *Apyachi*, occupied by the *Wechihit* and *Wewayo* bands, respectively (Wallace 1978a).

Northern Valley Yokuts bands occupied lands primarily north of the San Joaquin River, although the *Wakichi* and *Pitkachi* bands ranged south of the river (Wallace 1978a). The Northern Valley Yokuts were comprised of a group of numerous tribelets that occupied the northern San Joaquin Valley from Friant on the southeast to Stockton on the north. They occupied the width of the valley on both sides of the river (Spier 1978:471; Wallace 1978:462).

The individual Yokuts tribes maintained connections with each other and with neighboring Miwok, Monache, Salinan, and Ohlone groups through trade, travel, assemblies and ceremonies, visiting, excursions for resource exploitation, and marriage (Wallace 1978; Spier 1978). Yokuts played a pivotal role in regional and trans-Sierran trade generally conducted with acorns moving eastward into Nevada, and pine nuts, obsidian, and rabbit skins moving west. Settlements were typically situated on top of low mounds along major watercourses, positioned to weather spring floods. Groups set out from principal villages to hunt and gather, whilethe aged typical remained behind (Wallace 1978).

Yokuts families lived in a semi-sedentary life way prior to Spanish colonization, which included seasonal movements by the young and able. Summer camps at higher elevations consisted of small temporary shelters or windbreaks constructed with willow, tule, or other local materials. Family groups came together in larger camps during the winter season, and these camps were often located near food and water resources. Winter houses were typically semi-subterranean, cone-shaped structures, approximately 10 to 15 feet in diameter, supported with posts, and covered with tule or grass thatch. Villages often consisted of 12 to 15 small family houses and an earth-covered sweat house or other ceremonial structure.

Hunting, fishing, and gathering of plant foods comprised the subsistence strategy of the Yokuts. Seasonal movements occurred to take advantage of ripening acorns and seeds. Deer were the primary game staple, hunted by stalking in disguise, driving into ambush, tracking, or trapping with a spring-pole device that caught the animal by the leg. Animals were dispatched by the bow and arrow (Spier 1978). Ground squirrels and rabbits were commonly smoked from their holes or pulled out by twisting long flexible sticks into their fur.

Acorns and pine nuts, after gathering, were stored in elevated granaries located near the dwellings. Manzanita berries were mashed and strained with water to create a beverage. Insects, grubs, seeds, and roots were also eaten, and honey was favored when it could be found (Spier 1978).

Obsidian was the principal material used for making stone tools, particularly for knives, scrapers, and projectile points. Bows were fashioned from California laurel or juniper wood. Steatite was a common material used in the making of cooking vessels. Yokuts basketry was similar to that of the Monache, and twined cooking baskets were commonly found among both groups (Spier 1978). Woven textiles were not locally made.

After 1770, Spanish raids sought to bring Yokuts to coastal mission sites, causing great disruptions both in settlement patterns and population of the native Californians. Exposure to illnesses brought by the Spaniards, the Mexicans, and later the Americans, led to significant attrition rates due to diseases for which they had little or no immunity (Erlandson and Bartoy 1996). The most significant impact came from the epidemic of 1833 (most likely malaria), which claimed an estimated 75% of the Central Valley's native inhabitants by 1846 (Moratto 1984). The Yokuts resisted the mission system, defended their land from 49ers, and fought early attempts to sequester them to reservations. Today state and federally recognized

Yokuts bands include the Table Mountain Rancheria, Tule River Reservation, North Valley Yokuts Tribe, Santa Rosa Rancheria Tachi Yokut Tribe, and Northern Yokuts Tribe.

2.4 HISTORIC CONTEXT

2.4.1 Spanish Colonization

Following the settlement of San Diego in 1769, the Spanish made steady progress in the exploration and settlement of the coastal regions of Alta California. The Central Valley and the Sierra Nevada, however, remained largely uncharted. Spaniards made occasional forays into the upper San Joaquin Valley in pursuit of natives who had fled the forced labor imposed on them at coastal missions. Between 1772 and 1828 the Spanish made numerous trips from the south and west prospecting for new mission sites, attempting to recover stolen horses and cattle, or making punitive raids on the local natives believed responsible for the theft of livestock.

Among the earliest Spaniards in the Valley was Pedro Fages, who left San Diego in 1772 with friar Juan Crespí to blaze a new trail to the mission lands in the north. The route took the men over Tejon Pass and into the southern San Joaquin Valley before turning west into the coast ranges to reach San Luis Obispo. A point where Fages party passed is now marked by California Historical Landmark number 291 in Kern County. Fages' incursions sometimes encountered resistance from the local populations, including the Yokuts and others in the San Joaquin Valley.

Along the San Joaquin River early accounts are relatively rare. The dense tulares and sloughs of western Fresno and Madera counties, as well as the dry, sandy washes in the area, made exploration by early Spanish expeditions difficult. Spanish Lieutenant Gabriel Moraga made forays into the Central Valley around 1800 and is credited for naming the San Joaquin River in homage to Saint Joachim. In 1806 Moraga led an expedition along the San Joaquin River and encountered a Northern Yokuts village on the south side of the river inhabited by the *Pitkachi* band. Between 1821 and 1831, approximately 223 Pitkachi were baptized at Mission Soledad (Cook 1955).

By the early 19th century, the various Yokuts bands were resisting the mission system and colonization. Over time they grew skilled at taking horses which became an important food source (Beck and Haase 1974). Horses were taken from interior coastal lands and driven east to the Sierra foothills, often prompting raids and reprisals from Spanish soldiers and later by Californios.

2.4.2 Mexican Period

After 1820, Spain's control over California grew ever more tenuous. Spain initiated secularization of California missions in 1813, and formally declared secularization in 1821 (Caughey 1940). That same year, Mexican forces prevailed in their struggle for independence from Spain and declared California part of the Mexican empire. This event marked the beginning of the short-lived Mexican Period in California history.

In 1826 Jose Pico set out from San Juan Bautista to capture run away neophytes. He and his men attacked a village on the north side of the San Joaquin River (Hoyima band of Northern Yokuts), noting that "40 gentiles and one Christian" were captured. Sergeant Sebastian Rodriguez led a group of men 1828 in

pursuit of stolen horses and encountered three villages between the San Joaquin and Fresno rivers attributed to the Hoyima. They found roughly 100 recently slaughtered horses and an equal number wandering the nearby lands (Cook 1955).

Beginning in 1833, the Mexican governors in Alta California granted large land holdings, formerly mission lands, to native and naturalized Mexican citizens. Two such land grants were created in what is now Fresno County: Laguna de Tache (1846) and Sanjon de Santa Rita (1841). The former was located on the north bank of the Kings River, running from present day Kingsburg to just beyond Riverdale. The latter land grant was situated along the middle reach of the San Joaquin River. Only a small portion of the Sanjon de Santa Rita land grant lay inside of modern Fresno County, with the vast majority lying in Merced County north of Dos Palos (Shumway 1998).

New comers to the interior of California spread in the decades after Jedediah Smith blazed an overland trail in 1826. With Smith's opening a route to the interior of California, additional trappers and pioneers ventured into California's interior. The Hudson's Bay Trading Company soon entered, following the Siskiyou Trail from their outpost at Fort Vancouver. These early fur traders likely introduced malaria into the Central Valley in 1833, resulting in an epidemic that killed tens of thousands of native people by 1846 (Hurtado 1988). Disease spread rapidly into the foothills and significantly affected local indigenous people. Subsequent Euroamerican settlement of the region was enabled, in large part, by the introduction of exotic diseases that decimated the native populations of California. By the spring of 1844, John C. Fremont led the first American Expedition across what would become Fresno County (Hoover et al. 1990).

While much what is now Fresno County would remain largely bereft of non-Natives through the Spanish and Mexican periods, Pueblo de las Juntas was a notable exception. Located at the confluence of Fresno Slough and the San Joaquin River near present-day Mendota, Pueblo de las Juntas was among the earliest settlements in the San Joaquin Valley. While its precise origins are lost to history, the pueblo grew at the common meeting spot for Spaniards and Californios venturing into the San Joaquin Valley (Latta 1932). By 1870 the settlement had grown to a community of approximately 250 people. Sometimes referred to as "Fresno", the town was a stop on the Butterflied Overland Stage route and home to many Californio families. The settlement gained notoriety for its association with the outlaw Joaquin Murrieta and a perceived lawlessness.

2.4.3 American Period

The Bear Flag Revolt was a pivotal event in California's history, marking the beginning of the American period in California. It took place in June 1846, during the Mexican-American War, when California was still part of Mexican territory. Tensions between American settlers and Mexican authorities had been rising, and a group of about 30 American settlers, led by William B. Ide, sought to assert their independence.

The settlers, adopting a homemade flag with a bear and a star, declared the short-lived California Republic. They captured the Mexican commandant, Mariano Vallejo, and raised the Bear Flag over the Sonoma Barracks, symbolizing their revolt against Mexican authority. This marked the onset of the Bear Flag Revolt, which lasted only a few weeks.

Shortly after the revolt, American forces under the command of John C. Fremont arrived in California. They supported the American settlers and helped solidify their control over the region. The Bear Flag

Revolt, though relatively brief, played a crucial role in California's transition to American control. With the signing of the Treaty of Guadalupe Hidalgo in 1848, California was officially ceded to the United States.

In the summer of 1847 John Sutter hired carpenter James Marshall to build a sawmill on the American River at Coloma on land purchased from the local Nisenan band with clothing, flour, and trinkets (Holden 1988:110). By January 1848 the mill was nearly complete, with Marshall and his crew making final adjustments to the tail race before it became fully operational. In the course of deepening the tail race channel which funneled water back to the river, Marshall discovered placer gold nuggets and set off a chain of events that would change California and the West irrevocably. Word of the discovery spread quickly and by the fall of 1848 gold seekers began to trickle into this veritable wilderness. By 1849 the trickle of emigrants had surged into a full-blown rush with thousands of miners pouring in from all over the world. The ensuing California Gold Rush further fueled the decline of indigenous people throughout the state. As thousands of emigrants came to California, the native people were overwhelmed, displaced, abused, and murdered. Newcomers from around the world transformed the region's demographics and economy. This period of rapid growth and migration paved the way for California's admission to the Union as the 31st state on September 9, 1850.

During the early American period in Fresno County's history, several settlements were established as pioneers and settlers moved into the region. Notable early American period settlements in Fresno County included Pueblo de las Juntas, Friant, Fresno City, Millerton, Fort Miller, and Fresno.

During the 1850s and 1860s, the primary routes to pass through Fresno County in a north/south direction was Millerton Road, also known as the Stockton-Los Angeles Road, which ran along the Sierra foothills passing through the nearby town of Friant. Far to the west, the El Camino Viejo, or Los Angeles Trail, followed the Native American route which hugged the western edge of the entire San Joaquin Valley (Hoover et al. 1990).

The influx of Euro-American settlement in the area stirred hostilities with the indigenous Native American tribes, which ultimately resulted in a conflict known as the Mariposa Indian War (1850). The newly formed state commissioned John Savage, among others, to pacify the local Native Americans. In the course of carrying out his campaign, Savage and his men joined an exclusive list of non-Native people to enter Yosemite Valley (Beck and Haase 1974). The bloody dispute was settled in 1851 by treaty. The Federal government had established Camp Miller that same year along the south side of the San Joaquin River in what would become Fresno County. Initially called Camp Barbour, the outpost was tasked with negotiating treaties with the local Native Americans. Two reservations were established by treaty, one in Fresno County at Camp (or Fort) Miller and the other in Madera County. On the Madera side the site known as Adobe Ranch served as the short-lived Fresno Indian Reservation, which lies roughly 9 miles north of the Study Area. Camp Miller was abandoned in 1858, reoccupied in 1863, and permanently abandoned in 1864 (Vandor 1919: 22).

The nearby town of Millerton (now inundated) was an early mining camp established in 1850, which thrived in the early years of the Gold Rush and during the periods the Camp Miller was occupied (Hoover et al. 1990:88). As gold mining on the San Joaquin faded, Millerton’s focus shifted to agriculture and eventually became the first county seat of Fresno County in 1856.

Friant began as a ferry crossing on the San Joaquin along the along the Stockton - Los Angeles road around 1854. The ferry was owned by Charles Converse and W. Worland and operated by Converse (Byrd et al. 2009). The business and surrounding property was bought by James Jones in 1868, who built a hotel and store on the north side of the river crossing. The primary settlement shifted to the south side of the river and renamed Hamptonville in the 1880s when William Hampton assumed ownership and further developed the settlement. Lumbering and gravel mining would come to dominate economic pursuits.

Fresno was established as a rail station along the so-called Sunset Route of Central Pacific in 1872. Leland Stanford selected the location after touring the area and being impressed with the fertility of soil once irrigated. The location selected was in an area known as the Sinks of Dry Creek, being a low-lying basin between the two major rivers where surface waters sank into the ground (Eaton 1965). Construction of the route began in late 1869, which branched off the transcontinental line at Lathrop, traverse more than 200 miles south, and eventually up and through the Tehachapi Mountains (Heath 1945). Around the same time, construction of irrigation canals would bring many additional agricultural products to market beyond the traditional cattle and wheat raised without irrigation. Fresno became the county seat in 1874, displacing Millerton (Hoover et al. 1990).

2.4.4 Town of Clovis

The town of Clovis got its start as a planned depot on the speculative San Joaquin Valley Railroad in 1891. A railroad promoter from Detroit, Marcus Pollasky, settled in Fresno and set to work raising capital for the proposed railroad that would connect the Southern (formerly Central) Pacific line in Fresno to the Sierra Nevada in order to access plentiful timber and mineral resources. Pollasky had a knack for promotion, and newspapers from Los Angeles to San Francisco printed his vision for the new rail line. Soon he raised local capital and incorporated the San Joaquin Valley Railroad with Pollasky serving as President in January 1891. Work to lay track soon began on the first stretch from Fresno to Hamptonville (now Friant). Right of way through what is now Clovis was acquired from local farmers Clovis Cole and George Owen. A depot was constructed on the west side of the tracks and named for Clovis Cole. It is speculated that Pollasky was secretly promoting the interests of Southern Pacific with the intent of preventing another trans-Sierran railroad that could compete with the Donner Pass route. The apparent plan was to exhaust local capital through land acquisition and the construction of the line. The railroad never made it past Hamptonville (aka Pollasky, Friant), but was ultimately taken over by Southern Pacific and did serve as an important link connecting Clovis to the growing California market for milled lumber.

The extension of a flume from Shaver Lake in 1893 solidified the foundation of the nascent community, delivering two important raw materials: water and timber. The Fresno Flume and Irrigation Company constructed a v-shaped flume from Shaver to Clovis in 1893 - 1894. The venture was started by Charles B. Shaver and C.B. Swift, who built a dam on Stevenson Creek to form Shaver Lake and built two sawmills to exploit the plentiful, virgin timber (Calisphere 2023; Vandor 1919). The flume traversed roughly 41 miles and terminated at the planing mill located at what is now Fifth Street and Clovis Ave. (Treffers and Dietler 2012). The company built a finishing plant that included a planing mill, dry kilns and a box factory adjacent to the newly constructed San Joaquin Valley Railroad.

As described by Treffers and Dietler (2012), the community of Clovis soon sprang to life:

> *"A number of businesses, churches, and schools soon developed in response to the increasing population and by 1895, the community had its first post office (Durham 1998). Following the arrival of Italian immigrants, grape production began in Clovis as the new residents started the first vineyards in the region (Smith 2004:545). Clovis incorporated in 1912 and grew modestly into the twentieth century, with its economy continuing to rely primarily on agriculture. An unprecedented demand for canned food occurred with the onset of World War I, stimulating the local economy and growth within the city. As evidence of the city's changing status, the Clovis high school was relocated to an ornate, Spanish-designed building in 1920."* (Treffers and Dietler 2012:17)

2.4.5 Water Development and Agriculture In Fresno County

Early Years

The earliest water developments in central California served to bring water to mines in the pursuit of gold. Mining operations in what is now Fresno County were very modest compared to the Mother Lode districts to the north. Mines in the county included the Big Dry Creek District, Temperance Flat, Big Creek District, Friant District, and Rootville (Gudde and Gudde 1975). While many water storage features and delivery conveyances in gold mining regions of California were eventually repurposed for agriculture, the early water systems in Fresno County largely were purpose built for farming.

Early agriculture in Fresno County and the broader San Joaquin Valley focused on cattle ranching and dry land wheat farming, which required little to no irrigation (JRP and Caltrans 2000). A series of droughts, local water shortages, and population growth in the 1860s sparked greater interest in developing costly irrigation systems. Irrigated farmland in California would grow sharply in the following decades, expanding from 60,000 acres of irrigated farmland in 1860 to roughly 400,000 acres in 1880. Nearly half of those irrigated acres in 1880 were located in the San Joaquin Valley. The seasonal flows of the Kings and San Joaquin Rivers would be tapped and regulated to irrigate San Joaquin Valley farmland.

The large sums of capital required to build and maintain water conveyance systems in California fostered development of entities to pool resources and risk. The arrangements included private water companies, land colonies, mutual water companies, and irrigation districts. The 1870s saw many regional water companies incorporate to build canals on a large scale. The same companies often sold land that was newly irrigated at a significant premium. **Figures 4** through **8** below are historic maps that depict the various water conveyances discussed.

Among the earliest irrigation companies in the region was the Centerville Canal and Irrigation Company, established at a riverbank community on the Kings River. By adding a head gate and clearing a natural channel, the cooperating landowners established a reliable source of irrigation. Construction of Sweem's Ditch followed in 1869 to power a grist mill north of Centerville. But these small-scale efforts would soon be overshadowed by land barons and groups of speculators that sought to inflate land values around Fresno by bringing water to the parched plain. These early irrigation features would be incorporated into broader systems to come.

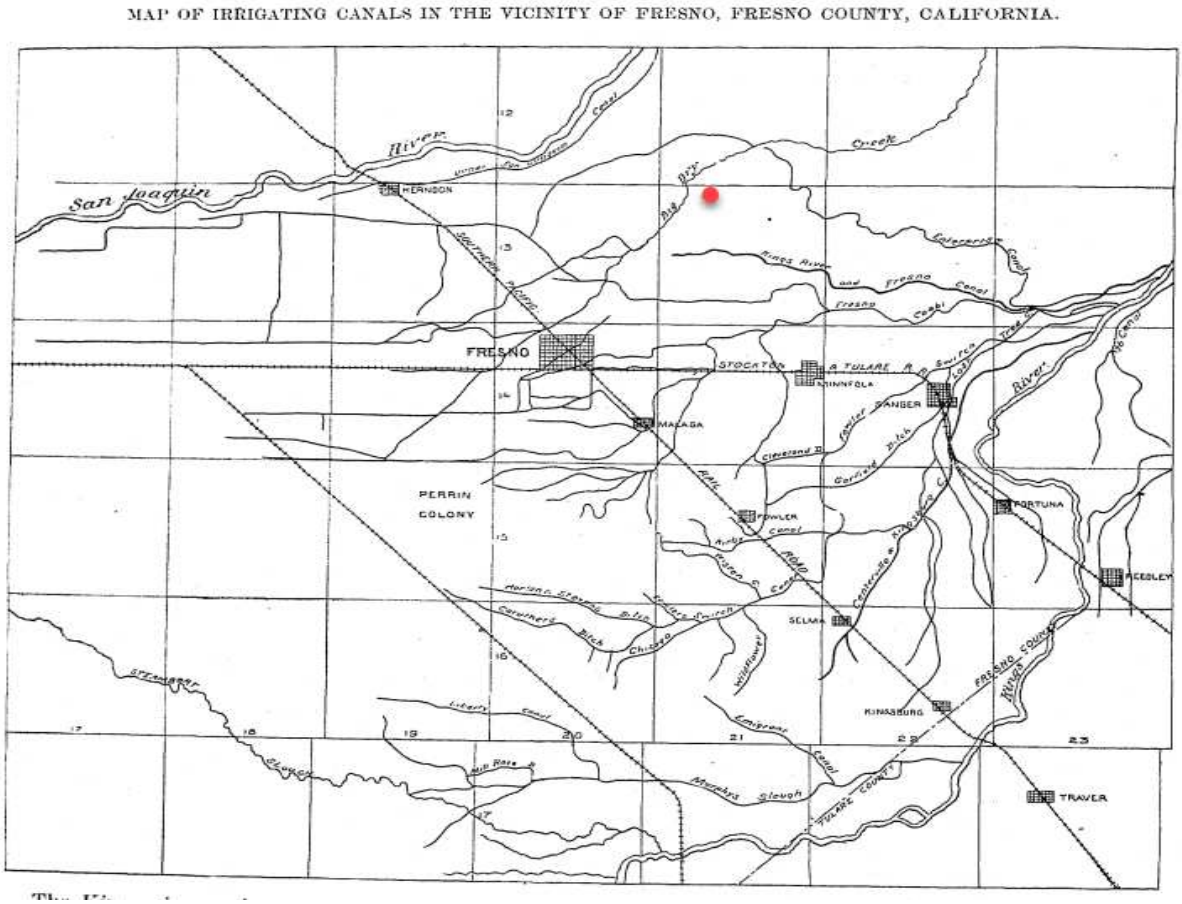


Figure 4: 1894 Department of Interior map depicting regional canals in relation to Proposed Project (red dot).

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In 1870, local pioneer A.Y. Easterby sought to bring water to his acres east of contemporary Fresno and commissioned Moses Church to construct the initial segment of the Fresno Canal (McFarland 2020). The Fresno Canal and Irrigation Company (FCIC) was formed in response and endeavored to build on the early success of the Centerville and Sweem's ditches. The headworks on the Kings River incorporated and widened the Sweem's Ditch as the intake. The system built by Church would incorporate a series of cuts, levees, the bed of Fancher Creek, and natural sloughs along its length (USGS 1898). It would evolve to incorporate the Centerville Ditch and add numerous branches and laterals. Completed in 1872, the canal demonstrated the fertility of the Fresno Plains, which proved decisive in Southern Pacific's decision to site a depot at Fresno (JRP and Caltrans 2000).

The Kings River & Fresno Canal (KRFC) began construction in 1872, backed by L.A. Gould, as a competitor to the FCIC. This canal drew water from the north side of the Kings River just above the Fresno Canal intake. The intake was simple, being a natural channel of the river that was diverted. The canal used a series of open cuts and intermittent stream channels, and flumes at drainage crossings. The canal flowed west from the Kings River then branched south to farms north of Fresno. The system incorporated the Enterprise and Gould ditches to deliver water.

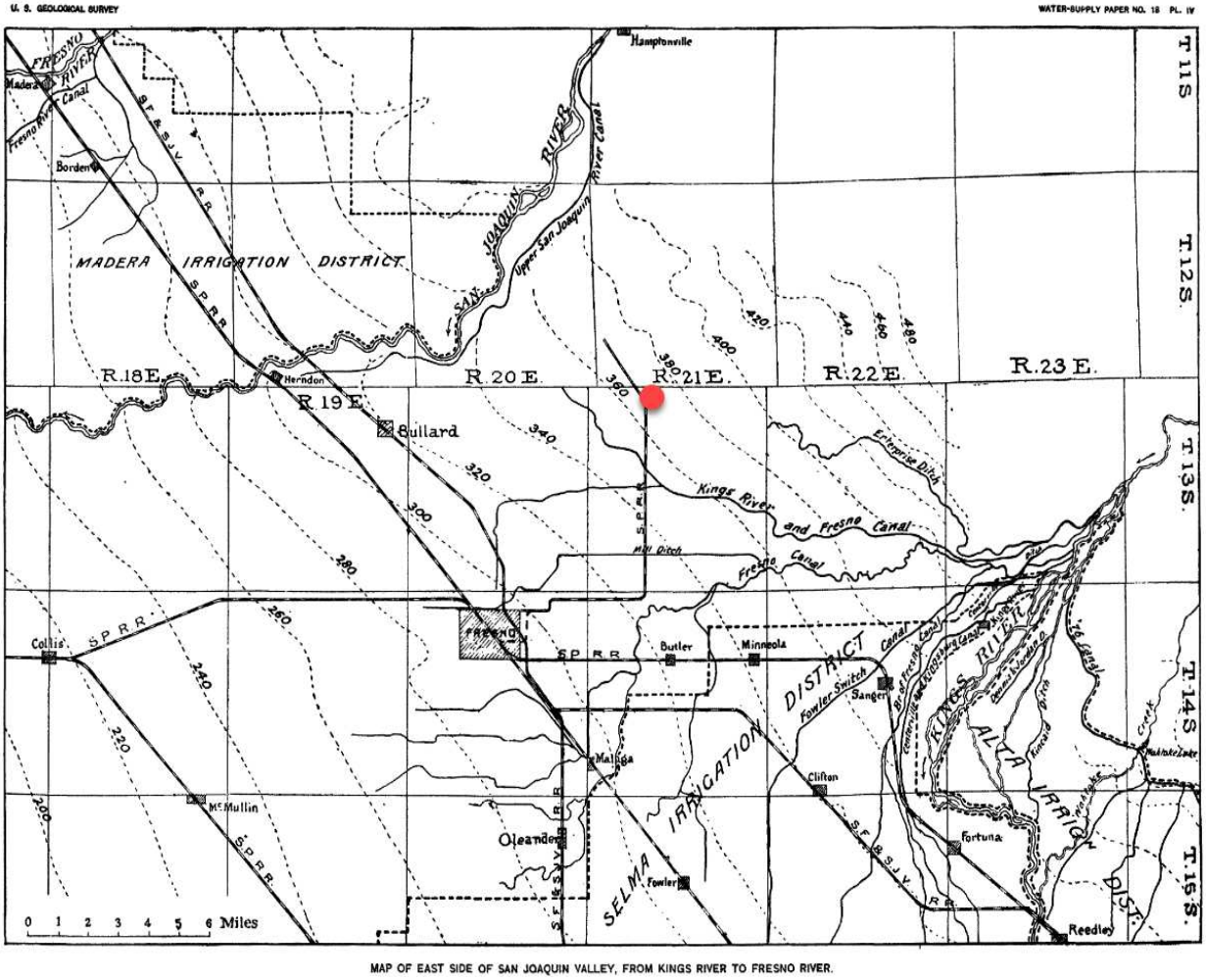

Figure 5: 1898 USGS Map of East Side of San Joaquin Valley, From Kings River to Fresno River overlain with Proposed Project (red dot).

The Enterprise Ditch (later Canal) formed an important foundation for irrigation near Clovis. According to the Bureau of Reclamation, "The Enterprise Canal Company was constructed between 1870 and 1880 to deliver water from the Kings River to previously non-irrigated land in an area now located in northern Fresno and further west. The Enterprise Canal is 28 miles long and delivers surface water to the City of Fresno water treatment plant, irrigation water, and is also utilized for the disposal of storm water (BOR 2009:16)."

An 1898 report compiled by the US Geological Survey describes the Enterprise as follows, "The Enterprise Ditch… received water for a time from the main canal at the point where its waters are dropped into Kip Slough, and takes a westerly course along the base of the north-side foothills. Bounding the point of these about 2 1/2 miles north of Centerville, its course is northerly for 4 miles, thence westerly about 8 miles, generally 3 to 4 miles north of the main canal (USGS 1898:43)."

Ultimately the KRFC Company lost its water rights litigation with the FCIC (1885) and was subsumed into the latter (JRP and Caltrans 2000). McFarland describes the outcome of the years-long dispute: "A good deal of legal conflict existed between the Church and Gould systems until 1885. Then, a lengthy court case concluded. The Fresno Canal and Irrigation Company purchased the Gould Canal and, soon after, the Enterprise. With that, Church controlled essentially all the primary canal distribution system now serving the Fresno Irrigation District (McFarland 2020:13)."

Despite the acquisition, the KRFC and Enterprise Canal Company continued to exist as a corporate entity on paper for a time, but were controlled by Church and the FCIC (Barnes 1918:15). This trend towards consolidation is a hallmark of California water development and regional irrigation systems, which required large sums of money to prevail in litigation over water rights and to construct/maintain the infrastructure.

Moses Church, known locally as "father of Fresno irrigation", would run the FCIC for a decade and a half, all the while embroiled in legal disputes over water rights. Church eventually sold the FCIC in 1887 to an agricultural speculator and developer, Dr. E.B. Perrin (McFarland 2020:17). Perrin sought an end-run around the water rights disputes by purchasing the Rancho Laguna de Tache land grant, a sprawling ranch on the west bank of the Kings River. Perrin's gamble was paying off, but at great cost just as the country was headed into an economic depression. Control of the company passed to L.A. Nares in 1894, who set out to tamp down the legal turbulence. As McFarland describes, "...[Nares] brought the senior Kings River diverters together to frame and adopt the river's first water flow entitlement schedule. This agreement included only the Fresno company and three lower river firms in Kings County, Peoples Ditch Company, Last Chance Water Ditch Company and Lower Kings River Ditch [now Lemoore] Company, as well as a small but constant Laguna Grant supply (McFarland 2020:17)." Nares strategic leadership resulted in the steady consolidation of irrigation in Fresno County and would set the stage for next phase of governance over the system.

Land Colonies

Newly irrigated lands around Fresno attracted newcomers ready to work the land. Land colonies were communities formed around irrigation and small-scale agriculture. Early in the history of the state, land colonies had the character of communes, with people of similar religious and/or ethnic backgrounds. In Fresno County, colonies were more akin to agricultural subdivisions, served by the colony ditch system with the infrastructure owned by the water company. Such colonies were developed by speculators to offer small scale agricultural plots with irrigation water without the communal aspects (JRP and Caltrans 2000). The earliest colony in the Fresno region was the Central California Colony covering 4,000 acres. The subdivision established 20-acre lots south of Fresno, offered by Bernard Marks and William Chapman (McFarland 2020:11).

Colonies served as a catalyst for settlement of the parched plains, with farmers initially growing wheat but soon diversified crops to include grapes and orchards. While the current project area was not located within a land colony, several were present located to the south including the Scandinavian Colony, Wolters Colony, Gould Ranch, Nevada Colony, Temperance Colony, Fresno Colony, and Union Colony. There would eventually be more than 20 significant agricultural colonies in the county, "with over 800 miles of canals and over 2,000 miles in branches (JRP and Caltrans 2000:20)."

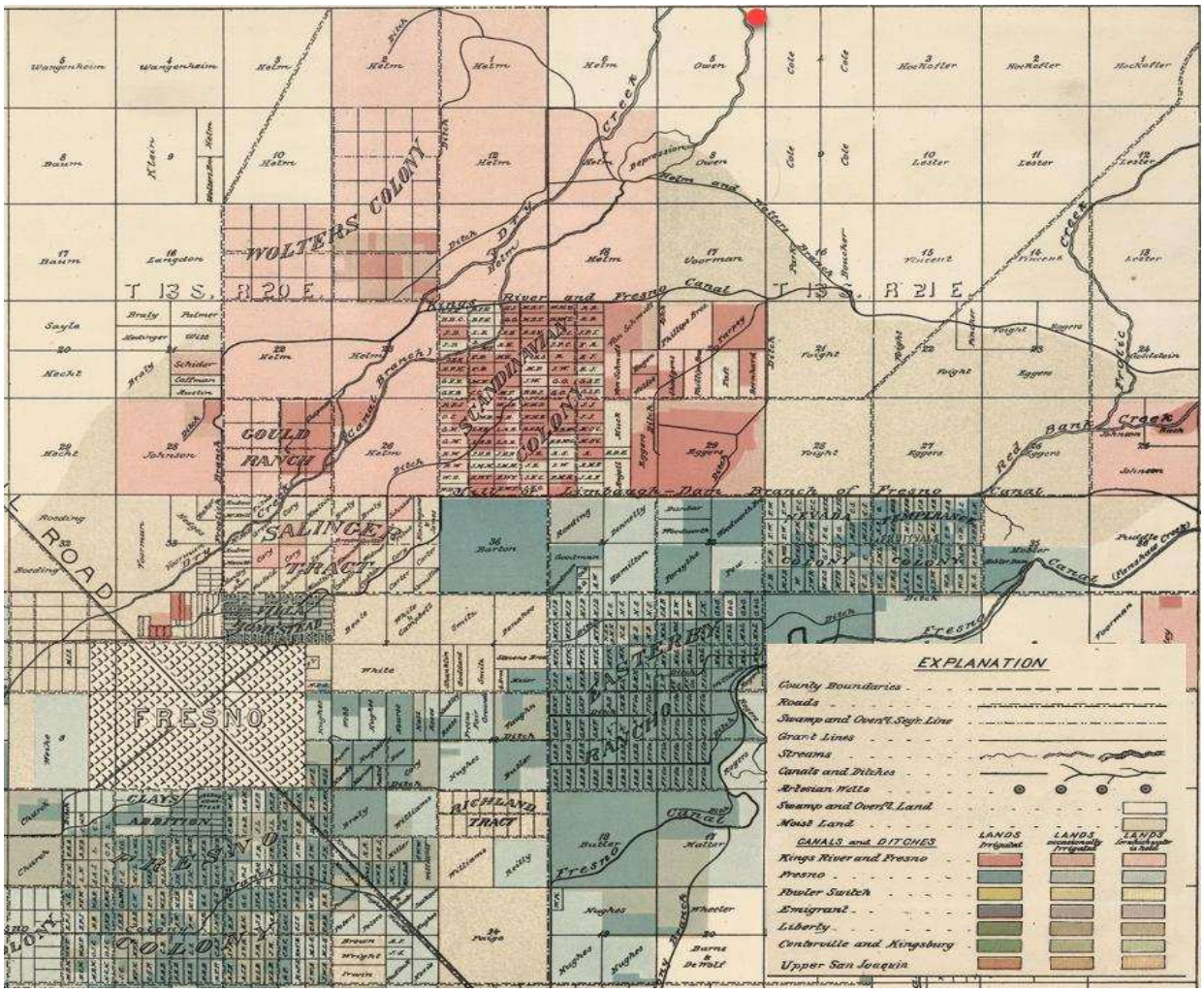

Figure 6: 1885 California State Engineering Department, Detail Irrigation Map Fresno Sheet, depicting irrigated land in relation to Proposed Project (red dot).

Clovis Ditch

The Clovis Ditch is a lateral from the Enterprise Canal running west from an intake near Herndon Ave. at North Locan Ave. in Clovis. The original open cut ditch ran approximately 2.6 miles to a point immediately east of N. Clovis Ave. Like many small, open cut lateral ditches off of main arteries in the distribution system, the precise age and origin are not firm. However, review of historic maps, newspaper archives,

and consulting FID suggest the initial segment was constructed circa 1903. Sometime between 1937 – 1946 the ditch was extended west of N. Clovis Ave. through the Study Area and continuing for another 1.7 miles before terminating at a channelized segment of Dry Creek. Despite the acquisition, the KRFC and Enterprise Canal Company continued to exist as a corporate entity on paper for a time, but were controlled by Church and the FCIC (Barnes 1918:15). This trend towards consolidation is a hallmark of California water development and regional irrigation systems, which required large sums of money to prevail in litigation over water rights and to construct/maintain the infrastructure. An 1885 map prepared by the California State Engineering Department (CSED), titled Detail Irrigation Map, Fresno Sheet, depicts the Study Area and greater Clovis area as not irrigated (CSED 1885). An 1894 monograph with maps based on 1890 census data depicts the Enterprise Canal extending to Big Dry Creek, thus available for irrigating the land (Newell 1894). However, the town of Clovis had not yet been established in 1890 and the area likely remained sparsely populated, thus making an eponymous ditch unlikely. An 1898 USGS map depicts the Enterprise Canal but omits any laterals from it (USGS 1898). Then, in late 1902, the Clovis Ditch Company is incorporated, as reported by the Secretary of State of the State of California (Secretary of State 1904).

News about the ditch is scant in local papers beyond announcements for stockholder meetings in Clovis and brief descriptions of active litigation (Fresno Morning Republican September 4, 1904). The Clovis Ditch Company was short lived, while the ditch itself persisted. By the end of 1905 the company had forfeited its right to operate in California (Secretary of State 1905). The ditch very likely came under the control of the FCIC until the formation of the Fresno Irrigation District in 1920.

The ditch initially extended from its intake at the Enterprise Canal on Herndon, then trended west to terminate at the intersection of what is now N. Clovis Ave. and Palo Alto Ave. as it remained until the late 1930s or early 1940s. Sometime between the 1937 – 1946 the ditch was extended west of N. Clovis Ave. and named West Branch Clovis Ditch where it passes through the Study Area. The area around the ditch, from beginning to end, has become highly urbanized. As a result, the vast majority of the ditch is now a buried pipeline with the exception of the segment between N. Clovis Ave. and the former Southern Pacific railroad tracks.

Fresno Irrigation District

Several early irrigation districts formed and failed following passage of the Wright Act in 1887. The act allowed the formation of public irrigation districts that could bond their property to raise capital to develop and maintain irrigation systems. Early attempts suffered from poor planning, unending litigation, and bad financial management (McFarland 2020). However, by 1915 the Fresno Canal and Land Corporation (formerly the Fresno Canal and Irrigation Company) monopoly and proposed rate hikes had sufficiently riled local farmers that the idea of public irrigation districts again gained interest. By the summer of 1919 petitions were circulating calling for the formation of a district. To many peoples' surprise, Nares and the Fresno Canal and Land Corporation's financial backers were in support of the formation of a district as an opportunity to cash out.

In March of 1920 a petition signed by nearly 800 landowners was presented to the Fresno County Board of Supervisors who then set an election for the citizens of the County to decide the district's fate. By a margin of nearly 8:1, voters approved the formation of the Fresno Irrigation District (FID). After raising nearly $1.75 million through the sale of bonds, the FID acquired the water infrastructure and water rights

from the Fresno Canal and Land Corporation in the spring of 1921. The physical assets included approximately 800 miles of canals and distribution works, most of which were constructed between 1850 and 1880.

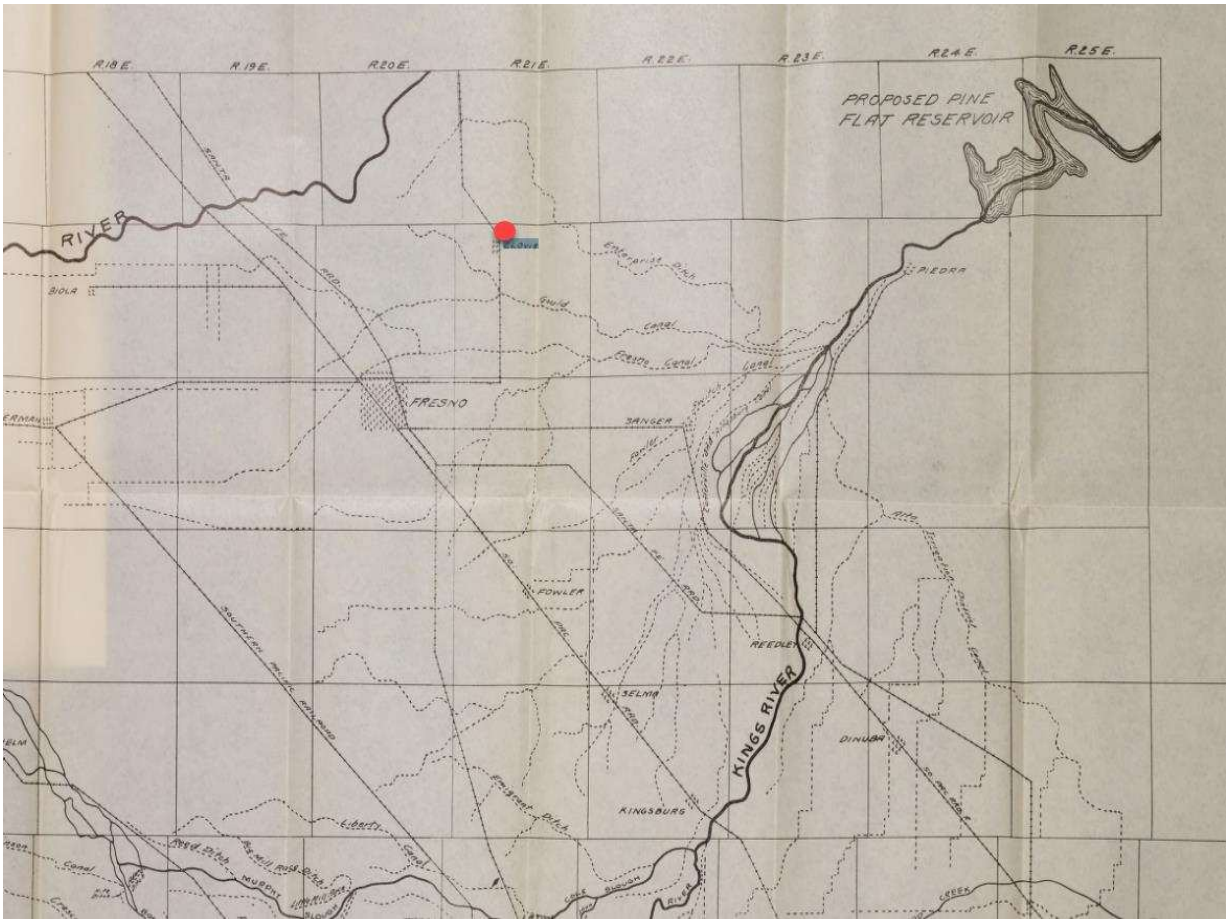

Figure 7: 1918 Department of the Interior, Kings River Irrigation Map depicting regional canals in relation to Proposed Project (red dot).

The FID quickly turned to making improvements to the system. As McFarland notes, "Work was started in the fall of 1921 to improve a canal system filled with old wooden structures. Hundreds were considered unsafe. Most, including headworks of the Fresno and Gould canals, were inadequate. Top priority was given to replacing the dilapidated wooden structures with concrete construction. The surge of work continued for five years as assessment revenue became available, adding up to $438,817 worth of projects. The two system headgates were replaced. More than 5,000 grower turnouts from canals and laterals were built. Later efforts were aimed at resolving seepage problems (McFarland 2020:25)."

With the irrigation infrastructure secure, over time attention turned to the need for greater water storage and the ability to attenuate floodwaters. Major floods in 1925 and 1938 refocused the district's attention and in 1940s the Big Dry Creek Reservoir and Diversion Project was constructed with funds earmarked by Congress. After approval by Congress in 1941 it took seven years to finally be completed in 1948.

The FID recently celebrated 100 years of service to Fresno County. The system has evolved, but still relies on the Fresno Canal Headworks on the Kings River, to deliver water. For over 150 years the Fresno Canal has provided the backbone of the region's irrigated agriculture, consumptive uses, and ground water recharge. The modern FID system includes approximately 325 miles of canals and ditches for water delivery. According to FID, "the majority of these earthen channels were constructed by the Fresno Canal and Irrigation Company long before the formation of FID in 1920. FID acquired these earthen channels, which provide for both water delivery & natural groundwater recharge." In addition to earthen channels, FID maintains another 355 miles of subsurface pipelines that have been converted from open cut conveyances in response to urban development (McFarland 2020).

While FID could contribute to flood control as demonstrated by the Big Dry Creek Reservoir and Diversion Project, the demands of the problem were beyond its mandate. Significant flooding during the 1955 – 1956 season precipitated Fresno Metropolitan Flood Control District (FMFCD) formation in 1956. Within five years the new district constructed a detention reservoir with Redbank Dam and continued making improvements through the 1990s in cooperation with the US Army Corps of Engineers (McFarland 2020).

Water storage and delivery in the pre-World War II (WWII) era paved the way for the growth of small-scale agriculture in Fresno County, by subdividing very large plots of land, often amassed by speculators and bankers. A number of conditions converged that led to the intensification of agriculture in the San Joaquin Valley, wherein ranching and dry land wheat farming were progressively replaced by much smaller plots of land producing more product. Diversification of crops accompanied intensification as a broad range of new crops were grown such as grapes/raisins, sugar beets, vegetables and, cotton (Olmstead and Rhode 2017). A number of factors contributed to diversification and intensification beginning in the 1870s and continuing through 1941. Forces that converged and contributed to the intensification and diversification of agriculture in the Valley include the proliferation of land colonies, widespread irrigation, mechanization, long distance transportation via the railroad, gradual biological knowledge of farmers, artful marketing, development of the "California model" agribusiness approach, and international commodity prices (Olmstead and Rhode 2017).

2.4.6 Post World War II Development

The decades following WWII witnessed steady growth of the area around Clovis and a diversification of the local economy. Long-planned Federal and State water projects would be constructed, providing water storage for irrigation in the hot summer months and flood protection in light of the sharply vacillating patterns of central California weather.

Figure 8: 1958 Bureau of Reclamation Technical Record of Design and Construction for the Friant-Kern Canal in relation to Proposed Project (red dot).

The Central Valley Project (CVP), an ambitious plan to provide flood protection, navigation, storage/delivery, and power generation, was authorized by Congress in 1937. The general system was conceived as a state water project and approved by the Legislature and California voters as the Great Depression was taking hold. The State of California was unable to sell bonds to finance the endeavor and thus turned to the federal government for authorization and financing (DOI et al. 1985).

The CVP was primarily planned and constructed by the United States Bureau of Reclamation, with some partnership from the California Department of Water Resources. The CVP's infrastructure includes an extensive network of dams, reservoirs, canals, pumping stations, and power generation facilities. Key components of the project include Shasta Dam, Friant Dam, New Melones Dam, and the Sacramento-San Joaquin Delta pumping facilities. The water stored and conveyed by the CVP supports irrigation for farms, provides water for municipal and industrial use, and generates hydroelectric power (de Roos 1948).

The Friant – Kern Canal is the most proximate feature of the CVP. Beginning roughly 10 miles north of Clovis below Friant Dam, the canal skirts the eastern edge of the San Joaquin Valley, running 152 miles south to the Kern River. The canal was authorized as part of the CVP by the Flood Control Act of 1944, but the start of construction was delayed by the World War II and labor shortages. Construction of the canal commenced with the San Joaquin River Diversion Works, which included Friant Dam and the initial section of the canal, and was completed in 1949. The canal was subsequently expanded and extended in the 1950s and 1960s to reach a broader area of the southern San Joaquin Valley, becoming instrumental in providing irrigation water to thousands of acres of farmland, significantly contributing to the region's agricultural productivity.

Plans to construct a dam and reservoir at Pine Flat on the Kings River were hatched more than 70 years before its eventual completion in 1954. The project was authorized to be built by US Army Corps of Engineer in the Flood Control Act of 1944. President Truman assigned the Bureau of Reclamation to determine the irrigation benefit and establish the storage fee that those with water rights on the Kings River would have to pay. Pine Flat Dam now provides significant flood protection and water storage/regulation that benefits downstream communities and the 28 water right entities on Kings River, of which the FID is a major customer.

A plethora of crops and livestock were raised in Fresno County in the second half of the 20th century, the chief products being grapes and raisins, cotton, stone fruits, citrus, alfalfa, almonds, poultry, and dairy. The period is marked by what has been dubbed the second American agricultural revolution, which is plainly evident throughout Fresno County. “The factors that made up this revolution included greater use of soil conditioners, fertilizers and cover crops; adoption of more productive crop varieties and livestock breeds; more efficient crop production and livestock feeding regimes; widespread advances in mechanization; better control of insects and diseases; and more careful conservation practices (Editors 1996).”

In parallel, regional agriculture witnessed a gradual consolidation of farms and conversion of land into mixed uses to support a diversifying regional economy. While small scale agriculture grew alongside much larger agribusiness interests prior to WWII, the number of small ventures shrank steadily over time despite the continued growth in productivity of agriculture in Fresno County. The once arid plain between the Kings and San Joaquin rivers would maintain its status as an international agricultural powerhouse.

2.4.7 Residential Development in Fresno County

Following WWII residential tracts rapidly expanded into formerly cultivated land, a trend that continues as the population expands and the economy grows. While the postwar development of Clovis has a different character and began somewhat later, the town shares many of the core aspects typified by Fresno. Prior to WWII it was common for a prospective homeowner to purchase a subdivided lot and hire a builder for the design/build of a home. Alternatively, a builder might purchase several lots on speculation and

build homes to suit specific buyers. Between 1945 and 1970 the population of California state nearly tripled, while becoming the most populous state in 1962 (Caltrans 2011).

The sudden population boom created a demand for housing that would have to be addressed quickly, requiring a new approach. According to Caltrans (2011:15), "California grew much more rapidly in the postwar period than most of the other regions of the country. Many servicemen who had been stationed at California bases during the war decided to settle in the state after being discharged, rather than returning to their home states. In addition, job growth sparked by the defense economy brought migrants from across the country to California. As in the rest of the country, the postwar baby boom also played a significant role in the state's population growth. While California's population grew by 88 percent between 1950 and 1970."

Mass production techniques were introduced into housing construction of vast tracts of homes. The styles of post-war tract homes also influenced the design and layout of homes built on a smaller scale. The most common house styles from the post-war period include the Postwar Minimal House (aka GI House), Ranch House, Multi-level Houses, Contemporary, Rustic Ranch, Storybook, Asian influence, Sweeping-roof, and later Eclecticism. On the whole, postwar houses in California often lack distinction as mass produced products with minor embellishments. Remarking on the character of common houses during the period, Caltrans (2011:80) writes that "...the majority of postwar tract houses probably cannot be said to possess any architectural style. As applied to houses of low or moderate cost, some of the more popular styles were little more than the efforts of a highly competitive building industry to create an image with market appeal."

Section 3 | Methods and Results

A full accounting of cultural resources occurring within the Study Area was achieved by conducting a records search, review of published and gray literature, examining historic maps, contacting the California Native American Heritage Commission (NAHC), examining historic documents held at regional repositories, and an intensive field survey in July 2023. As a result of these efforts, a segment of the West Branch Clovis Ditch and two residential structures were identified, which meet the minimum age threshold for consideration as historic properties and/or historical resources. However, an evaluation of the ditch and two single family homes in this report concludes that the properties do not meet the significance criteria for listing in the California Register of Historical Resources (CRHR) or the National Register of Historic Places (NRHP).

3.1 LITERATURE REVIEW AND RECORDS SEARCH

3.1.1 Sources

A record search was completed on July 24, 2023, at the Southern San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System (CHRIS) located at California State University, Bakersfield (File No. 23-282; **Appendix B**). A ¼ mile search radius was used for the records search, which is large enough to capture any previously recorded resources and prior studies in proximity to the Study Area with the potential to be impacted.

Cultural resource site maps and records, survey reports, and other pertinent materials were reviewed as part of the records search. The records search included the California Office of Historic Preservation's (OHP) Built Environment Resources Directory, the Archaeological Determinations of Eligibility, and the California Inventory of Historic Resources (1976).

Additional sources of information were consulted as part of the literature review including archaeological, ethnographic, and historic sources in the public domain and the author's library. Such sources include, but were not limited to, the National Register of Historic Places (NPS 2023), California Historical Landmarks in Fresno County (COHP 2023), Fresno County Historical Landmarks & Records Advisory Commission's Inventory of Historic Sites in Fresno County (FCHLRC 2022), the Index of Historical Sites in Fresno County (FCPL 2022), Historic Spots in California (Hoover et al. 2002), California Ranchos (Shumway 1998), California Points of Historical Interest (OHP 1992), Handbook of North American Indians Volume 8: California (Wallace 1978), California Gold Camps (Gudde and Gudde 1975), Gold Districts of California (Clark 1970), California Heritage (Caughey and Caughey 1962), and California (Caughey 1940). A wide range of additional sources and historical references are cited in the Natural and Cultural Context sections above.

Primary archival documentation was sought by contacting several organizations and repositories, including the Fresno Irrigation District (FID) engineering archives, the California State Library, the Fresno County Library Heritage Center, the Online Archive of California (OAC), the Clovis Big Dry Creek Historical Society, and the Fresno County Historical Society. The FID generously opened up their engineering archives and historic aerial photographs. Mr. Kevin Mitchell at FID helped identify pertinent records, including a 1937 aerial photograph covering the Study Area. Collections at the California State Library were searched with

the help of Bradley Seybold, Senior Librarian. The State Library yielded pertinent information from from the Government Publications and California History collections. Digital collections from the Fresno County Library Heritage Center examined include Fresno County Property Atlases (1891-1920) and Historic San Joaquin Valley Photos. The OAC compiles digital collections from regional libraries and archives in California, organized through the University of California Libraries. To-date, neither the Clovis Big Dry Creek Historical Society or the Fresno County Historical Society has responded to inquiries about pertinent collections in their possession.

Many historic maps and aerial photographs were examined, including:

- General Land Office survey plats for Township 13 south Range 21 east (1854)
- California State Engineering Department *Detail Irrigation Map, Fresno County* (1885)
- *Official Atlas of Fresno County* (Thompson 1891, 1909)
- *Water Supply and Irrigation Papers* of the United States Geological Survey (1898)
- Sanborn Fire Insurance Maps for Clovis, California (1903, 1907, 1912, 1929, and 1932)
- Department of the Interior, *Kings River Irrigation Map* (1918)
- *Progressive Map of County of Fresno* (1920)
- *Clovis, California* USGS topographic quadrangles (1923, 1946, 1964, 1972, and 1981)
- Fresno Irrigation District aerial photography (1937)
- *Fresno, California* 1:250,000 topographic quadrangle (1948, 1955, 1958, 1960, 1962, and 1982)
- Commercial aerial photography (1957, 1962, 1972, 1984, and 1998)

3.1.2 Results

Literature Review Results

The literature review, as well as examination of historic maps and aerial photography, identified the presence of a segment of the West Branch Clovis Ditch and two single-family homes within the project area that are 50+ years old.

The literature review and records search also indicated that the potential for pre-contact archaeological sites within the project area is very low. Considering the environmental positioning of the Study Area, located at a significant distance from perennial water sources and within a relatively resource-poor habitat (compared to foothill or riparian zones), it is unlikely that it ever served as a magnet for prehistoric human occupation. Soils on the Study Area are largely derived from aeolian processes rather than alluvial, thus precluding the rapid, episodic, and deep sedimentation that characterizes areas to the west that were influenced to a greater extent by the flooding of the San Joaquin and Kings rivers. The study area is situated a significant distance from perennial water sources and there are no known pre-contact resources in the vicinity. Thus, the study area is deemed to have a low potential of harboring buried archaeological resources.

The approximate age and historic significance of the West Branch Clovis Ditch and two houses under consideration were established by reviewing available historic maps, historic aerial photographs, consulting the FID archives, newspaper clippings, and conducting a property deed search. The relevant findings in chronological order are provided below.

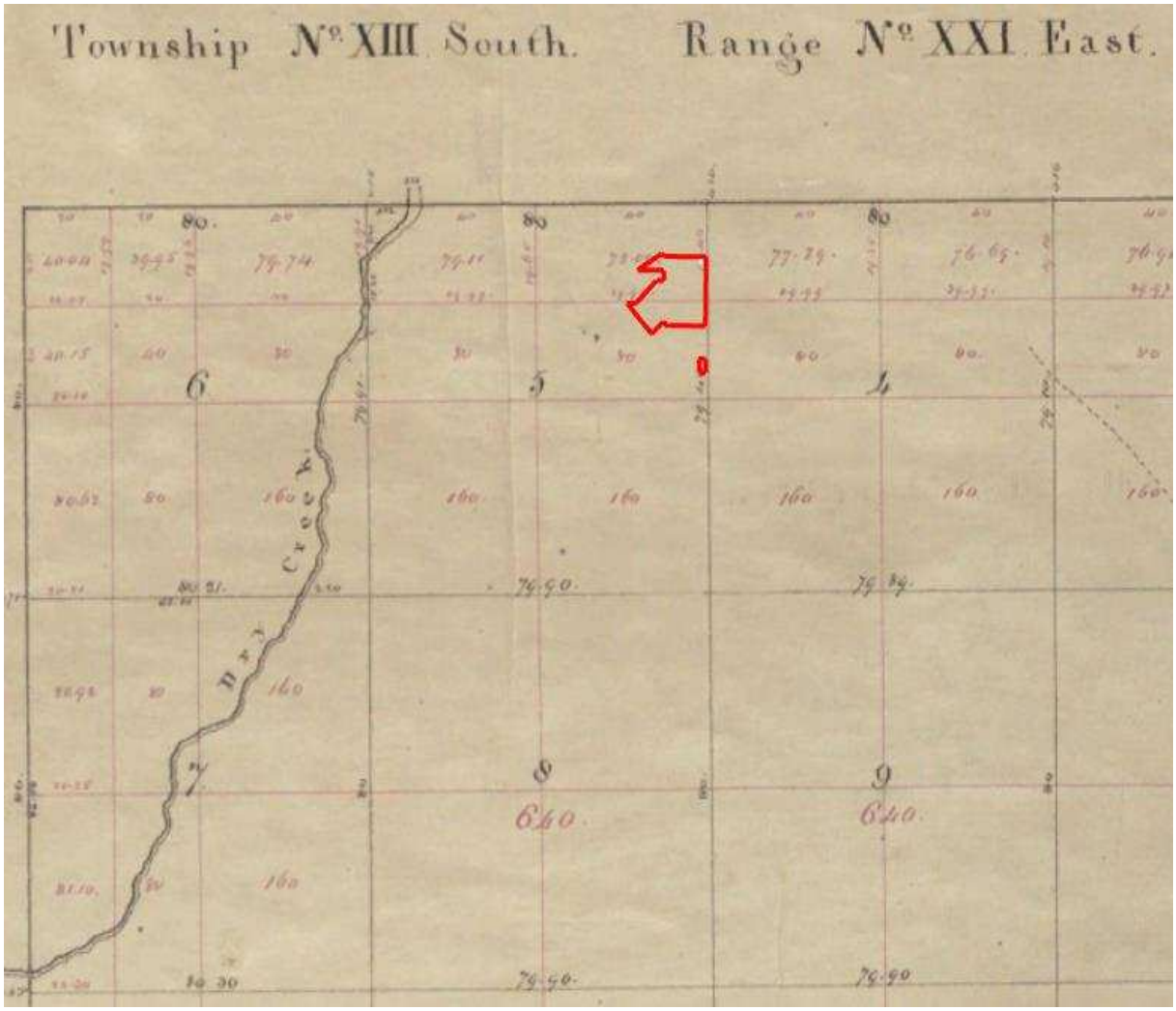

Figure 9: 1854 General Land Office plat for T 13 S, R21 E in relation to Proposed Project (red polygons).

The 1854 GLO plat for Township 13 south, Range 21 east is the earliest map identified that covers the Study Area (**Figure 9**). The plat depicts very few natural or cultural features in the vicinity of the Study Area. Section 5 is completely bereft of features with the exception of a segment of Dry Creek that clips the northwest quarter of the section. An "Old Road" is depicted roughly one mile to the east, that likely corresponds to the Stockton – Los Angeles Road.

An 1885 map, titled Detail Irrigation Map Fresno Sheet, was prepared by the California State Engineering Department (**Figure 6**). The map depicts major irrigation canals and ditches, as well as the plots of land irrigated by each. The whole of Section 5 (inclusive of current Study Area) is mapped as not irrigated.

The Official Atlas of Fresno County (Thompson 1891) indicates that G.W. Owen owned all of the land within Section 5, inclusive of the Study Area. The map depicts a single structure within the entirety of the section, located roughly 0.75 mile west of the Study Area.

Sanborn Fire Insurance maps, dating between 1904 – 1932, focus exclusively on the original town center and do not depict the current Study Area that lies roughly 0.5 mile north.

The 1909 update to the Official Fresno County Atlas indicates that the land previously owned by G.W. Owen had been subdivided (**Figure 10**). The subdivision was called Phillips Sierra Park Terrace. The 1909 map depicts North Dewitt Ave that once ran north to south along the eastern margin of the Study Area that was removed when highway 168 was expanded. Names visible on the map whose parcels intersect the Study Area include W.H. Hamilton, Jacob Heinkey, H. (W.?) Heinke, J.P. Spence, J.J. Hutchinson, and U.E. Brown.

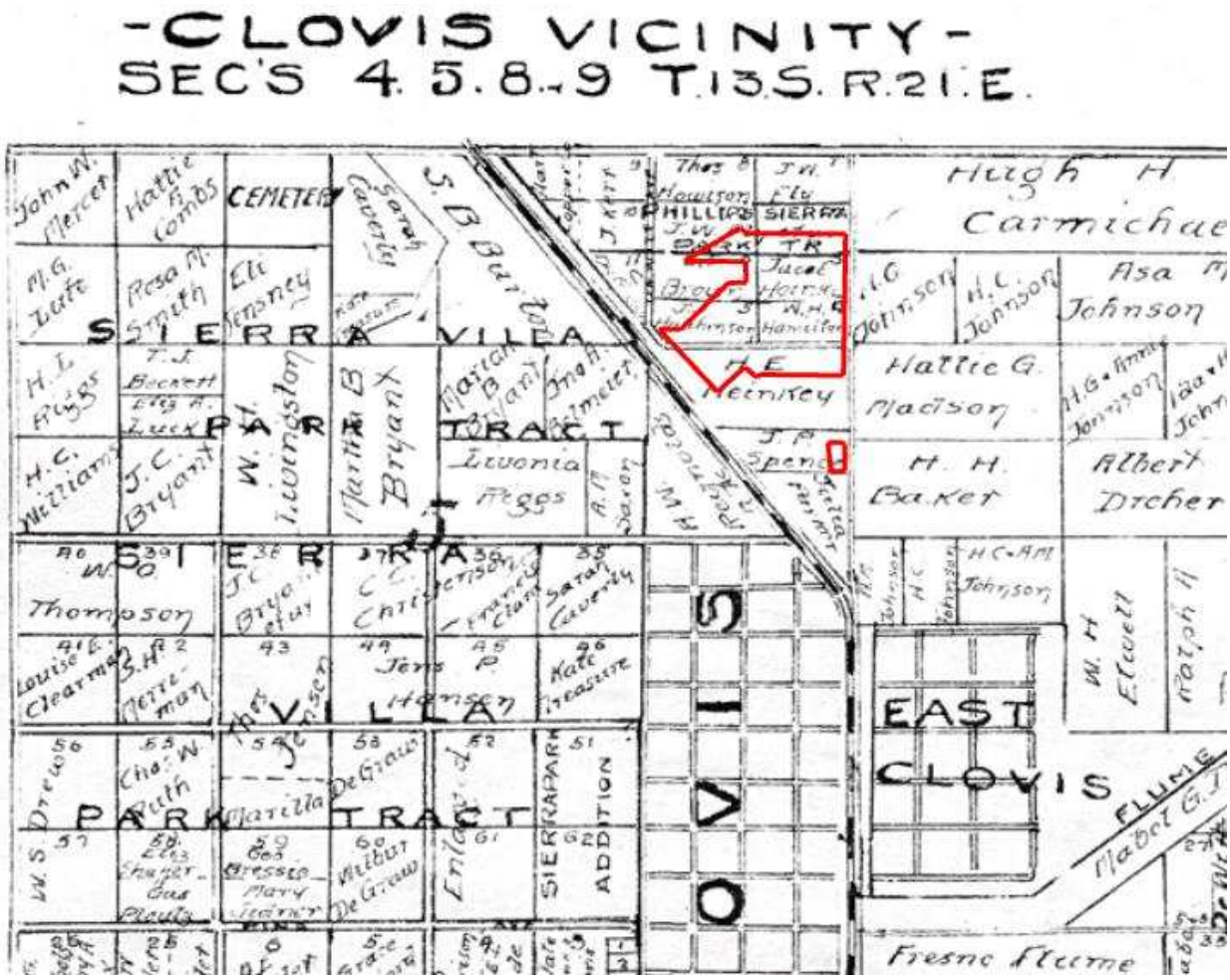

Figure 10: 1909 *Atlas of Fresno* map depicting land owners in relation to Proposed Project (red polygons).

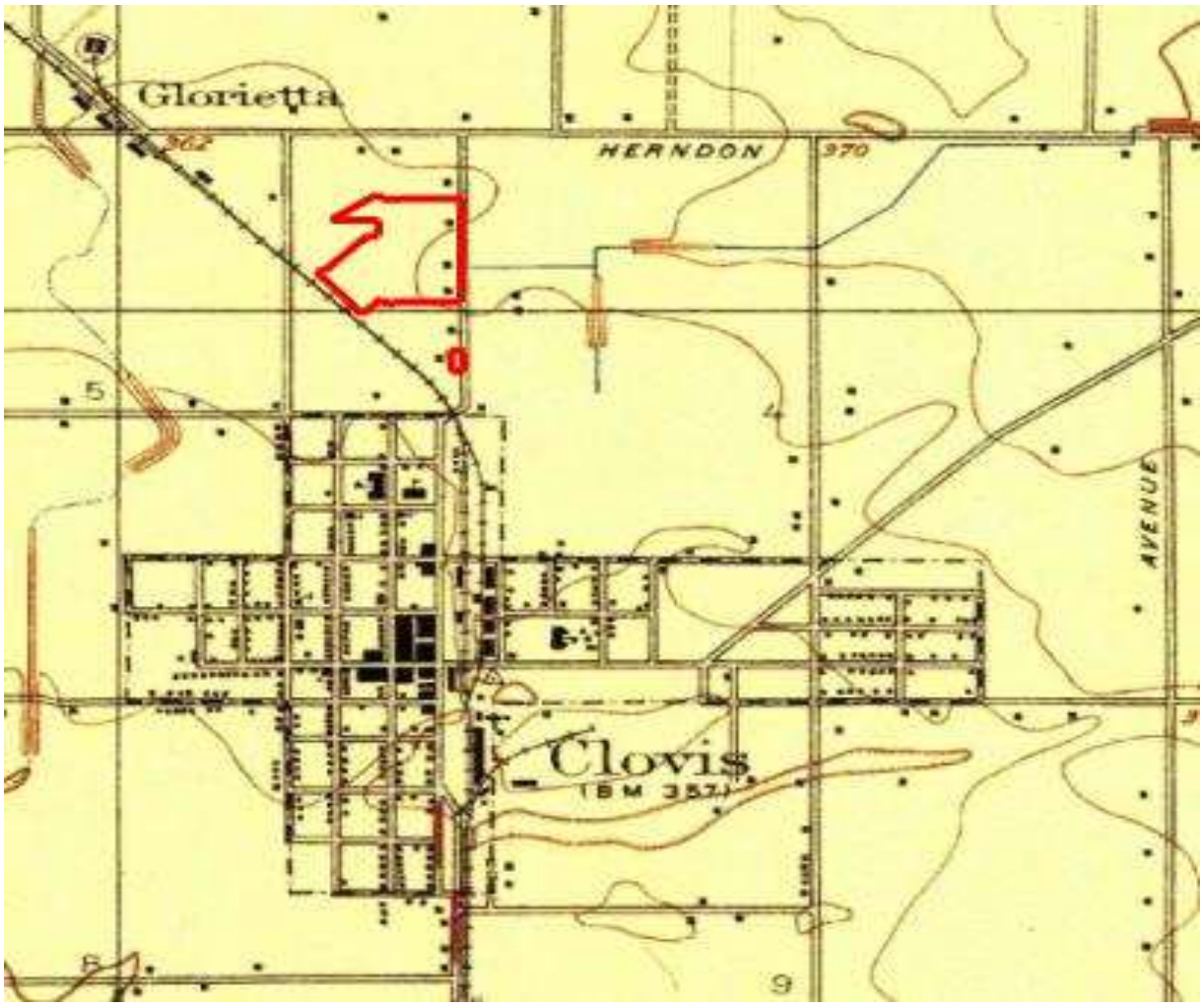

Figure 11: 1923 *Clovis, CA* USGS topographic map with Proposed Project depicted (red polygons).

The 1923 *Clovis, CA* USGS topographic map is the earliest map located that depicts the Clovis Ditch (**Figure 11**). The map clearly indicates that the Clovis Ditch had not yet been extended west of Clovis Ave. to intersect the Study Area. The 1923 map depicts three structures on the west side of Clovis Ave. that fall within the current Study Area, none of which appear correlated to the two extant houses within the Study Area (270 and 290 N. Clovis Ave.).

A 1937 aerial photograph from FID depicts the Study Area at a large scale, and indicates that the Clovis Ditch was still located east of Clovis Ave. (**Figure 12**). The aerial also depicts two structures, presumably houses, west of Clovis Ave. surrounded by agriculture.

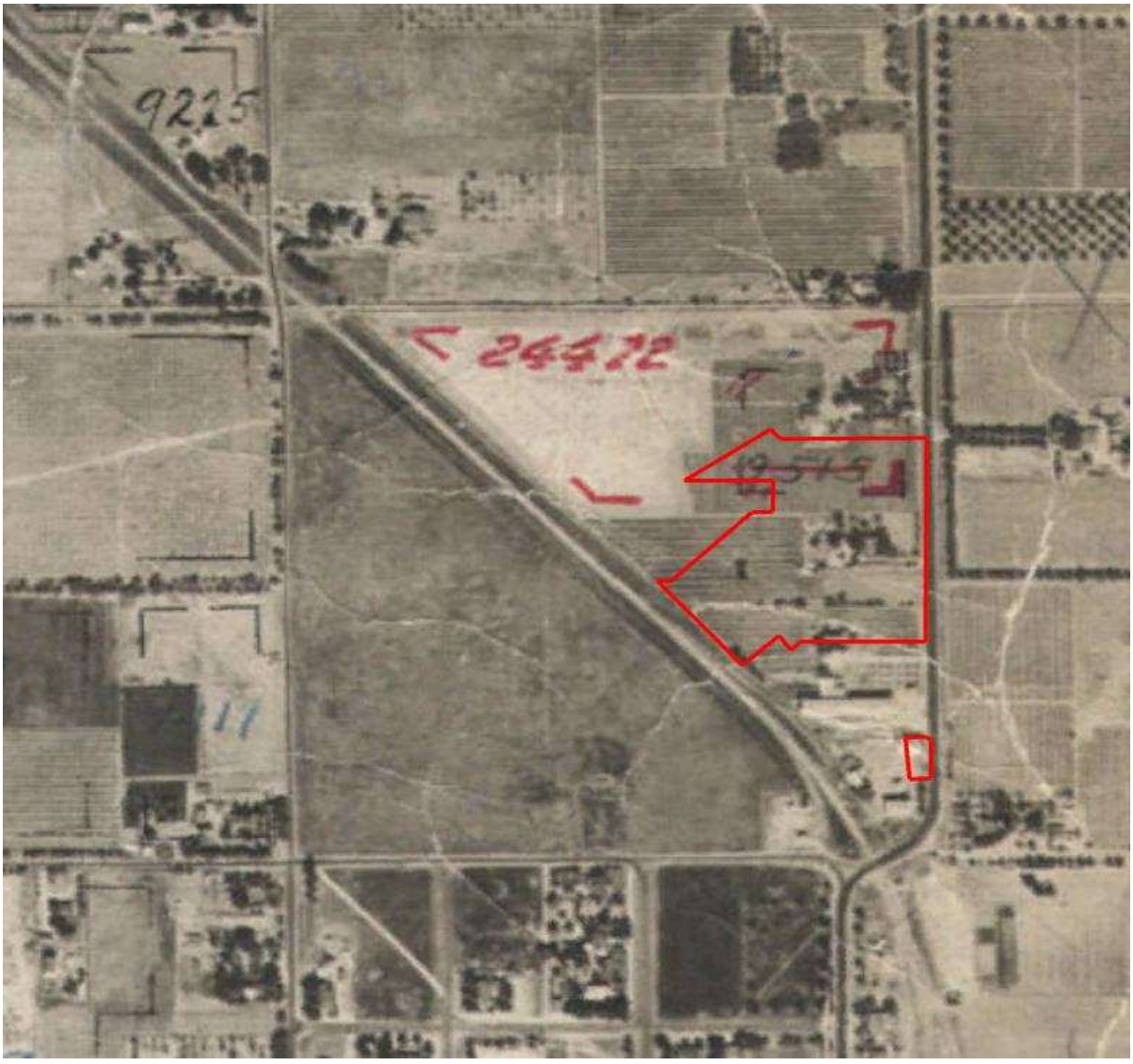

Figure 12: 1937 aerial photograph overlain with Proposed Project (red polygons) from the Fresno Irrigation District engineering archives.

Likewise, the 1946 USGS topographic map only shows the two southern-most structures that appear on the 1923 map, neither of which correlate to the two existing houses (**Figure 13**). Significantly, the 1946 map shows the Clovis Ditch now extending west of Clovis Ave., into the current Study Area, thus placing extension of the ditch into the current Study Area to sometime between 1937 and 1946. According to Mr. Kevin Mitchell, simple open cut earthen ditches are not well documented in the FID archives.

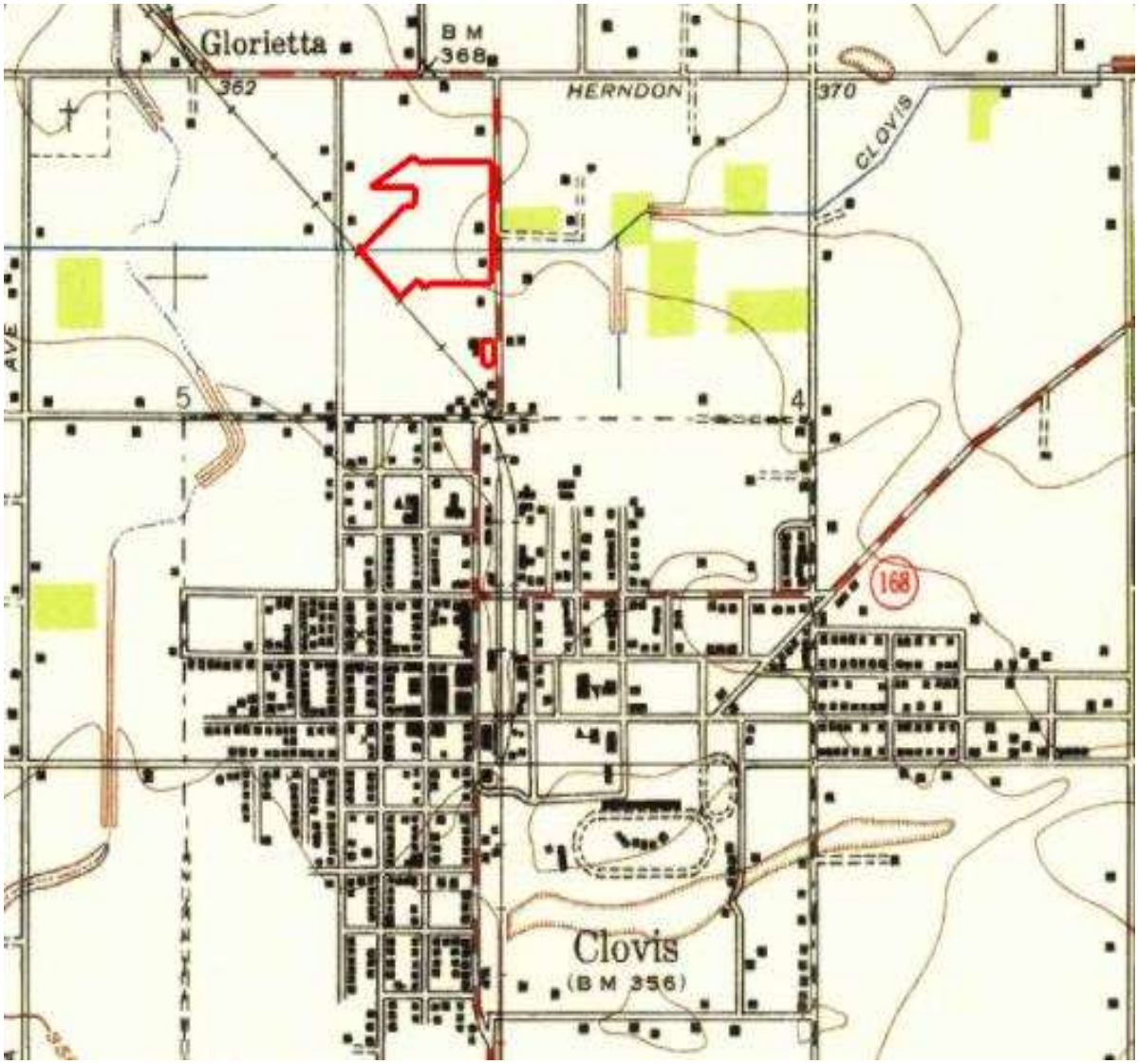

Figure 13: 1946 *Clovis, CA* USGS topographic map overlain with Proposed Project (red polygons).

The title history for 270 N. Clovis Ave. lists a construction date of 1951, which is corroborated by a 1957 aerial photo that depicts the home and landscaping (Netronline 2023). The adjacent property at 290 N. Clovis Ave. appears to be vacant land in 1957, with no visible structures or obvious improvements.

A subsequent aerial photo from 1962 depicts the newly constructed house at 290 N. Clovis Ave., with associated landscaping. Indeterminate crops are visible adjacent to the houses on the west and south (Netronline 2023).

The 1964 edition of the USGS map depicts the structures previously noted in the 1946 map remaining in the southern portion of the Study Area, and the addition of two structures in the north that correlate with 270 and 290 N. Clovis Ave. (**Figure 14**). The 1964 map also labels the West Branch Clovis Ditch as such for the first time.

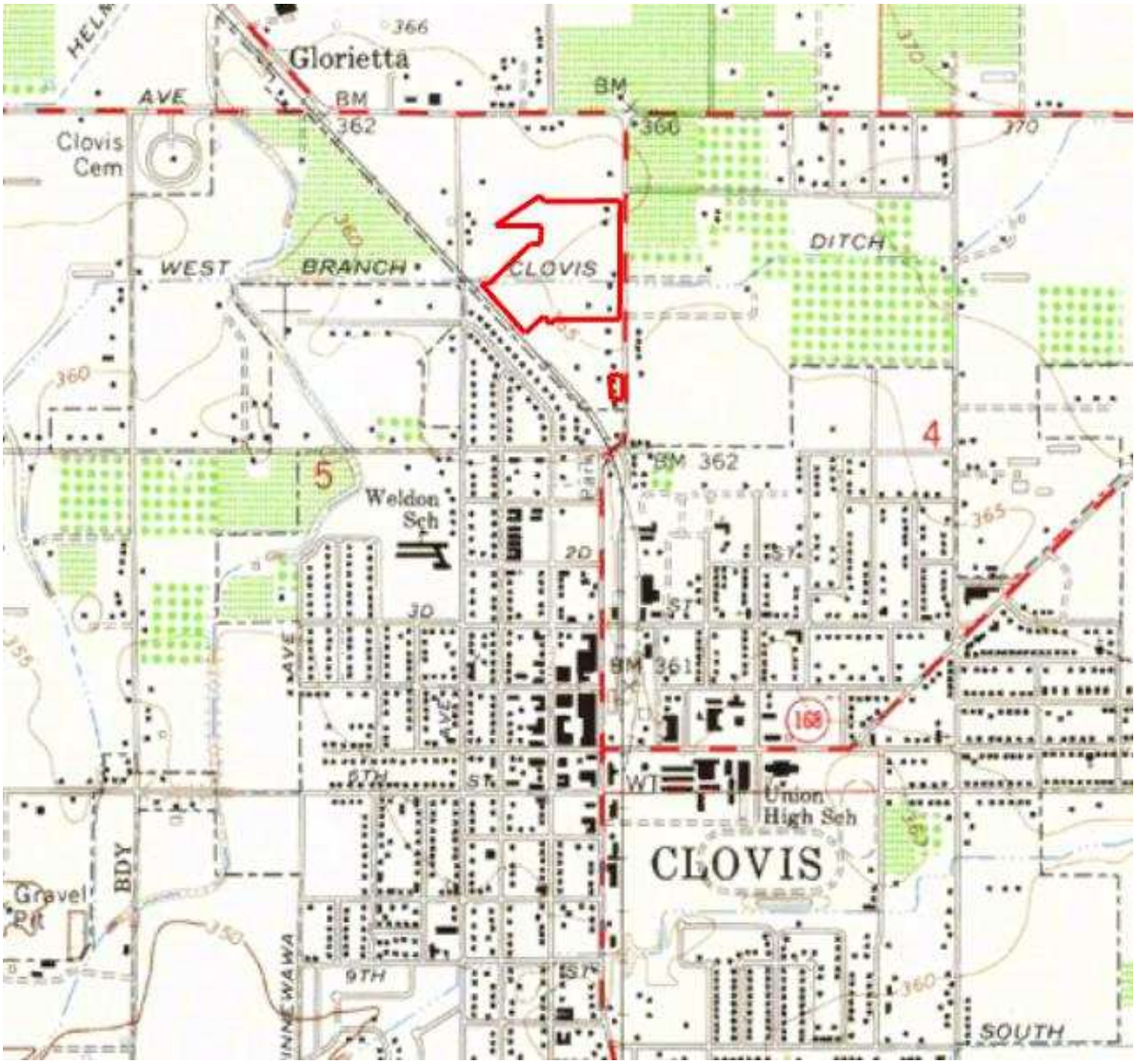

Figure 14: 1964 *Clovis, CA* USGS topographic map overlain with Proposed Project (red polygons).

A 1972 aerial photograph shows the presence of crops in the configuration noted above and does not depict any significant changes over the prior 10 year period (Netronline 2023). A 1984 aerial photograph shows a striking change in land use, with the absence of crops and addition of numerous rectangular objects neatly arranged to the west and south of 270 and 290 N. Clovis Ave (Netronline 2023). The patterns are consistent with shipping containers, recreational vehicles, and/or tractor trailers being stored. In the 1984 photograph, a large, rectangular building is visible for the first time in the storage area south of 270 N. Clovis Ave., north of the ditch (and later removed circa 2006). Structure additions during the

1990s include a manufactured home placed behind 270 N. Clovis Ave., and a large metal building erected behind 270 N. Clovis Ave. The 1998 aerial photo shows a dramatic expansion of the apparent storage, stretching from the north bank of the ditch north to Magill Ave (Netronline 2023). This general configuration remained in place until 2007 – 2009, when five of the remaining homes south of 270 N. Clovis Ave. were removed and the storage footprint was reduced to its current extent.

In summary, the literature review established that the West Branch Clovis Ditch was extended through the Study Area between 1937 - 1946. The house at 270 N. Clovis Ave. was constructed in 1951 and was surrounded by agricultural uses until the mid-1970s or early 1980s. The house at 290 N. Clovis Ave. was constructed in roughly 1960, although the County records erroneously suggest a construction date of 1998, which likely corresponds to the construction of a large open-air metal building behind the house to the west.

Records Search Results

The SSJVIC completed records search 23-282 using a ¼ mile search radius around the Study Area (**Figure 15**). The records search identified six prior studies intersecting all or portions of the Study Area. Five of the prior studies are regional overviews that did not include pedestrian survey of the study area, but were instructive for development of the natural and cultural contexts for the area (FR-00357, FR-00641, FR-01156, FR-01162, and FR-02675). The sixth study did include survey, but it was conducted just outside of the Study Area (FR-02986; Montgomery 2019). The Montgomery (2019) study (**Figure 15**) did not identify any potentially significant resources during the survey or background research. Several other studies have been conducted within 0.25 mile.

The resource location map prepared by the SSJVIC depicts two former historic home sites (P-10-006878 and P-10-006881) intersecting or abutting a sliver of the Study Area on the far west (**Figure 16**). The home sites include the Carl Polson Residence (251 North DeWitt) and Leonard Isaac and Oyier Morter Residence (285 North DeWitt). Both residential properties were evaluated for inclusion in the National Register and recommended ineligible (Smith and Austin 1991a, 1991b). The two houses were among three others located on North DeWitt which were all demolished in 1990s to make way for construction of the Sierra Freeway segment of highway 168. Previously documented resources are depicted in **Figure 16**.

An additional 19 resources have been identified within 0.25 mile of the Study Area, many in connection with the construction of highway 168. These nearby resources include the San Joaquin Valley Railroad / Southern Pacific Railroad (now Old Town trail), several residential properties, outbuildings, a service station, commercial buildings, barns, and a church/residence. No pre-contact archaeological resources have been previously documented on-site or within 0.25 mile.

The OHP Built Environment Resources Directory and OHP Archaeological Determinations of Eligibility do not list any resources near the Proposed Project. The California Inventory of Historic Resources (1976) and the National Register of Historic Places (as of 1/19/23) are also both negative. The National Register lists a total of 45 historic properties in Fresno County, but none in Clovis or in proximity to the Study Area. The Fresno Historical Landmarks and Records Commission's Inventory of Historic Sites in Fresno County (2002) lists approximately 345 properties, of which 13 are located in Clovis. Several of the sites in Clovis are discussed in the resource evaluations section (3.4) of this report as comparative properties.

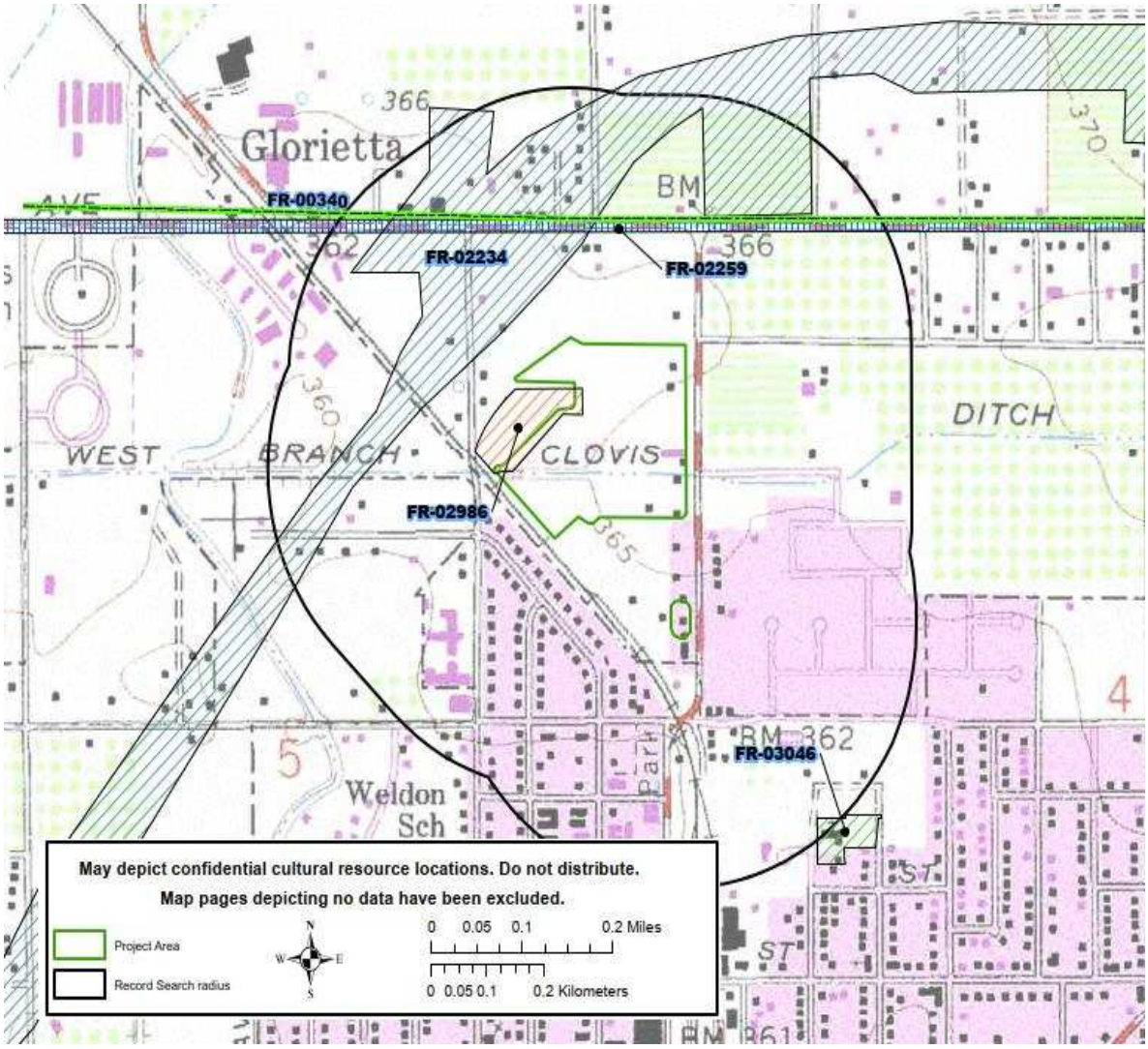

Figure 15: Records search results map - prior survey coverage

There are eight State Historical Landmarks in Fresno County, the nearest being No. 934, the Temporary Detention Camps for Japanese Americans - Pinedale Assembly Center, located roughly five miles due west of the Proposed Project.

While the records search failed to identify any archaeological, ethnographic, or historic resources within the Study Area, pre-field literature review and due diligence identified segment of the West Branch Clovis Ditch and two residential structures, which meet the minimum age threshold for consideration as historic (50+ years). These historic-period resources are described and evaluated in Section 3.4 below.

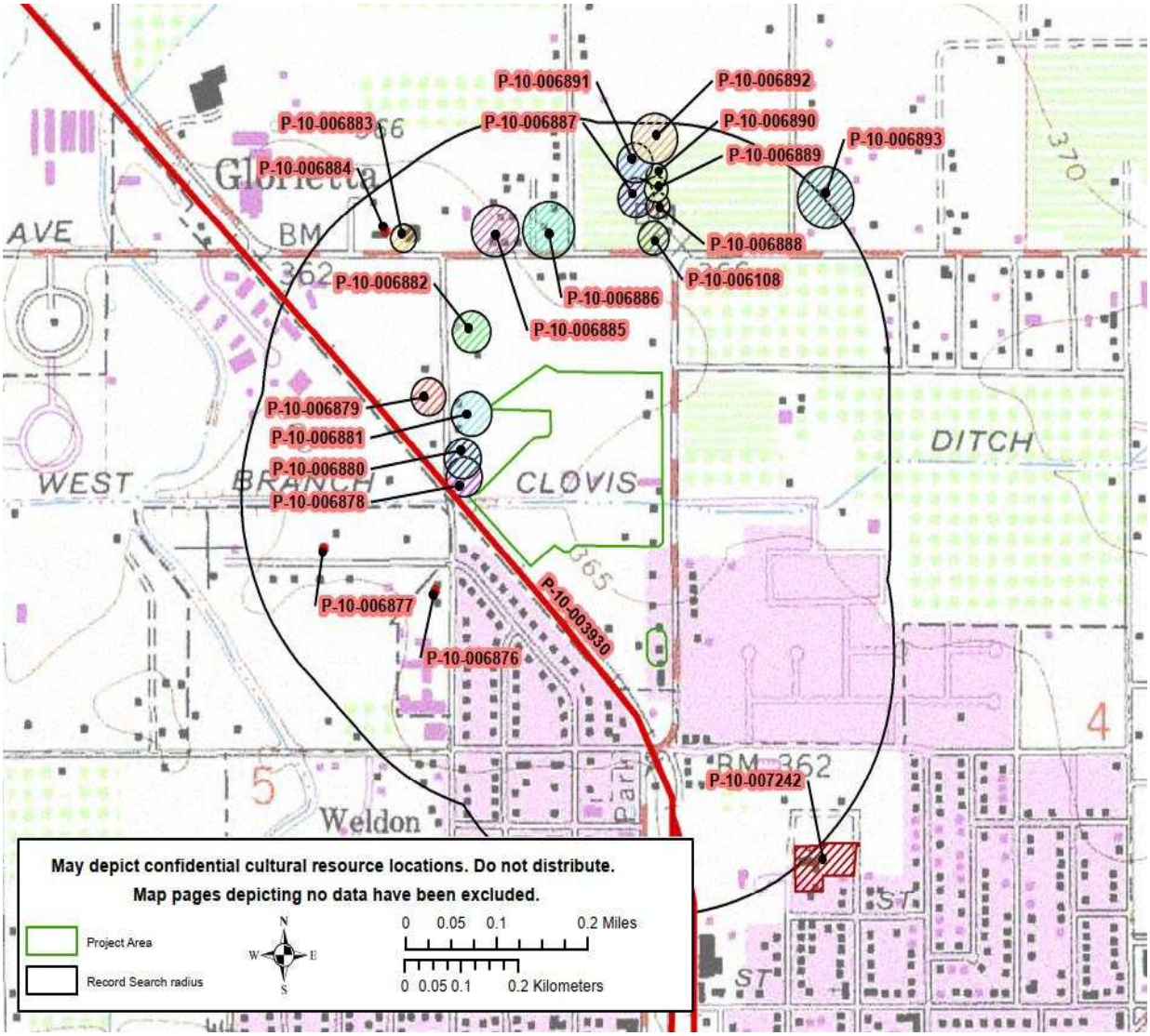

Figure 16: Records search results map – previously recorded resources.

3.2 NATIVE AMERICAN OUTREACH

The California Native American Heritage Commission (NAHC) was contacted on July 17, 2023, to request a search of the Sacred Lands File (SLF) and a list of local Native American contacts that may have information regarding the project area. Ms. Cameron Vela of the NAHC responded via email on August 15, 2023, and stated that the SLF search for the Study Area was negative. The NAHC also provided a list of 10 Native American tribes who may have knowledge of cultural resources in the study area (**Appendix A**):

> "This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By

> contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received." (Vela 2023)

Outreach to Native American tribes was initiated by emailing each representative of the 10 tribes identified: Big Sandy Rancheria of Western Mono Indians, California Valley Miwok Tribe, Dumna Wo-Wah Tribal Government, North Fork Rancheria of Mono Indians, North Valley Yokuts Tribe, Picayune Rancheria of Chukchansi Indians, Southern Sierra Miwuk Nation, Table Mountain Rancheria, Tule River Indian Tribe, and the Wuksachi Indian Tribe/Eshom Valley Band.

The initial communication introduced the proposed project, provided maps of the Study Area (vicinity, location, and aerial) and disclosed that the records search and pedestrian survey failed to identify any Native-affiliated cultural resources (refer to **Appendix A** for an example letter). After two weeks passed without a response a follow-up email was sent (hard copy sent to Chairsperson Alavarez). To-date no responses have been received.

3.3 FIELD SURVEY

The Study Area was subject to a thorough pedestrian survey on July 16, 2023. During the survey a segment of the West Branch Clovis Ditch and two residential properties (270 and 290 N. Clovis Ave.) were recorded. The survey did not identify any archaeological resources. Representative photographs are presented in **Figures 20** through **24**. The area surveyed is depicted in **Figure 17** and resources documented are mapped in **Figure 18**. California Department of Parks and Recreation 523 forms (DPR 523) were prepared for the ditch and single-family homes (**Appendix C**).

The survey was conducted by Mike Taggart, RPA (No. 12572), who meets the Secretary of Interior's Professional Qualification Standards for Archaeology and History. The survey used transects spaced 15 - 20 meters apart (intensive) in the undeveloped portions of the Study Area, focused on identifying artifacts, ecofacts, features, and landforms associated with pre-contact Native American occupation and historic uses. Developed areas, including paved parking lots, the residential compounds and extensive storage grounds covered in gravel were given reconnaissance level examination to observe and document built environment features, but were not intensively surveyed like the undeveloped areas.

Modern features such as the commercial storage yard, landscaping, a storm water detention basin, and contemporary detritus were noted but not recorded.

Ground surface visibility varied throughout, but was generally quite good. Areas tilled for weed abatement and compacted as result of past land uses provided excellent surface visibility. Periodic surface scrapes with a hoe were used to more closely inspect the surface for signs of archaeological material in areas where vegetation obscured visibility. Ubiquitous ground squirrel burrows also provided enhanced ground visibility throughout the undeveloped area surveyed.

Figure 17: Survey coverage map. Intensive coverage = red polygon; reconnaissance coverage = checkered.

Figure 18: Resource location map.

Contemporary detritus was observed throughout the Study Area, predominately along the ditch's edge where it is shaded, in proximity to the Old Town trail on the western margin, and those portions abutting N. Clovis Ave. Items noted include, plastic water bottles and food packaging, glass bottle fragments, a ceramic tile fragment, nondescript metal scrap, and a single saucer sherd. None of the contemporary detritus warranted documentation.

Improvements noted on site include a paved parking lot on the northwest corner of the Study Area, a fenced and graveled commercial storage space, two single family homes and one manufactured home, a segment of the West Branch Clovis Ditch that bisects the lower third of the Study Area, a fenced storm water detention basin, and the corner of another existing parking lot on the south. The small, discontiguous portion of the Study Area in the south is surrounded by commercial development and has been graded into a pad. A PG&E electric distribution line runs overhead on the eastern margin of the site and subsurface utility vaults were noted nearby. Landscaping is present on the two residential properties and along the northern property boundary where it fronts on Magill Ave. Three resources were examined and documented during the survey, and are evaluated below: the West Branch Clovis Ditch, 270 N. Clovis Ave., and 290 N. Clovis Ave. (**Appendix C**).

3.4 RESOURCE DESCRIPTIONS & EVALUATIONS

This section describes the three resources identified within the Study Area and considers whether they qualify as historic properties (36 CFR 63) and/or historical resources (CEQA Guidelines Section 15064.5).

The evaluations presented here follow National Register Bulletin 15, *How to Apply the National Register Criteria for Evaluation* (NPS 1997). Bulletin 15 establishes a uniform process to evaluate the significance and integrity of resources that meet the minimum age criterion (50 years). And because the California Register of Historical Resources and Public Resources Code draws so heavily from the national model, the evaluation framework is customary in CEQA contexts.

The survey, documentation, and evaluation of the West Branch Clovis Ditch follows the best practices established in *Water Conveyance Systems in California: Historic Context Development and Evaluation Procedures* (JRP and Caltrans 2000). This document provides a comprehensive historic context for the development of water conveyance systems in California and provides a jumping off point for a more detailed context for regional subsystems.

Likewise, evaluation of the two houses was guided by *Tract Housing in California, 1945 – 1973: A Context for National Register Evaluation* (Caltrans 2011). **Appendix C** provides the DPR 523 forms used to document the ditch and residential properties.

The historic context presented in Section 2.4 of this report describes the relevant themes in the history of Clovis, Fresno County, and the broader San Joaquin Valley. The themes provide a lens through which the resources on the Study Area are viewed to understand their place in the history of the region and beyond. The theme of water development and agriculture in Fresno County (1870 – 1944) is applicable to the evaluation of the West Branch Clovis Ditch and is considered in Section 3.4.1 below. The two residential properties are viewed within the theme of post-WWII development in the San Joaquin Valley (1945 – 1973) as described in Sections 2.4.6 and 2.4.7.

Following Bulletin 15, the historic contexts established that the property types may have relevance in history, so the following evaluation discussion will describe the resources with reference to their respective historic contexts and periods of significance. The discussion will establish whether the resources possess the physical characteristics with sufficient integrity to convey the aspects of history they are associated with.

3.4.1 West Branch Clovis Ditch

The West Branch Clovis Ditch is a 4.5 mile water conveyance that begins at a head gate on the Enterprise Canal where it crosses Herndon Ave. to the east, terminating at a channelized section of Big Dry Creek in Clovis. Originally constructed as an earthen open-cut ditch, the conveyance is now piped underground for more than 95% of its length (**Figure 19**).

The ditch bisects the Study Area along an east-west axis for a distance of approximately 1,130 feet, representing the only open ditch section remaining. Outside of the Study Area the conveyance is completely buried, moving water through an FID pipeline under suburban development.

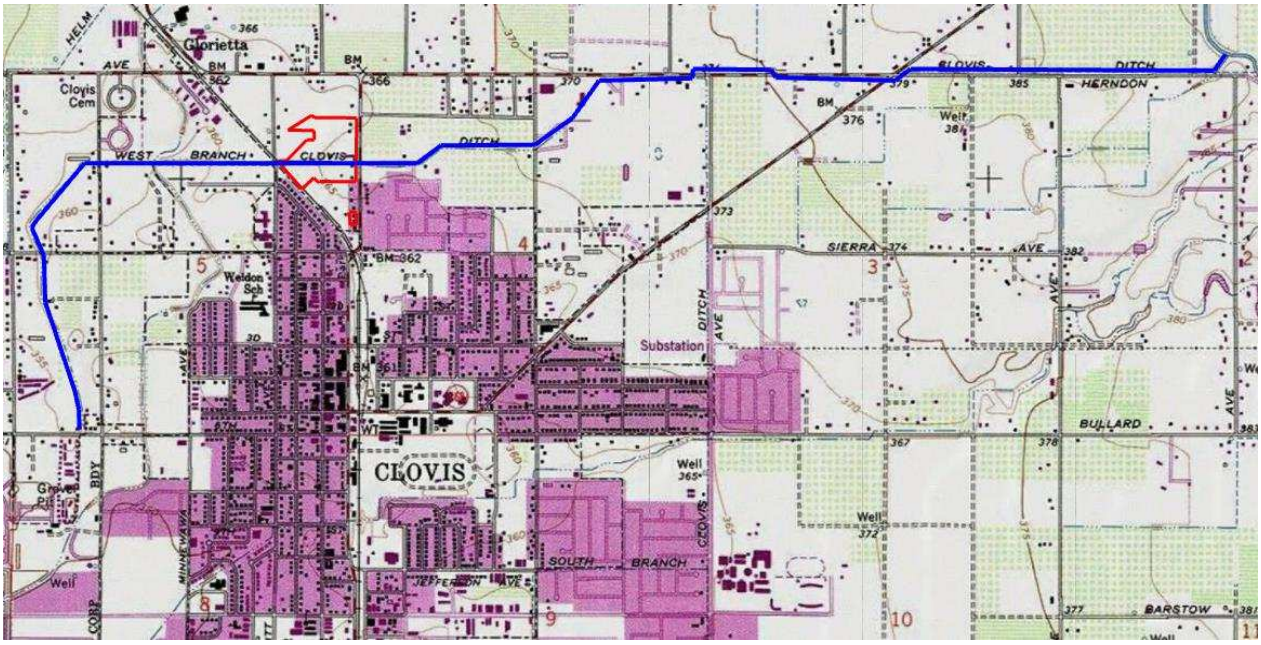

Figure 19: Map of West Branch Clovis Ditch (blue line) in relation to the project site (red polygons).

Figure 21: Central segment of the West Branch Clovis Ditch looking west.

Like many small, open cut lateral ditches off of main arteries in the FID system, the precise age and origin of the Clovis Ditch are not firm. As discussed in the historic context and literature review sections, examination of historic maps, publications, government reports, newspaper archives, and consulting FID suggest the initial segment was constructed circa 1903 by the Clovis Ditch Company and later extended west of N. Clovis Ave. by FID between 1937 – 1946 (see Sections 2.45 and 3.12 for details). Thus, the portion of the ditch running through the Study Area was part of the later extension, likely constructed well after FID's establishment in 1920. Between the District's founding and the years leading to WWII, FID constructed and improved thousands of miles of ditch laterals and appurtenances.

Figure 20: Eastern segment of West Branch Clovis Ditch where it's daylights west of N. Clovis Ave. looking west.

The original open cut intake into the ditch from the Enterprise Canal has been replaced with a gate leading directly to a buried pipe. The buried pipe then travels approximately 2.6 miles to reach the Study Area, where the conveyance daylights just west of N. Clovis Ave. After re-entering a pipe on the western edge of the Study Area, the conveyance continues underground for another 1.7 miles before terminating at a channelized segment of Dry Creek.

The surface segment of the conveyance is virtually indistinguishable from any of the earthen ditch laterals present throughout FID's service area. Within the Study Area the ditch is an open cut, unlined conveyance that is piped underground on the east and west ends. Water flows from the east and daylights immediately adjacent to N. Clovis Ave. directly opposite of Palo Alto Ave. Water flows out of a 24" pipe embedded in a concrete apron on the east end (Feature A). The ditch measures approximately 136" across at the crest of the banks, 60" wide at the base, with an average depth of 42". The berms measure between 8 – 18" above grade and are generally higher on the north side of the ditch.

Figure 22: West end of the above ground ditch where it enters a buried pipe, looking southwest.

The ditch is again piped underground near its intersection with the former Southern Pacific Railroad, which is now occupied by the Old Town Trail. The western terminus of the ditch is nearly identical to the one on the east end, with a small metal debris grate at the pipe entrance (Feature B). A gate valve is present on the north bank of the ditch, approximately 80 feet east of the eastern terminus (Feature C).

The ditch is largely absent from the archival record, as a ubiquitous irrigation feature in the region. What little can be gleaned from historic records are limited to public notices in local newspapers concerning shareholder meetings early in its life, and records from the State marking the creation and dissolution of the corporation that built the original segments that were ultimately incorporated into the FID system. The plentiful maps, reports, and publications concerning irrigation and water development in the region all neglect to mention the ditch and it is only mapped on USGS topographical maps beginning in 1923 (roughly two decades after its initial construction).

FID does not retain any pertinent historic documentation on the precise age or other characteristics of the ditch, which is not uncommon for simple earthen ditches in their service area (Mitchell 2023). However, we can surmise that the original 2.6 mile segment was part of the roughly 800 miles of canals and ditches conveyed to FID at its inception in 1920. Not surprisingly, the ditch is not listed in a local register of historic resources, as defined in section 5020.1(k) of the Public Resources Code, nor is it identified as significant in a historical resources survey. Research at the Fresno County Public Library, FID engineering archives, California State Library, historic newspapers, government publications, and outreach to the Clovis Big Dry Creek Historical Society and the Fresno County Historical Society failed to produce any material of substance related to the ditch.

Viewed in relation to key regional water infrastructure, the diminutive importance of the West Branch Clovis Ditch is clear. Conveyances such as the Enterprise, Gould, Fresno, and Friant – Kern canals all played a significant role in the development of irrigated agriculture in the region and supported the subsequent growth of local communities. These substantial engineering features all made contributions to the patterns of both San Joaquin Valley and California history. While the first three canals mentioned above represent the early years of water development in Fresno County (1870 – 1919) built with private capital and closely tied to land speculation, the latter represents the last major phase of water development (1937 - 1954) in the project vicinity that was publicly funded and tied to a broader system of enormous proportions in the post-war era. The early canals also played pivotal roles in the water wars of the late 19th and early 20th centuries, each swept up in consequential litigation that would shape case law around water rights for generations.

At the time of FID formation in 1920, the Clovis Ditch represented roughly 0.3% of the total length of District's conveyance facilities at just 2.6 miles in an area of marginal agricultural significance. After the ditch's extension to the current 4.5 miles, it would come to account for approximately 0.5% of the District's conveyance infrastructure. Thus, the Clovis Ditch (later dubbed West Branch) has never accounted for a significant share of the FID's conveyance infrastructure, let alone that of the County more broadly. Likewise, this diminutive ditch did not play any discernable role in the development of Clovis, which owes its early existence to the flume, mill, and San Joaquin Valley Railroad. The Clovis ditch skirted the town site on the north and watered the sparsely populated lands beyond the town center.

The design and construction of the ditch are completely unremarkable and urban development has drastically altered the setting, feeling from agricultural to residential and commercial. With the exception of the Enterprise Canal, the ditch lacks related sites, associated resources, or aspects of the surrounding setting that could contribute to its significance. "Associated resources may include agricultural fields, mines, hydroelectric power plants, caretakers' or construction crews' housing, and perhaps even entire communities. A system's setting may also contribute to its significance (JRP and Caltrans 2011:85)." Likewise, the drastic modifications to the ditch and surroundings have affected its integrity of design, setting, materials, workmanship, feeling, and association.

The West Branch Clovis Ditch is not directly associated with any events that have made a significant contribution to the broad patterns of California's history and cultural heritage, nor is it associated with the lives of persons important in history. The simple conveyance does not embody distinctive characteristics of a type, period, region, or method of construction, nor does it represent the work of an important creative individual, or possess high artistic values. The West Branch Clovis Ditch has not yielded, nor is it likely to yield, information important in history. Even if the ditch was found to meet the significance thresholds

cited above, its integrity has been severely compromised by removing 95% of the open cut earthen canal features. Thus, the West Branch Clovis Ditch does not meet the criteria for listing in the CRHR or the NRHP.

3.4.2 270 N. Clovis Avenue

The property at 270 N. Clovis Ave. includes a primary residence with landscaping, a manufactured home, a detached garage, and a large open-air vehicle port covering approximately 1.2 acres. The title history for 270 N. Clovis Ave. lists a construction date of 1951, which is corroborated by a 1957 aerial photo that depicts the home and landscaping. Refer to **Appendix C** for the DPR site records for the property.

The primary residence is a ranch-style home with aspects of both a Spanish and Prairie sub variants (McAlester and McAlester 2002). The reported conditioned space is 1,945 square feet with a one-car attached garage, although the actual size is larger. The building has been expanded over the years, including an addition next to the garage on the north side of the original building, as well as a rectangular addition on the rear northwest corner covering approximately 1,600 additional square feet. The home's original rambling layout has been expanded over time using different materials and incongruous roof lines.

It has a hip and valley tile roof that is low-slung with moderately deep eaves. The front facade is clad in tan bricks laid in a running half pattern. The front exterior walls include picture windows are made up of a grouping of tall rectangular shapes, with some that open for ventilation. The windows are white, double-pane vinyl that are not original.

Consistent with ranch architecture the building exhibits natural colors in materials in a warm palette, and uses repeating square and rectangle shapes. A brick walkway leads to a covered brick porch oriented perpendicular to the street, which is bound by a simple wrought iron railing.

Figure 23: House located at 270 N. Clovis Ave. looking west.

The house features decorative red brick planters in the front and low-slung brick wall at the northern driveway entrance and along the dirt sidewalk. The tidy, well-manicured landscaping includes grass and well-pruned shrubs in the front yard. Two large Mexican palms are present on the southern margin of the front yard, separating the residential space from the adjoining commercial outside storage space.

The rear of the house features a lawn and concrete patio, with a line of trees providing vegetated screen. Beyond the screen lies a large metal vehicle port, a detached garage, and a manufactured home. A chain link fence with privacy slats surrounds the 270 N. Clovis Ave. property and separates it from the adjacent house to the north, 290 N. Clovis Ave.

The southern half of the property currently serves as a boat and RV storage area that is fenced and graveled. The primary house was originally surrounded by agricultural uses until the mid-1970s or early 1980s. Sometime after 1984 the property was used for storage of what looked to be tractor trailers, boats, and RVs. Structure additions during the 1990s include a manufactured home placed behind the main residence and a large metal building also erected behind the house. The 1998 aerial photo shows a dramatic expansion of the apparent storage, stretching from the north bank of the ditch north to Magill Ave.

As described in the historic context, postwar houses in California often lack distinction as mass produced products with minor embellishments, and 270 N. Clovis Ave. is no exception. Ranch style homes that are significant are typically well-preserved examples of a quintessential type, associated with an influential architect or builder such as William Wurster or Cliff May.

Local historic inventories were examined to identify significant built environment resources for comparison to the property evaluated here. These include the Fresno County Historical Landmarks & Records Advisory Commission's *Inventory of Historic Sites in Fresno County* (FCHLRC 2022) and the *Index of Historical Sites in Fresno County* maintained by the Fresno County Public Library (FCPL 2022). Historically significant homes around Clovis range from a simple board and batten house of a Clovis pioneer (e.g., Reyburn Home, 1881), to large opulent homes built by successful men (e.g., L.W. Gibson House, 1912). In contrast, the Larson residence and Cobb Fig Compound is significant locally as an excellent example of diversified agriculture in Fresno County between 1916 – 1965. The compound includes a fig barn, tractor shed, horse shed, and a ranch house. In each case, the historical resources used as a basis for comparison were associated with an important person, an important event or period, and/or possesses high architectural value.

Viewed through the historic context and in comparison to regional built environment resources, the house and surrounding grounds at 270 N. Clovis are unremarkable among the thousands of ranch style variants that proliferated in Fresno County after WWII. The property is not listed in a local register of historic resources and has not been identified as significant in a qualifying historical resources survey. The builder could not be identified, but there is no indication that the house is the work of a noted architect. The past property owners and occupants of the home have not been identified as persons of historical interest. The house and property do not exemplify a specific phase of regional history, such as small-scale diversified agriculture. The house and associated features do not exhibit the distinctive characteristics of a type, period, region, or method of construction, nor do they possess high artistic values. The property is not a source of information important in history. The property at 270 N. Clovis Ave. does not meet the significance criteria for listing in the CRHR or the NRHP.

3.4.3 290 N. Clovis Avenue

The property at 290 N. Clovis Ave. includes a primary residence with landscaping and a large open-air metal building on approximately one acre.

The house at 290 N. Clovis Ave. was constructed in approximately 1960, although the County records erroneously suggest a construction date of 1998, which likely corresponds to the construction of a large open air metal building behind the house to the west. Refer to **Appendix C** for the DPR site records for the property.

The house is a simple ranch-style home with aspects of the Prairie sub variant (McAlester and McAlester 2002). The conditioned space is approximately 1,690 square feet with a 1.5-car attached garage. There are four exterior doors on the front facade of the building that include, moving south to north, a car door on the attached garage, a standard door into the garage, the primary entrance near the center, and a sliding glass door on the far north.

The house has asphalt shingles on a hipped roof with moderately deep eaves. The front exterior is horizontally divided in the classic ranch style, with a low brick cladding that extends 1/3 of the way up, which then transitions to stucco. Windows are rectangular and high-set. A sliding glass door was added to the house on the north end of the eastern facade that opens to the small front yard. The front exterior walls include picture windows are made up of a grouping of tall rectangular shapes, with some that open for ventilation. The windows are aluminum that appear original.

The house features decorative red brick wall and small planter that frame the entrance to the house, which is set perpendicular to the long axis of the facade. In the front a low-slung cinder block (18 inches tall) wall skirts the eastern yard and abuts the dirt sidewalk. The small front yard is dominated by concrete for parking and includes large Californian cypress providing ample shade and several Italian cypress providing vertical contrast to the low-slung architecture.

The house is surrounded by, with the exception of the front yard, a chain link fence with privacy slats topped with three strands of barbed wire. The small back and side yards are shaded by two mature Californian cypress. Beyond the back yard lies a paved light industrial area dominated by a large open air metal building with a small enclosed lean-to structure on its east side. The paved area behind the house has a large driveway with a rolling gate fronting on Magill Ave.

Like its neighbor to the south, the property at 290 N. Clovis exhibits a similar evolution in land use from one dominated by agriculture to one dedicated to commercial uses. An aerial photo from 1962 depicts the newly constructed house at 290 N. Clovis Ave., with associated landscaping. Indeterminate crops are visible adjacent to the house on the west. A 1984 aerial photograph shows a striking change in land use, with the absence of crops and addition of numerous rectangular objects neatly arranged to the west and south of 270 and 290 N. Clovis Ave. The patterns are consistent with shipping containers, recreational vehicles, and/or tractor trailers being stored.

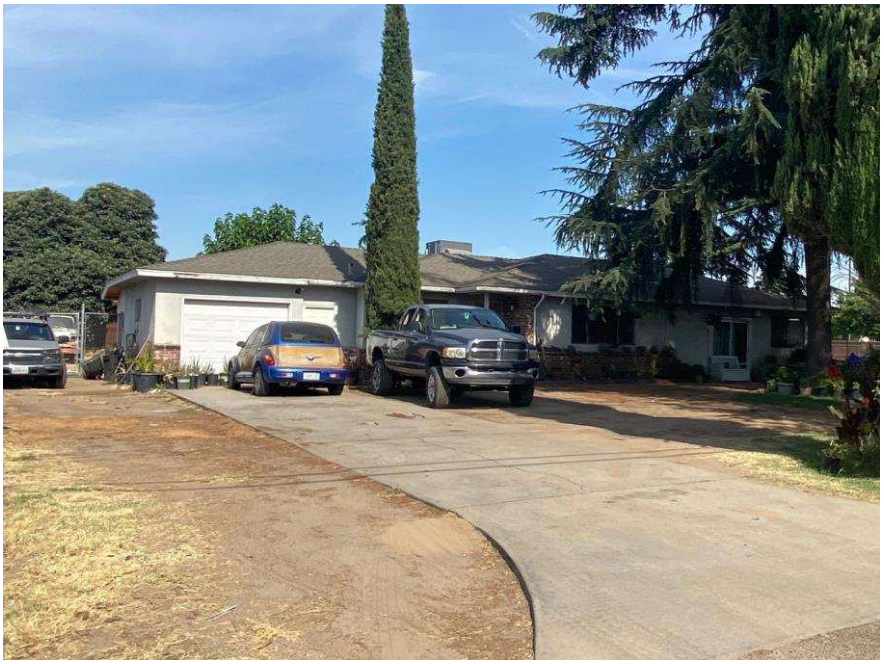

Figure 24: House located at 290 N. Clovis Ave. looking west / northwest.

As with the adjacent residential property, 290 N. Clovis Ave. was viewed through the historic context presented in Section 2.4 and compared to regional built environment resources. The property does not have any hallmarks as an architecturally significant building, nor is it associated with any recognized historical figures within any of the themes considered. The property is not listed in a local register of historic resources and has not been identified as significant in a qualifying historical resources survey. The house and property do not exemplify a specific phase of regional history or events. As an unembellished ranch style house that is ubiquitous in the western United States (and even more so regionally), it does not exhibit the distinctive characteristics of a type, period, region, or method of construction, or possess high artistic values. The property is not a source of information important in history. The property at 290 N. Clovis Ave. does not meet the significance criteria for listing in the CRHR or the NRHP.

Section 4 | Findings and Recommendations

4.1 FINDINGS

This report presents the scope and results of a cultural resources inventory and evaluation for planning entitlements related to the Golden Triangle Planned Commercial Center Project. A full accounting of cultural resources occurring within the Study Area was achieved by conducting a records search, review of published and gray literature, examining historic maps, contacting the California Native American Heritage Commission (NAHC), outreach to local Native American tribal representatives, examining historic documents held at regional repositories, and a field survey.

A Sacred Lands File search by the California Native American Heritage Commission was negative. The Commission provided a list of 19 Native American contacts, representing 10 tribes, who may have knowledge of regional resources. Letters were sent to all representatives, most delivered via email (**Appendix A**). The outreach introduced the proposed project, provided maps, and shared that the records search and pedestrian survey did not identify any Native-affiliated cultural resources. After two weeks passed without a response a follow-up email was sent. To-date no responses have been received. There is no indication of Tribal Cultural Resources on the Study Area.

The literature review identified the presence of the West Branch Clovis Ditch and two single-family homes within the project area that are 50+ years old. The literature review and records search also indicated that the potential for pre-contact archaeological sites within the project area is very low considering the environmental setting, being situated at a significant distance from perennial water and other known resources.

The records search identified six prior studies intersecting all or portions of the Study Area (**Appendix B**). Five of the prior studies are regional overviews that did not include pedestrian survey of the study site or vicinity. The records search identified one prior pedestrian survey that had been completed adjacent to the Study Area assessed here (Montgomery 2019).

A thorough pedestrian survey was conducted on July 16, 2023. During the survey the West Branch Clovis Ditch and two residential properties (270 and 290 N. Clovis Ave.) were recorded. California Department of Parks and Recreation 523 forms were prepared for the ditch and single-family homes (**Appendix C**). The survey did not identify any pre-contact or historic archaeological resources.

The identified resources were evaluated with reference to their respective historic contexts and periods of significance, using an established methodology. The evaluation concludes that the West Branch Clovis Ditch, 270 N. Clovis Ave., and 290 N. Clovis Ave. do not meet the significance criteria for listing in the CRHR or the NRHP.

In conclusion, no historic properties or historical resources are present within the Study Area and there is a very low potential for buried archaeological deposits to be present.

4.2 RECOMMENDATIONS

Thorough study of the Study Area failed to identify any significant cultural resources and further investigation is not warranted.

In the unlikely event that suspected or confirmed human remains are uncovered during ground disturbing activities, immediate action is required. Removal or possession of any Native American human remains or artifacts from a grave or cairn is a felony unless otherwise permitted by law (PRC 5097.99). In compliance with Section 7050.5 of the Health and Safety Code, implement the following:

1. Stop all ground disturbing work in the vicinity and secure the discovery location from damage.
2. Immediately contact the Fresno County Coroner through the Sheriff's Office.
    - The coroner has two working days to examine human remains after being notified by the responsible person. If the remains are Native American, the Coroner has 24 hours to notify the Native American Heritage Commission.
    - The Native American Heritage Commission will immediately notify the person it believes to be the most likely descendant (MLD) of the deceased individual(s).
3. The MLD has 48 hours to make recommendations to the landowner, or representative, for the treatment or disposition of the human remains and grave goods.
    - If the MLD does not make recommendations within 48 hours the owner shall re-inter the remains in an area of the property secure from further disturbance, or:
    - If the landowner does not accept the MLD's recommendations, the owner or the descendant may request mediation by the Native American Heritage Commission.

Likewise, if buried artifacts or features are encountered during construction, work should stop in the vicinity of the discovery until an archaeologist can make an assessment. Examples of archaeological material and features that occur in buried contexts within Fresno County include darkened (midden) soil; milling tools such as handstones, millingstones, portable mortars or pestles; flaked stone tools and flakes made of obsidian, basalt, or chert; shell and bone.

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Appendix A

Native American Outreach Correspondence

NATIVE AMERICAN HERITAGE COMMISSION

ACTING CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Sara Dutschke
Miwok

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

COMMISSIONER
Buffy McQuillen
Yokayo Pomo, Yuki, Nomlaki

COMMISSIONER
Wayne Nelson
Luiseño

COMMISSIONER
Stanley Rodriguez
Kumeyaay

COMMISSIONER
Vacant

COMMISSIONER
Vacant

COMMISSIONER
Vacant

EXECUTIVE SECRETARY
Raymond C. Hitchcock
Miwok, Nisenan

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

August 15, 2023

Mike Taggart
Taggart & Associates

Via Email to: taggart.mike@gmail.com

Re: Golden Triangle Development Project, Fresno County

Dear Mr. Taggart:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Cameron.vela@nahc.ca.gov.

Sincerely,

Cameron Vela

Cameron Vela
Cultural Resources Analyst
Attachment

Native American Outreach

Organization / Tribe	Contact	Initial Outreach	Response / Comments
Native American Heritage Commission	Pricilla Torres-Fuentes	7.17.23	NAHC responded via email on August 15, 2023, and stated that the Sacred Lands File search for the project site was negative. The NAHC also provided a list of 20 representatives from 11 Native American tribes who may have knowledge of cultural resources in the study area. The representatives identified by the NAHC were then contacted. Emails were sent to all representatives on August 16 with a brief letter attached and a map set of the project location.
Dumna Wo-Wah Tribal Government	Robert Ledger, Chairperson	8.16.23	No response received to-date.
North Fork Rancheria of Mono Indians	Fred Beihn, Chairperson	8.16.23	No response received to-date.
North Fork Rancheria of Mono Indians	Mary Stalter, Environmental / Heritage Manager	8.16.23	Email could not be delivered. Email to Chairperson delivered.
North Valley Yokuts Tribe	Timothy Perez,	8.16.23	No response received to-date.
North Valley Yokuts Tribe	Katherine Perez, Chairperson	8.16.23	No response received to-date.
Picayune Rancheria of the Chukchansi Indians	Michael Wynn, Tribal Administrator	8.16.23	No response received to-date.
Picayune Rancheria of the Chukchansi Indians	Heather Airey, Tribal Historic Preservation Officer	8.16.23	No response received to-date.
Picayune Rancheria of the Chukchansi Indians	Janet Bill, Chairperson	8.16.23	No response received to-date.
Table Mountain Rancheria	Brenda Lavell, Chairperson	8.16.23	No response received to-date.
Table Mountain Rancheria	Bob Pennell, Cultural Resource Director	8.16.23	No response received to-date.
Traditional Choinumni Tribe	David Alvarez, Chairperson	8.16.23	Email could not be delivered. Hard copy letter mailed 8/17/23.
Tule River Indian Tribe	Neil Peyron, Chairperson	8.16.23	No response received to-date.
Tule River Indian Tribe	Kerri Vera, Environmental Department	8.16.23	No response received to-date.
Tule River Indian Tribe	Joey Garfield, Tribal Archaeologist	8.16.23	No response received to-date.
Wuksachi Indian Tribe/Eshom Valley Band	Kenneth Woodrow, Chairperson	8.16.23	No response received to-date.
Dumna Wo-Wah Tribal Government	Robert Ledger, Chairperson	8.16.23	No response received to-date.
North Fork Rancheria of Mono Indians	Fred Beihn, Chairperson	8.16.23	No response received to-date.
North Fork Rancheria of Mono Indians	Mary Stalter, Environmental/Heritage Manager	8.16.23	No response received to-date.
North Valley Yokuts Tribe	Timothy Perez	8.16.23	No response received to-date.
North Valley Yokuts Tribe	Katherine Perez, Chairperson	8.16.23	No response received to-date.

Mike Taggart, RPA
2027 Sloat Way
Sacramento, CA
916-955-8074

August 15, 2023

Janet Bill, Chairperson
Picayune Rancheria of the Chukchansi Indians
P.O. Box 2226
Oakhurst, CA, 93644

Re: Golden Triangle Planned Commercial Center

Dear Chairperson Bill,

I am contacting you to share information about the proposed Golden Triangle Planned Commercial Center (PCC) and solicit any information you would like to share that may have bearing on the cultural resource assessment.

The Golden Triangle PCC is a proposed commercial development located in the City of Clovis and consists of approximately 37 acres, of which portions have already been developed consistent with the existing Master Plan. The present cultural resources assessment is focused on the proposed development boundary, which constitutes roughly 20 acres of the total project area. The City of Clovis is requiring the preparation of various environmental studies in compliance with the California Environmental Quality Act (CEQA).

The project area is located west of N. Clovis Avenue, south of Magill Avenue. State Route (SR) 168 bounds the project site on the northwest and the Clovis Old Town Trail roughly follows the southwest margin of the project area. The project site is situated in Section 5 of Township 13 south Range 21 east, as depicted on the *Clovis, CA* United States Geological Survey 7.5-minute topographic quadrangle. Vicinity and location maps are enclosed.

A range of methods are being used to identify cultural resources occurring within the project site including a records search at the Southern San Joaquin Information Center, review of published and gray literature, examining historic maps, a Sacred Lands File search by the California Native American Heritage Commission (NAHC), and an intensive field survey. Our efforts to-date have failed to identify any Native American-affiliated resources or historical resources.

As part of our efforts to identify cultural resources that could be affected by the proposed project, we are seeking the input of Tribal representatives. We would appreciate receiving any information you would like to share concerning resources of concern to your community. The sensitive nature of such information is acknowledged and will be treated accordingly.

Your response within two weeks would be most appreciated.

Sincerely,

Mike Taggart, RPA
Principal Archaeologist

Enclosure (maps)
CC: Michael Wynn, Tribal Administrator and Heather Airey, Tribal Historic Preservation Officer

Sample Letter

Appendix B

Records Search Results

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

7/24/2023

Mike Taggart
Taggart & Associates
2027 Sloat Way
Sacramento, CA 95818

Re: Golden Triangle Development
Records Search File No.: 23-282

The Southern San Joaquin Valley Information Center received your record search request for the project area referenced above, located on the Clovis USGS 7.5' quad. The following reflects the results of the records search for the project area and the 0.25 mile radius:

As indicated on the data request form, the locations of resources and reports are provided in the following format: ☒ custom GIS maps ☐ GIS data

Resources within project area:	P-10-006878, 006881
Resources within 0.25 mile radius:	19 Resources; - See List.
Reports within project area:	6 Reports; - See List.
Reports within 0.25 mile radius:	4 Reports; - See List.

Resource Database Printout (list):	☐ enclosed	☐ not requested	☐ nothing listed
Resource Database Printout (details):	☒ enclosed	☐ not requested	☐ nothing listed
Resource Digital Database Records:	☒ enclosed	☐ not requested	☐ nothing listed
Report Database Printout (list):	☐ enclosed	☒ not requested	☐ nothing listed
Report Database Printout (details):	☒ enclosed	☐ not requested	☐ nothing listed
Report Digital Database Records:	☒ enclosed	☐ not requested	☐ nothing listed
Resource Record Copies:	☒ enclosed	☐ not requested	☐ nothing listed
Report Copies:	☒ enclosed	☐ not requested	☐ nothing listed
OHP Built Environment Resources Directory:	☐ enclosed	☐ not requested	☒ nothing listed
Archaeological Determinations of Eligibility:	☒ enclosed	☐ not requested	☐ nothing listed
CA Inventory of Historic Resources (1976):	☐ enclosed	☐ not requested	☒ nothing listed

Caltrans Bridge Survey: Not available at SSJVIC; please see https://dot.ca.gov/programs/environmental-analysis/cultural-studies/california-historical-bridges-tunnels

Ethnographic Information: Not available at SSJVIC

Historical Literature: Not available at SSJVIC

Historical Maps: Not available at SSJVIC; please see http://historicalmaps.arcgis.com/usgs/

Local Inventories: Not available at SSJVIC

GLO and/or Rancho Plat Maps: Not available at SSJVIC; please see http://www.glorecords.blm.gov/search/default.aspx#searchTabIndex=0&searchByTypeIndex=1 and/or http://www.oac.cdlib.org/view?docId=hb8489p15p;developer=local;style=oac4;doc.view=items

Shipwreck Inventory: Not available at SSJVIC; please see https://www.slc.ca.gov/shipwrecks/

Soil Survey Maps: Not available at SSJVIC; please see http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.

Thank you for using the California Historical Resources Information System (CHRIS).

Sincerely,

Jeremy E David
Assistant Coordinator

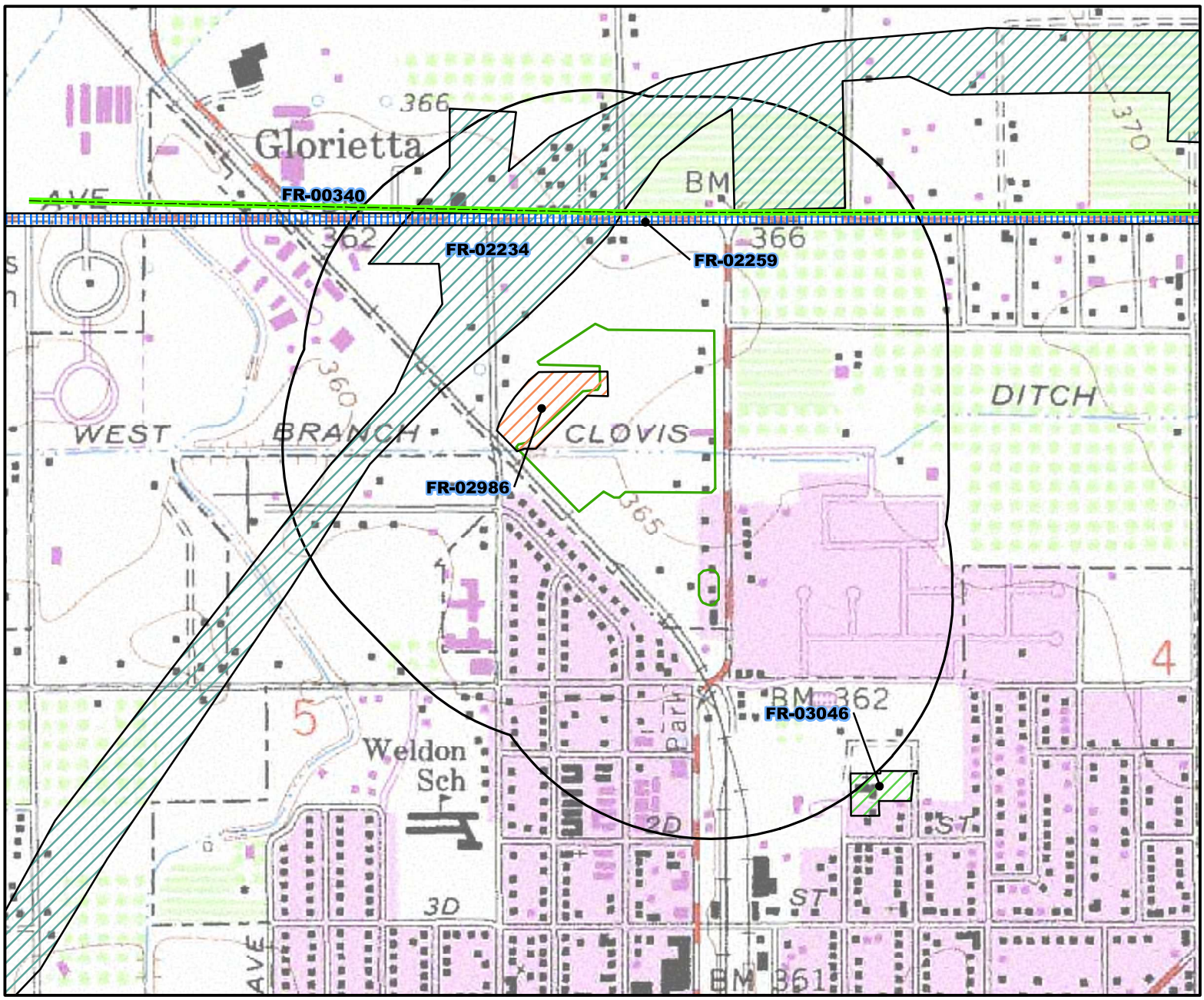
SSJVIC Record Search 23-282

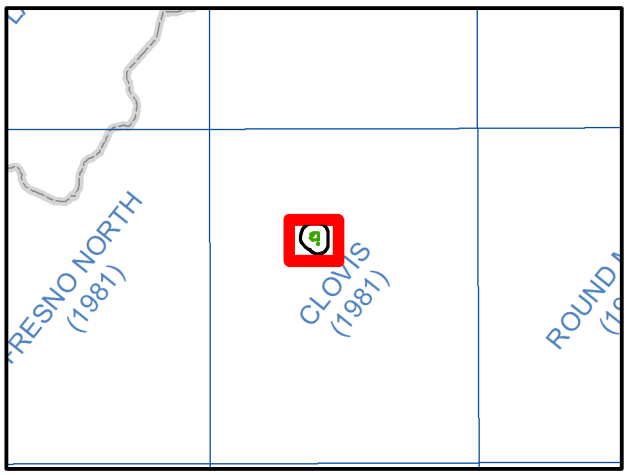
Reports in PA:	Reports in 0.25 Radius:	Resources in PA:	Resources in 0.25 Radius:
FR-00357	FR-00340	P-10-006878	P-10-003930
FR-00641	FR-02234	P-10-006881	P-10-006108
FR-01156	FR-02259		P-10-006876
FR-01162	FR-03046		P-10-006877
FR-02675			P-10-006879
FR-02986			P-10-006880
			P-10-006882
			P-10-006883
			P-10-006884
			P-10-006885
			P-10-006886
			P-10-006887
			P-10-006888
			P-10-006889
			P-10-006890
			P-10-006891
			P-10-006892
			P-10-006893
			P-10-007242

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





May depict confidential cultural resource locations. Do not distribute.

Map pages depicting no data have been excluded.

Project Area

Record Search radius

N W E S

0 0.05 0.1 0.2 Miles

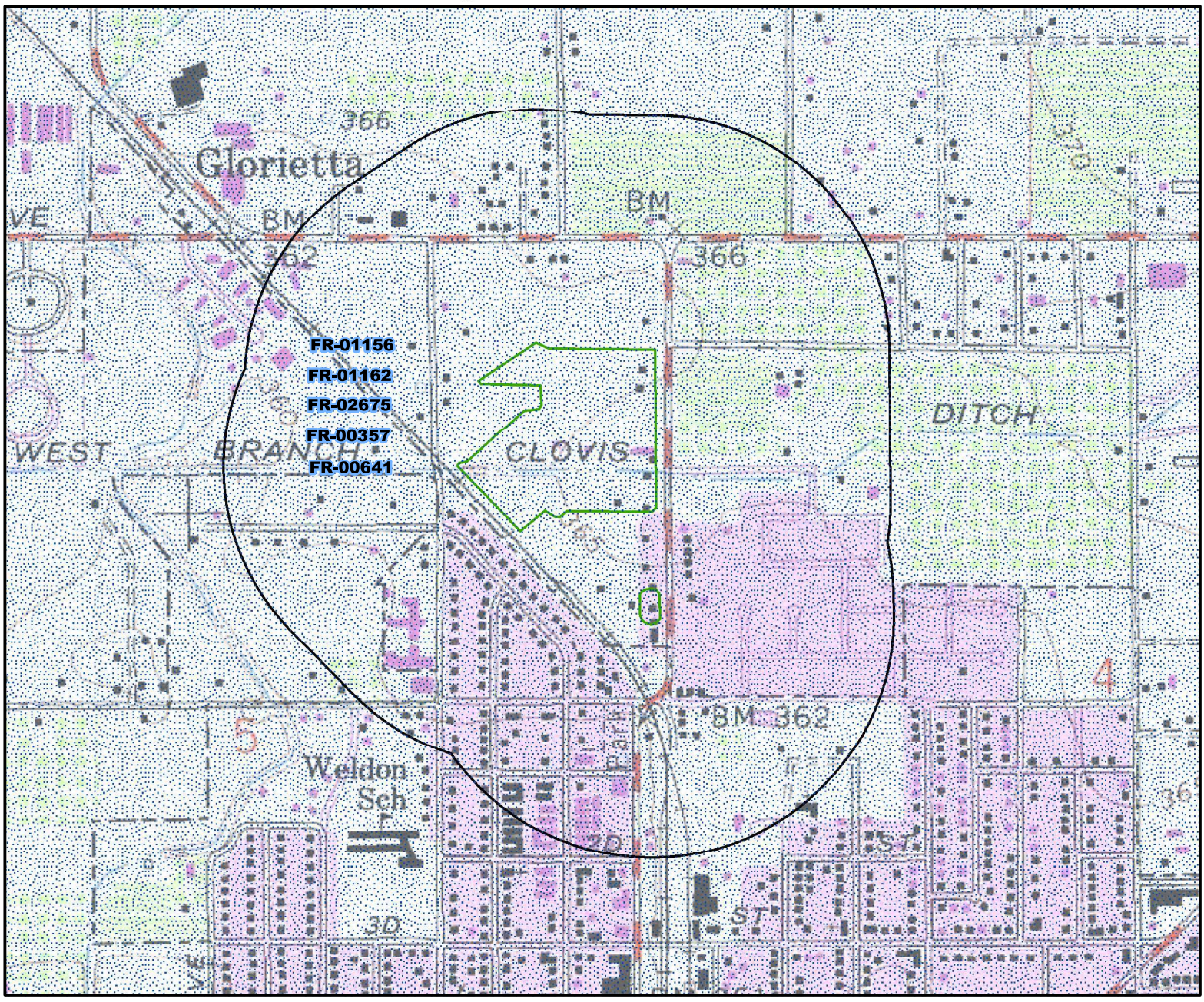
0 0.05 0.1 0.2 Kilometers

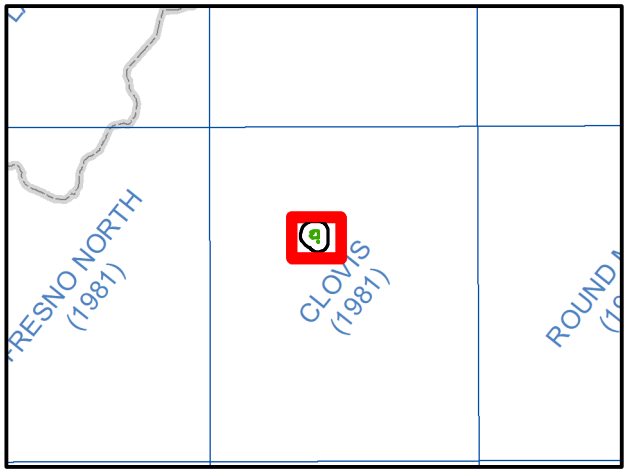
Reports Map
SSJV Information Center Record Search 23-282
Requester: Mike Taggart; Taggart & Associates
Project Name: Golden Triangle Development
USGS 7.5' Quad(s): Clovis
County: Fresno

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





May depict confidential cultural resource locations. Do not distribute.

Map pages depicting no data have been excluded.

Project Area

Record Search radius

N
W E
S

0 0.05 0.1 0.2 Miles

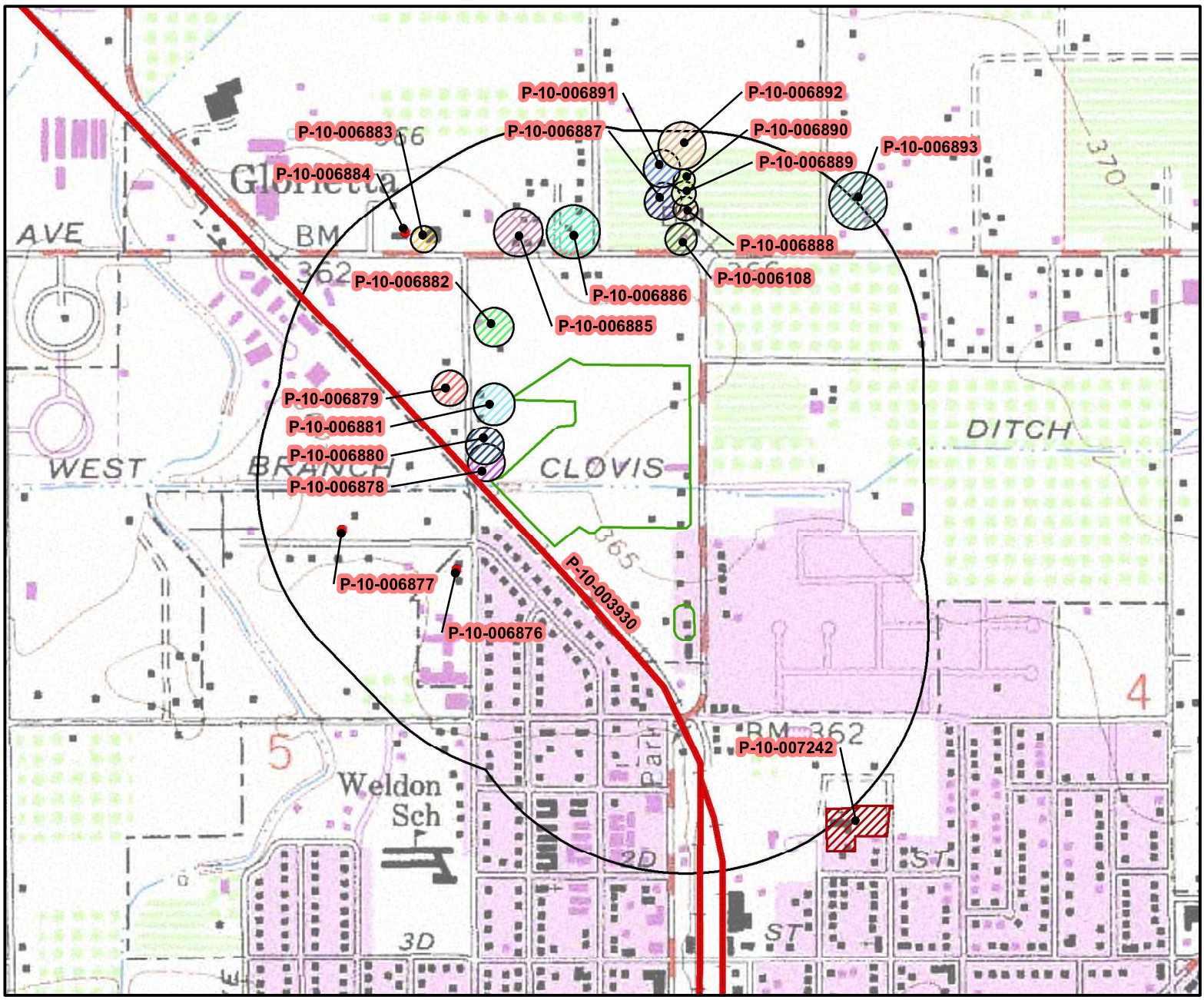
0 0.05 0.1 0.2 Kilometers

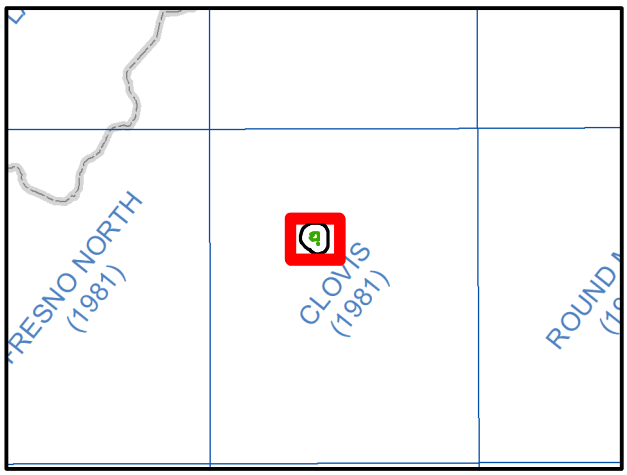
"Other" Reports Map
SSJV Information Center Record Search 23-282
Requester: Mike Taggart; Taggart & Associates
Project Name: Golden Triangle Development
USGS 7.5' Quad(s): Clovis
County: Fresno

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





May depict confidential cultural resource locations. Do not distribute.

Map pages depicting no data have been excluded.

Project Area

Record Search radius

N
W E
S

0 0.05 0.1 0.2 Miles

0 0.05 0.1 0.2 Kilometers

Resources Map
SSJV Information Center Record Search 23-282
Requester: Mike Taggart; Taggart & Associates
Project Name: Golden Triangle Development
USGS 7.5' Quad(s): Clovis
County: Fresno

SITE-NUMBER.	PRIMARY-NUM	NRS	EVL-DATE	PROGRAM REF.....	EVAL	OTHER NAMES AND NUMBERS.....
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FRE-001671	10-001671	2S	04/17/85	65007370	KPNP	DRY CREEK ONE
FRE-001680	10-001680	6Y	02/20/86	FERC820607a		PF-TS-4
FRE-001684	10-001684	6Y	10/05/94	FHWA921218B	GRPR	12-22-82-1
FRE-001691	10-001691	2S2	07/01/87	ADOE-10-87-003-00	NDPR	RBF-TS-11
		2	07/01/87	COE841203C		
FRE-001693	10-001693	2S2	07/01/87	ADOE-10-87-004-00	NDPR	RBF-TS-1
		2	07/01/87	COE841203C		
FRE-001734	10-001734	2S2	07/02/07	USFS050422A	WEPR	FS# 05-15-54-0479
FRE-001776H	10-001776	7	06/11/90	USFS900611C	RJPR	FS# 05-15-53-0832
FRE-001807H	10-001807	6Y	06/09/87	USFS870408B		FS# 05-13-51-0019, THE BOO
FRE-001811H	10-001811	6Y	06/09/87	USFS870408A		FS# 05-13-51-0127, STUMP MEADOW LOGGING SITE
FRE-001829H	10-001829	6Y	10/05/94	ADOE-10-94-001-00		RBF-TS IV
		6Y	10/05/94	FHWA921218B	GRPR	
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FRE-001849	10-001849	6Y	02/20/86	FERC820607a		FS# 05-15-53-0412, YMCA MEADOW
FRE-001894H	10-001894	6Y2	08/08/11	FERC110708A	ABPR	FS# 05-15-54-0687, KELLER RANCH
		6Y	11/12/97	ADOE-10-97-002-00	CCPR	HKB-1
		6Y	11/12/97	USFS970923C	CCPR	
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FRE-001968	10-001968	6Y	07/02/07	USFS050422A	WEPR	FS# 05-15-54-0655
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FRE-002039	10-002039	6Y	12/14/89	USFS891127J		FS# 05-15-53-0520
FRE-002183	10-002183	6Y	10/01/96	ADOE-10-96-015-00	GRPR	6-1-1
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FRE-002244	10-002244	1S	03/12/03	NPS-03000117-0000	KPNP	BIRDWELL ROCK PETROGYPH SITE, COALARG NO. 1
		3S	11/21/02	10-0015	MLRG	
FRE-002344H	10-002344	6Y	12/21/89	USFS891120A		FS# 05-13-51-0018, HUME LAKE COMM.SAWMILL DUMP
FRE-002345H	10-002345	6Y	12/21/89	USFS891120A		FS# 05-13-51-0215, BABYFACE HUME LK
FRE-002346H	10-002346	6Y	12/21/89	USFS891120A		FS# 05-13-52-0216, DUTCH BOY HUME LK
FRE-002413	10-002413	7	06/11/90	USFS900611C	RJPR	AUBERRY
FRE-002414	10-002414	7	06/11/90	USFS900611C	RJPR	
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FRE-002652		6Y	11/11/09	COE090506A	WEPR	
FRE-002653	~~B~~2653	2S2	05/12/09	COE090506A	WEPR	
FRE-002657	10-002657	6Y	10/05/94	FHWA921218B	GRPR	
FRE-002905H	10-002905	6Y	10/05/94	FHWA921218B	GRPR	ACADEMY POST OFFICE SR168-1
FRE-002928H		6Y2	04/11/11	USFS110307A	J2PR	FS# 05-15-53-1040, CAMP 71
FRE-002930H		6Y2	04/11/11	USFS110307A	J2PR	FS# 05-15-53-1048
FRE-003018H	10-003029	6Y	04/03/97	FHWA960805A	GRPR	
FRE-003026H	10-003037	6Y	06/16/98	ADOE-10-98-001-00	JWPR	OILFIELD DUMP
		6Y	06/16/98	FHWA980522B	JWPR	10-3037H
FRE-003088		6Y	06/12/03	ADOE-10-03-001-000	CCPR	
		6Y	06/12/03	FHWA030428A	CCPR	
FRE-003109H		7J	11/11/09	COE090506A	WEPR	SEGMENT OF SAN JOAQUIN VALLEY RAILROAD/POLLASKY GRADE
		6Y	05/12/09	COE090506A	WEPR	
FRE-003136		6Y	09/04/02	ADOE-10-02-001-000	MMPR	SAN JOAQUIN VALLEY RAILROAD TURNTABLE SITE
		6Y	09/04/02	FHWA011206A	MMPR	
FRE-003137		6Y	09/04/02	ADOE-10-02-002-000	MMPR	COMMERCIAL BLDG SITE
		6Y	09/04/02	FHWA011206A	MMPR	

Report Detail: FR-00340

SSJVIC Record Search 23-282

Identifiers

Report No.: FR-00340
Other IDs:
Cross-refs:

Citation information

Author(s): Varner, Dudley M.
Year: 1979 (Nov)
Title: An Archaeological Reconnaissance Along Herndon Avenue between Villa and State Highway 168, Fresno County, California
Affliliation: California State University, Fresno
No. pages: 40
No. maps: 10
Attributes: Archaeological, Field study
Inventory size: 2.25 linear miles
Disclosure: Not for publication
Collections: No

General notes

NEGATIVE

Associated resources

No. resources: 0
Has informals: No

Location information

County(ies): Fresno
USGS quad(s): Clovis
Address:
PLSS: T12S R21E Sec. 32, 33, 34 MDBM

Database record metadata

	Date	*User*
Entered:	8/6/2014	user
Last modified:	3/18/2016	user1

IC actions:	*Date*	*User*	*Action taken*
	8/6/2014	user	report entered: cls
	3/18/2016	user1	Entered report: MMB

Record status: Database Complete

Report Detail: FR-00357

SSJVIC Record Search 23-282

Identifiers

Report No.: FR-00357
Other IDs:
Cross-refs:

Citation information

Author(s): Crist, Michael K. and Varner, Dudley M.
Year: 1981 (May)
Title: Archaeological Overview and Locational Analysis of the Fresno Area
Affliliation: California State University, Fresno
No. pages: 94
No. maps: 5
Attributes: Other research
Inventory size:
Disclosure: Not for publication
Collections: No

General notes

Associated resources

	Primary No.	*Trinomial*	*Name*
	P-10-001014	CA-FRE-001014	B-2-P

No. resources: 1
Has informals: No

Location information

County(ies): Fresno
USGS quad(s): ~All quads - Fresno Co.
Address:
PLSS:

Database record metadata

	Date	*User*
Entered:	3/21/2016	user1
Last modified:	5/17/2019	jdavid

IC actions:	*Date*	*User*	*Action taken*
	3/21/2016	user1	Entered report: MMB
	5/17/2019	jdavid	Added resource

Record status: Database Complete

Report Detail: FR-00641

SSJVIC Record Search 23-282

Identifiers

Report No.: FR-00641
Other IDs:
Cross-refs:

Citation information

Author(s): Peck, Billy J.
Year: 1977 (Dec)
Title: The Distribution of Aboriginal Occupational Sites in Fresno County, California
Affliliation: California State University, Fresno
No. pages: 25
No. maps: 3
Attributes: Other research
Inventory size:
Disclosure: Not for publication
Collections: No

General notes

NEGATIVE

Associated resources

No. resources: 0
Has informals: No

Location information

County(ies): Fresno
USGS quad(s): ~All quads - Fresno Co.
Address:
PLSS:

Database record metadata

	Date	*User*
Entered:	3/29/2016	user1
Last modified:	3/29/2016	user1

IC actions:	*Date*	*User*	*Action taken*
	3/29/2016	user1	Entered report: MMB

Record status: Database Complete

Report Detail: FR-01156

SSJVIC Record Search 23-282

Identifiers

Report No.: FR-01156
Other IDs:
Cross-refs:

Citation information

Author(s): Unknown
Year: 1968 (Dec)
Title: A Proposal for an Archaeological Element in the Fresno County, General Plan
Affliliation: Committee on Sierra Foothills Public Archaeology
No. pages: 23
No. maps: 0
Attributes: Archaeological, Management/planning
Inventory size:
Disclosure: Not for publication
Collections: No

General notes

NEGATIVE

Associated resources

No. resources: 0
Has informals: No

Location information

County(ies): Fresno
USGS quad(s): ~All quads - Fresno Co.
Address:
PLSS:

Database record metadata

	Date	*User*
Entered:	4/14/2016	user1
Last modified:	4/14/2016	user1

IC actions:	*Date*	*User*	*Action taken*
	4/14/2016	user1	Entered report: MMB

Record status: Database Complete

Report Detail: FR-01162

SSJVIC Record Search 23-282

Identifiers

Report No.: FR-01162
Other IDs:
Cross-refs:

Citation information

Author(s): Stuart, David R.
Year: 1990 (Jan)
Title: A Summary of the Present Archaeological Resources of Fresno County
Affliliation: California Department of Parks and Recreation
No. pages: 5
No. maps: 1
Attributes: Other research
Inventory size:
Disclosure: Not for publication
Collections: No

General notes

NEGATIVE - Date not listed, date used above is a placeholder

Associated resources

No. resources: 0
Has informals: No

Location information

County(ies): Fresno
USGS quad(s): ~All quads - Fresno Co.
Address:
PLSS:

Database record metadata

	Date	*User*
Entered:	4/15/2016	user1
Last modified:	4/15/2016	user1

IC actions:	*Date*	*User*	*Action taken*
	4/15/2016	user1	Entered report: MMB

Record status: Database Complete

Report Detail: FR-02234

SSJVIC Record Search 23-282

Identifiers

Report No.: FR-02234

Other IDs:	*Type*	*Name*
	Caltrans	EA 06255-342200

Cross-refs:

Citation information

Author(s): Hack, Sheryl
Year: 1992 (Mar)
Title: Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California
Affiliation: Woodward-Clyde Consultants
No. pages: 25
No. maps: 4
Attributes: Architectural/Historical, Field study
Inventory size:
Disclosure: Not for publication
Collections: No

Sub-desig.: A
Author(s): Smith, Ephraim
Year: 1991 (Sep)
Title: Historic Architectural Survey Report for the Route 168 Urban Project, Fresno County, California, Exhibit D
Affiliation: CSU Fresno
Report type(s): Architectural/Historical, Field study
Inventory size:
No. pages: 189
Disclosure: Not for publication
Collections: No
PDF Pages: 104-292

Sub-desig.: B
Author(s): Reiss, Ronald B.
Year: 1992 (Feb)
Title: Supplementary Historical Architectural Survey Report for the Route 168 Urban Project, Fresno County, California
Affiliation: Architectural Resources Group
Report type(s): Architectural/Historical, Field study
Inventory size:
No. pages: 24
Disclosure: Not for publication
Collections: No
PDF Pages: 81-103

Sub-desig.: C
Author(s): Snyder, John
Year: 1992 (Feb)
Title: Historic Architectural Survey Report - MOU Short Form, for the Route 168 Urban Project, Fresno County, California
Affiliation: Caltrans
Report type(s): Architectural/Historical, Field study
Inventory size:
No. pages: 10
Disclosure: Not for publication
Collections: No
PDF Pages: 71-80

Report Detail: FR-02234

SSJVIC Record Search 23-282

Sub-desig.: D
Author(s): Hack, Sheryl
Year: 1992 (May)
Title: Historic Architectural Survey Report #1 for the Route 168 Urban Project, Fresno County, California
Affiliation: Woodward-Clyde Consultants
Report type(s): Architectural/Historical, Field study
Inventory size:
No. pages: 35
Disclosure: Not for publication
Collections: No
PDF Pages: 36-70

Sub-desig.: E
Author(s): Price, Barry
Year: 1992 (May)
Title: Negative Archaeological Survey Report for the Route 168 Urban Project, Fresno County, California
Affiliation: Infotec
Report type(s): Archaeological, Field study
Inventory size:
No. pages: 5
Disclosure: Not for publication
Collections: No
PDF Pages: 26-35

General notes

Associated resources

Primary No.	*Trinomial*	*Name*
P-10-006106		Livonia and Horace Riggs Resid
P-10-006107		Rollie Argent House
P-10-006108		Thomas Howison Residence
P-10-006110		Truman Kahler Property; Flume
P-10-006533		Donaghy House
P-10-006534		Foley House
P-10-006535		Peterson House
P-10-006536		S-08
P-10-006537		S-09
P-10-006538		Joseph Knight House
P-10-006539		S-10
P-10-006540		Summers House
P-10-006541		Mathers House
P-10-006542		Crawford House
P-10-006543		Bruce House
P-10-006544		Bollinger House
P-10-006545		Houston House
P-10-006546		S-43
P-10-006547		S-44
P-10-006548		S-45
P-10-006549		Cape House
P-10-006550		Harris House
P-10-006551		S-49
P-10-006552		S-50
P-10-006553		S-51
P-10-006554		S-52
P-10-006555		Cresey House
P-10-006556		S-16
P-10-006557		Bodtcher House

P-10-006558	Foster House
P-10-006559	Lesher House
P-10-006560	Thompson House
P-10-006561	S-21
P-10-006562	Semple House
P-10-006563	Campbell House
P-10-006564	Martin House
P-10-006565	S-53
P-10-006566	Waddell House
P-10-006567	Brainard House
P-10-006568	S-56
P-10-006569	S-57
P-10-006570	S-58
P-10-006571	S-59
P-10-006572	S-60
P-10-006573	S-61
P-10-006574	S-62
P-10-006575	S-63
P-10-006576	S-04
P-10-006577	S-05
P-10-006578	Steavens House
P-10-006579	Caesar House
P-10-006580	S-26
P-10-006581	S-64
P-10-006582	S-65
P-10-006583	S-66
P-10-006584	S-67
P-10-006585	S-27
P-10-006586	S-28
P-10-006587	S-36
P-10-006588	S-37
P-10-006589	S-38
P-10-006590	S-39
P-10-006591	Iglesia Santa Pentacostas "Hore
P-10-006592	S-29
P-10-006593	Fibreboard Box and Millwork Cor
P-10-006594	S-31
P-10-006595	S-32
P-10-006596	S-33
P-10-006597	St. Martin of Tours Church and C
P-10-006598	S-40
P-10-006599	S-68
P-10-006600	S-69
P-10-006601	S-70
P-10-006788	Margerite H. Rittenhouse Home
P-10-006789	James W. Jolly Home
P-10-006790	John Hendershot Home
P-10-006791	Asle C. Green Home
P-10-006792	Claude L. Kirkner Home
P-10-006793	Triplex Apartments
P-10-006794	Robert E. Jolly Construction Co
P-10-006795	A.F. Archie Huston Home
P-10-006796	Joseph L. McCall Home
P-10-006797	M.L. Williams Home
P-10-006798	W.E. Crane Home
P-10-006799	George Lobdell Home
P-10-006800	Albert N. Reid Home
P-10-006801	Marcus King Home
P-10-006802	Ooadis Speir Home

P-10-006803	Mrs. Grace Schroeder Home
P-10-006804	Levi Smith Home
P-10-006805	William Henry Ulsh Home
P-10-006806	Frank R. Lewis
P-10-006807	James W. Carter Home
P-10-006808	Herbert L. Caskey Home
P-10-006809	Donald O. Trainer Home
P-10-006810	F.C. Emmert Home
P-10-006811	Jacob J. Lindblom Home
P-10-006812	Thomas E. West Home
P-10-006813	Rudolph Ruiz Home
P-10-006814	Hiram G. Hughes Home
P-10-006815	Granville D. Edwards Home
P-10-006816	Albert Yocham Home
P-10-006817	John B. Wilson Home
P-10-006818	Ralph L. Leeds Home
P-10-006819	Prudencio Sotelo Home
P-10-006820	The Reverend Howard Call Hom
P-10-006821	The Charles W. Davis Home
P-10-006822	Kenneth McClure Home
P-10-006823	Elmer Leong Home
P-10-006824	A. Sanoian Rental
P-10-006825	Clarence F. Foster Home
P-10-006826	John A. Chase Home
P-10-006827	McCoy Thornton
P-10-006828	Jasper A. Kingham
P-10-006829	William A. Sanders
P-10-006830	The Carl Patterson Home
P-10-006831	Marvin Castillo Home
P-10-006832	T.C. Thornton Home
P-10-006833	Clarence Hagen Home
P-10-006834	Clinton E. Haas Home
P-10-006835	Allen O. Johnson Home
P-10-006836	J.H. Barnes Home
P-10-006837	Leo T. Kerner Home
P-10-006838	D.L. "Daindie" Twileager Home
P-10-006839	Burton W. Dickey Home
P-10-006840	Harvey W. Freeman Home
P-10-006841	Esther B Prince Home
P-10-006842	James T. Cook Home
P-10-006843	Steve O'Hano Home
P-10-006844	1480 North Barton Ave
P-10-006845	Mary S. Urrutia Home
P-10-006846	G.B. Baker Home
P-10-006847	Lloyd D. Rogers Home
P-10-006848	Sacred Heart School
P-10-006849	Silvina Nieto Charlesworth Home
P-10-006850	August R. Nieto Home
P-10-006851	Webb V. Hyatt and Poultry Farm
P-10-006852	Jerry Vsetula Home
P-10-006853	George A. Higgins Home
P-10-006854	Edna Harrell Rental Property
P-10-006855	Garabed M. Nishkian Home
P-10-006856	Robert Whitaker Home
P-10-006857	Max Neunzig Home
P-10-006858	Harvey W. Johnsen Home
P-10-006859	Charles E. Sickler Home
P-10-006860	J. Albert Stebbins
P-10-006861	B.A. Clay / B.W. Fiedler Home

P-10-006862	Arthur Dresser Residential Prope
P-10-006863	Henry Kachadoorian Bungalow
P-10-006864	The Bonds Residence
P-10-006865	Hobson and Ruth Brooks Reside
P-10-006866	John Stefka Residence
P-10-006867	584 Villa
P-10-006868	Linzie Ewing Residence
P-10-006869	Hilda Weston Residence
P-10-006870	The Della Weston Residence
P-10-006871	Urban L. Jensen Residence
P-10-006872	Hammer Field Barracks
P-10-006873	Ollie and Louise Jensen Residen
P-10-006874	The Olga and Lloyd Bridges Ho
P-10-006875	Livonia and Horace Riggs Resid
P-10-006876	Clarence Petersen Home
P-10-006877	Ben Borunda Residence
P-10-006878	Carl Polson Residence
P-10-006879	Yard Office
P-10-006880	Shelton Residence
P-10-006881	The Leonard Isaac and Oyier Re
P-10-006882	Morrison Residence
P-10-006883	Clovis Hi-Tech Automotive
P-10-006884	Jimbo's Bar, All Around Better Tr
P-10-006885	Bill Crowell Dairy
P-10-006886	Crowell Barn-Residence
P-10-006887	Elva Barrett Residence
P-10-006888	The Louis Gibson Residence
P-10-006889	The Flloyd C. Bishop Home
P-10-006890	Sean King Residence
P-10-006891	Bart and Rebecca King Residen
P-10-006892	The Bart King Rental Residence
P-10-006893	The Clovis First Baptist Parsona
P-10-006894	John Gore Residence
P-10-006895	Ernest and Hazel Wolf Residenc
P-10-006896	Bowen Sheds
P-10-006897	Pickup Residence
P-10-006898	Maurice Olivero Tankhouse
P-10-006899	Dr. Gerald Nyder Residence
P-10-006900	Raisin Dehydrator
P-10-006901	Russell F. Bibler Jr. Home
P-10-006902	Russell F. Bibler Sr. Home
P-10-006903	Frank R. Escobedo Home
P-10-006904	John Graner Home
P-10-006905	Lauren R. Turck Home

No. resources: 191

Has informals: No

Location information

County(ies): Fresno

USGS quad(s): Clovis, Fresno North

Address:

PLSS:

Database record metadata

	Date	*User*
Entered:	7/19/2013	ssjvic
Last modified:	6/10/2022	jdavid5

IC actions:	*Date*	*User*	*Action taken*
	5/31/2016	user1	Entered report: MMB

	3/22/2017	User	merged all project reports with same EA no: cls

Record status: Database Complete

Report Detail: FR-02259

SSJVIC Record Search 23-282

Identifiers

Report No.: FR-02259

Other IDs:	*Type*	*Name*
	Submitter	STPL 5208(069)

Cross-refs:

Citation information

Author(s): Baloian, Randy

Year: 2006 (Sep)

Title: Historical Resources Evaluation Report and Archaeological Survey Report for the Herndon Avenue Widening Project Between Willow and Minnewawa in Clovis, Fresno County, California

Affliliation: Applied EarthWorks, Inc.

No. pages: 17

No. maps: 3

Attributes: Archaeological, Architectural/Historical, Evaluation, Field study

Inventory size: 21 acres

Disclosure: Not for publication

Collections: No

General notes

Associated resources

No. resources: 0

Has informals: Yes

Location information

County(ies): Fresno

USGS quad(s): Clovis

Address:

PLSS: T12S R21E Sec. 31, 32 MDBM
T13S R21E Sec. 5, 6 MDBM

Database record metadata

	Date	*User*
Entered:	6/2/2016	user1
Last modified:	6/2/2016	user1

IC actions:	*Date*	*User*	*Action taken*
	6/2/2016	user1	Entered report: MMB

Record status: Database Complete

Report Detail: FR-02675

SSJVIC Record Search 23-282

Identifiers

Report No.: FR-02675

Other IDs:	*Type*	*Name*
	Submitter	SWCA Project No. 022459.00
	Submitter	SWCA Cultural Resources Report Database No. 2012-4

Cross-refs:

Citation information

Author(s): Treffers, Stevan and Dietler, John

Year: 2012 (Dec)

Title: Cultural Resources Study in Support of the Clovis General Plan Update Environmental Impact Report, City of Clovis, Fresno County, California

Affliliation: SWCA Environmental Consultants

No. pages: 69

No. maps: 3

Attributes: Archaeological, Management/planning

Inventory size:

Disclosure: Not for publication

Collections: No

General notes

Associated resources

No. resources: 0

Has informals: Yes

Location information

County(ies): Fresno

USGS quad(s): Academy, Clovis, Friant, Round Mountain

Address:

PLSS:

Database record metadata

	Date	*User*
Entered:	3/23/2015	user
Last modified:	6/21/2016	user1

IC actions:	*Date*	*User*	*Action taken*
	3/23/2015	user	report entered: cls
	3/23/2015	user	report mapped: cls

Record status: Database Complete

Report Detail: FR-02986

SSJVIC Record Search 23-282

Identifiers

Report No.: FR-02986
Other IDs:
Cross-refs:

Citation information

Author(s): Montgomery, Courtney
Year: 2019 (Sep)
Title: Clovis Tru Hotel Cultural Resources Assessment Accessor Parcel Numbers 491-030-019 and 491-030-028 Clovis, California
Affliliation: Soar Environmental Consulting
No. pages: 26
No. maps: 4
Attributes: Archaeological, Field study
Inventory size: 3.53 acres
Disclosure: Not for publication
Collections: No

General notes

18 potential historic cultural materials were found on the south end of the project site.

Associated resources

No. resources: 0
Has informals: Yes

Location information

County(ies): Fresno
USGS quad(s): Clovis

Address: Address	*City*	*Assessor's parcel no.*	*Zip code*
	Clovis	491-030-019	
	Clovis	491-030-028	

PLSS: T13S R21E Sec. 5 MDBM

Database record metadata

	Date	*User*
Entered:	6/19/2020	cthomson
Last modified:	6/19/2020	cthomson

IC actions:	*Date*	*User*	*Action taken*
	6/19/2020	cthomson	Entered
	6/19/2020	cthomson	Verified

Record status: Verified

Report Detail: FR-03046

SSJVIC Record Search 23-282

Identifiers

Report No.: FR-03046

Other IDs:	*Type*	*Name*
	Other	LSA Project No. FLI1801

Cross-refs:

Citation information

Author(s): Vallarie, Katie and Falke, Mariko
Year: 2018 (Oct)
Title: Cultural Resources Study for the Proposed Residential Projet at Osmun Avenue and Second Street
Affliliation: LSA Associates Inc.
No. pages: 56
No. maps: 10
Attributes: Archaeological, Architectural/historical, Field study
Inventory size: 1.6 acres
Disclosure: Not for publication
Collections: No

General notes

Associated resources

	Primary No.	*Trinomial*	*Name*
	P-10-007242		Clovis Foursquare Church; 135

No. resources: 1
Has informals: No

Location information

County(ies): Fresno
USGS quad(s): Clovis

Address:	*Address*	*City*	*Assessor's parcel no.*	*Zip code*
	135 Osmun Avenue	Clovis		93612
	147 Osmun Avenue	Clovis		93612

PLSS: T13S R21E Sec. 4 MDBM

Database record metadata

	Date	*User*
Entered:	11/23/2021	kprince4
Last modified:	1/18/2022	jdavid5

IC actions:	*Date*	*User*	*Action taken*
	11/23/2021	kprince4	Entered

Record status: Verified

Resource Detail: P-10-003930

SSJVIC Record Search 23-282

Identifying information

Primary No.: P-10-003930
Trinomial: CA-FRE-003109H
Name: Southern Pacific Railroad
Other IDs:

Type	*Name*
Resource Name	Southern Pacific Railroad

Cross-refs:
Extends into another county as 15-002050
Extends into another county as 16-000122
Extends into another county as 54-004626
Physically overlaps or intersects 10-004678
Physically overlaps or intersects 10-005166
Physically overlaps or intersects 10-006130
Physically overlaps or intersects 10-006640
Physically overlaps or intersects 10-007227
Physically overlaps or intersects 10-007351
See also 10-007254
See also 10-007257
Subsumes 10-003199
Subsumes 10-005160
Subsumes 10-005804
Subsumes 10-005807
Subsumes 10-005810
Subsumes 10-006034
Subsumes 10-006128

Attributes

Resource type: Structure
Age: Historic
Information base: Survey
Attribute codes: AH07 (Roads/trails/railroad grades); HP11 (Engineering structure)
Disclosure: Not for publication
Collections: No
Accession no(s):
Facility:

General notes

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
3/5/1998	W.L. Norton	Jones & Stokes	[SUPPLEMENT]
1/18/1999	S. Hooper, S. Flint	Applied EarthWorks, Inc.	[UPDATE]
10/25/2002	Peggy B. Murphy	Three Girls and a Shovel	[UPDATE]
1/14/2004	Bryan Larson, Cindy Toffelmier	JRP Historical Consulting	[SUPPLEMENT]
2/11/2009	Joseph Freeman, Rebecca Flores	JRP Historical Consulting	[SUPPLEMENT]
2/10/2009	Joseph Freeman, Rebecca Flores	JRP Historical Consulting	[SUPPLEMENT]
2/9/2009	Joseph Freeman, Rebecca Flores	JRP Historical Consulting	[SUPPLEMENT]
1/7/2010	Michael Hibma	LSA Associates	[SUPPLEMENT]
12/1/2013	Randy Baloian	Applied Earthworks, Inc.	[UPDATE]
8/17/2015	Randy Baloian	Applied Earthworks, Inc.	[UPDATE]
6/14/2016	J. Tibbet	Applied EarthWorks, Inc.	[SUPPLEMENT]
2/8/2015	Randy Baloian	Applied EarthWorks, Inc.	[SUPPLEMENT}
5/21/2018	Annie McCausland	Applied EarthWorks, Inc.	[UPDATE]

6/1/2018	Jessica Jones	Applied EarthWorks, Inc.	[SUPPLEMENT]
2/17/2021	Morgan Bird	SWCA Environmental Consultants	[SUPPLEMENT]

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
FR-00238	1999	Archaeological Survey Report for the Friant Road Improvement Project, Fresno County, California	Applied EarthWorks, Inc.
FR-01770	2001	Archaeological Survey Report for the Friant Road Improvement Project Fresno County, California	Applied EarthWorks, Inc.
FR-01771	2001	Historic Property Survey Reprot for the Friant Road Improvement Project, Fresno County, California	Applied EarthWorks, Inc.
FR-01772	2001	Historic Study Report for the Friant Road Improvement Project, Fresno County, California	Applied EarthWorks, Inc.
FR-02642	2014	Historic Property Survey Report for the American Avenue Reconstruction and Rehabilitation State Route 99 to Temperance Avenue, Fresno County, California	Applied EarthWorks, Inc.
FR-02726	2015	Cultural Resources Inventory and Evaluation for the First Lift Canal Relining Project, Shaw Avenue to Highway 33, Fresno County, California	Applied EarthWorks, Inc.
FR-02769	2016	Cultural Resources Inventory and Evaluation for the Central Valley Power Connect Project, Fresno, Kings, and Madera Counties, California	Applied EarthWorks
FR-02847	2016	Cultural Resources Inventory for the City of Huron Recycled Wastewater Project, Fresno County, California	Applied EarthWorks, Inc.
FR-02942	2018	Cultual Resource Inventory and Evaluation for the Biola Community Services District Recycled Water Improvements Feasibility Study, Fresno County, California	Applied EarthWorks, Inc.
FR-03037	2018	Historic Properties Inventory and Evaluation for City of San Joaquin Wells 4 and 6 Manganese Treatment and Distribution Pipeline Project, Fresno County, California	Applied EarthWorks, Inc.
FR-03103	2021	Historic Property Survey Report City of Coalinga Trails Master Plan (TMP)	SWCA Environmental Consultants

Location information

County: Fresno

USGS quad(s): Burrel, Coalinga, Conejo, Dos Palos, Firebaugh, Five Points, Fresno North, Fresno South, Friant, Guijarral Hills, Helm, Herndon, Huron, Jamesan, Kearney Park, Kerman, Malaga, Mendota Dam, Oxalis, Poso Farm, Reedley, Riverdale, San Joaquin, Sanger, Tranquillity, Vanguard, Wahtoke, Westhaven

Address:

PLSS: T11S R21E Sec. 7 MDBM
T11S R21E Sec. 18 MDBM
T11S R21E Sec. 19 MDBM
T11S R21E Sec. 30 MDBM
T11S R21E Sec. 31 MDBM
T11S R21E Sec. 36 MDBM
T12S R21E Sec. 1 MDBM
T20S R15E SE¼ of SW¼ of Sec. 26 MDBM
T15S R21E Sec. 5 MDBM
T15S R21E Sec. 6 MDBM
T14S R21E Sec. 31 MDBM

UTMs: Zone 11 256760mE 4089100mN NAD83 (NAD not listed)
Zone 11 256910mE 4090460mN NAD83 (NAD not listed)
Zone 11 257140mE 4091800mN NAD83 (NAD not listed)

Zone 11 257370mE 4093180mN NAD83 (NAD not listed)
Zone 11 257200mE 4094600mN NAD83 (NAD not listed)
Zone 11 257960mE 4095720mN NAD83 (NAD not listed)
Zone 11 258370mE 4096200mN NAD83 (NAD not listed)
Zone 10 620741mE 8604003mN NAD83 (NAD not listed)
Zone 10 100742mE 8804003mN NAD83 (NAD not listed)
Zone 11 256783mE 4061268mN NAD83 (North)
Zone 11 257249mE 4060708mN NAD83 (South)
Zone 10 751724mE 4054732mN NAD83 ((NW End) 6/1/2018)
Zone 10 751919mE 4054575mN NAD83 ((SE End) 6/1/2018)

Management status

Database record metadata

	Date	*User*	
Entered:	10/23/2013	ssjvic	
Last modified:	5/11/2023	kprince4	
IC actions:	*Date*	*User*	*Action taken*
	10/12/2014	user	Entered location, updated events: MMB
	12/17/2015	user1	subsumed all Southern Pacific records: cls
	1/25/2023	jdavid5	Entered Supplement
	10/23/2013	ssjvic	resource entered: cls
	9/16/2017	User	entered supplement: cls
	12/21/2022	kprince4	PDF Rescanned
	3/14/2019	User	Entered Update: JD
	4/19/2019	cthomson	Verified
	2/3/2023	cthomson	Verified
	7/20/2021	jdavid5	Entered Supplement
	8/25/2021	cthomson	Verified
	1/11/2023	jdavid5	PDF Verified
Record status:	Verified		

Resource Detail: P-10-006108

SSJVIC Record Search 23-282

Identifying information

Primary No.: P-10-006108
Trinomial:
Name: Thomas Howison Residence
Other IDs:

Type	*Name*
Resource Name	Thomas Howison Residence

Cross-refs:

Attributes

Resource type: Building
Age: Historic
Information base: Unknown
Attribute codes: HP02 (Single family property)
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

appears eligible for the National Register; According to aerials, address no longer exists and the building is likely destroyed.

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
2/6/1992	Gloria Scott	Caltrans	
2/25/1991	E.K. Smith, A.A. Austin	CSU Fresno	SUPPLEMENT

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
FR-02234	1992	Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California	Woodward-Clyde Consultants
FR-02283	1991		California State University, Fresno

Location information

County: Fresno
USGS quad(s): Clovis
Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
404 North Clovis	Clovis	304-180-14	90274

PLSS: T12S R21E Sec. 32 MDBM
UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	8/6/2014	user	
Last modified:	2/17/2023	jdavid5	
IC actions:	*Date*	*User*	*Action taken*
	10/24/2016	User	entered supplement: cls
	10/24/2016	User	mapped: cls
	8/6/2014	user	resource entered: cls
	6/6/2022	kprince4	Added Note
	2/17/2023	jdavid5	PDF Verified
	2/16/2023	kprince4	PDF Rescanned

Record status: Database Complete

Resource Detail: P-10-006876

SSJVIC Record Search 23-282

Identifying information

Primary No.: P-10-006876
Trinomial:
Name: Clarence Petersen Home
Other IDs:

Type	*Name*
Resource Name	Clarence Petersen Home

Cross-refs:

Attributes

Resource type: Building
Age: Historic
Information base: Survey
Attribute codes: HP02 (Single family property)
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
3/10/1991	E.K. Smith, A.A. Austin	CSU Fresno	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
FR-02234	1992	Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California	Woodward-Clyde Consultants
FR-02283	1991		California State University, Fresno

Location information

County: Fresno
USGS quad(s): Clovis
Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
140 North DeWitt	Clovis	491-100-06S	93612

PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	10/21/2016	User	
Last modified:	3/17/2023	jdavid5	
IC actions:	*Date*	*User*	*Action taken*
	10/21/2016	User	resource entered: cls
	10/21/2016	User	resource mapped: cls
	3/15/2023	kprince4	PDF Rescanned
	3/17/2023	jdavid5	PDF Verified

Record status: Database Complete

Resource Detail: P-10-006877

SSJVIC Record Search 23-282

Identifying information

Primary No.: P-10-006877
Trinomial:
Name: Ben Borunda Residence
Other IDs:

Type	*Name*
Resource Name	Ben Borunda Residence

Cross-refs:

Attributes

Resource type: Building
Age: Historic
Information base: Survey
Attribute codes: HP02 (Single family property)
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
4/26/1991	E.K. Smith, A.A. Austin	CSU Fresno	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
FR-02234	1992	Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California	Woodward-Clyde Consultants
FR-02283	1991		California State University, Fresno

Location information

County: Fresno
USGS quad(s): Clovis
Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
219 Polson	Fresno	491-100-02S	93612

PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	10/21/2016	User	
Last modified:	3/17/2023	jdavid5	
IC actions:	*Date*	*User*	*Action taken*
	10/21/2016	User	resource entered: cls
	10/21/2016	User	resource mapped: cls
	3/15/2023	kprince4	PDF Rescanned
	3/17/2023	jdavid5	PDF Verified

Record status: Database Complete

Resource Detail: P-10-006878

SSJVIC Record Search 23-282

Identifying information

Primary No.: P-10-006878
Trinomial:
Name: Carl Polson Residence
Other IDs:

Type	*Name*
Resource Name	Carl Polson Residence

Cross-refs:

Attributes

Resource type: Site
Age: Historic
Information base: Survey
Attribute codes: AH02 (Foundations/structure pads)
Disclosure: Not for publication
Collections: No
Accession no(s):
Facility:

General notes

Based on aerials, Building is likely to have been destroyed.

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
3/8/1991	E.K. Smith, A.A. Austin	CSU Fresno	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
FR-02234	1992	Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California	Woodward-Clyde Consultants
FR-02283	1991		California State University, Fresno

Location information

County: Fresno
USGS quad(s): Clovis
Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
251 North DeWitt	Clovis	491-030-19	93612

PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	10/21/2016	User	
Last modified:	3/17/2023	jdavid5	
IC actions:	*Date*	*User*	*Action taken*
	6/13/2022	kprince4	Added Note
	10/21/2016	User	resource entered: cls
	10/21/2016	User	resource mapped: cls
	3/15/2023	kprince4	PDF Rescanned
	3/17/2023	jdavid5	PDF Verified

Record status: Database Complete

Resource Detail: P-10-006879

SSJVIC Record Search 23-282

Identifying information

Primary No.: P-10-006879
Trinomial:
Name: Yard Office
Other IDs:

Type	*Name*
Resource Name	Yard Office

Cross-refs:

Attributes

Resource type: Building
Age: Historic
Information base: Survey
Attribute codes: HP06 (1-3 story commercial building)
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

According to aerials, address no longer exists and the building is likely destroyed.

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
3/10/1991	E.K. Smith, A.A. Austin	CSU Fresno	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
FR-02234	1992	Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California	Woodward-Clyde Consultants
FR-02283	1991		California State University, Fresno

Location information

County: Fresno
USGS quad(s): Clovis
Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
290 N. DeWitt	Clovis	491-030-29	93612

PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	10/21/2016	User	
Last modified:	3/17/2023	jdavid5	
IC actions:	*Date*	*User*	*Action taken*
	6/13/2022	kprince4	Addded Note
	10/21/2016	User	resource entered: cls
	10/21/2016	User	resource mapped: cls
	3/15/2023	kprince4	PDF Rescanned
	3/17/2023	jdavid5	PDF Verified

Record status: Database Complete

Resource Detail: P-10-006880

SSJVIC Record Search 23-282

Identifying information

Primary No.: P-10-006880
Trinomial:
Name: Shelton Residence
Other IDs:

Type	*Name*
Resource Name	Shelton Residence

Cross-refs:

Attributes

Resource type: Building
Age: Historic
Information base: Survey
Attribute codes: HP02 (Single family property)
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

According to aerials, address no longer exists and the building is likely destroyed.

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
3/16/1991	E.K. Smith, A.A. Austin	CSU Fresno	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
FR-02234	1992	Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California	Woodward-Clyde Consultants
FR-02283	1991		California State University, Fresno

Location information

County: Fresno
USGS quad(s): Clovis
Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
255 DeWitt	Clovis	491-030-19	93612

PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	10/21/2016	User	
Last modified:	3/17/2023	jdavid5	
IC actions:	*Date*	*User*	*Action taken*
	6/13/2022	kprince4	Added Note
	10/21/2016	User	resource entered: cls
	10/21/2016	User	resource mapped: cls
	3/15/2023	kprince4	PDF Rescanned
	3/17/2023	jdavid5	PDF Verified

Record status: Database Complete

Resource Detail: P-10-006881

SSJVIC Record Search 23-282

Identifying information

Primary No.: P-10-006881
Trinomial:
Name: The Leonard Isaac and Oyier Residence
Other IDs:

Type	*Name*
Resource Name	The Leonard Isaac and Oyier Residence

Cross-refs:

Attributes

Resource type: Building
Age: Historic
Information base: Survey
Attribute codes: HP02 (Single family property)
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

Based on aerials, Building is likely to have been destroyed.

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
3/7/1991	E.K. Smith, A.A. Austin	CSU Fresno	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
FR-02234	1992	Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California	Woodward-Clyde Consultants
FR-02283	1991		California State University, Fresno

Location information

County: Fresno
USGS quad(s): Clovis
Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
285 North DeWitt	Clovis	491-030-20	93612

PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	10/21/2016	User	
Last modified:	3/17/2023	jdavid5	
IC actions:	*Date*	*User*	*Action taken*
	6/13/2022	kprince4	Added Note
	10/21/2016	User	resource entered: cls
	10/21/2016	User	resource mapped: cls
	3/15/2023	kprince4	PDF Rescanned
	3/17/2023	jdavid5	PDF Verified

Record status: Database Complete

Resource Detail: P-10-006882

SSJVIC Record Search 23-282

Identifying information

Primary No.: P-10-006882
Trinomial:
Name: Morrison Residence
Other IDs:

Type	*Name*
Resource Name	Morrison Residence

Cross-refs:

Attributes

Resource type: Building
Age: Historic
Information base: Survey
Attribute codes: HP02 (Single family property)
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

According to aerials, address no longer exists and the building is likely destroyed.

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
3/16/1991	E.K. Smith, A.A. Austin	CSU Fresno	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
FR-02234	1992	Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California	Woodward-Clyde Consultants
FR-02283	1991		California State University, Fresno

Location information

County: Fresno
USGS quad(s): Clovis
Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
355 North DeWitt	Clovis	491-030-15	93612

PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	10/21/2016	User	
Last modified:	3/17/2023	jdavid5	
IC actions:	*Date*	*User*	*Action taken*
	6/13/2022	kprince4	Added Note
	10/21/2016	User	resource entered: cls
	10/21/2016	User	resource mapped: cls
	3/15/2023	kprince4	PDF Rescanned
	3/17/2023	jdavid5	PDF Verified

Record status: Database Complete

Resource Detail: P-10-006883

SSJVIC Record Search 23-282

Identifying information

Primary No.: P-10-006883
Trinomial:
Name: Clovis Hi-Tech Automotive
Other IDs:

Type	*Name*
Resource Name	Clovis Hi-Tech Automotive

Cross-refs:

Attributes

Resource type: Building
Age: Historic
Information base: Survey
Attribute codes: HP06 (1-3 story commercial building)
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

Based on aerials, Building is likely to have been destroyed.

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
10/29/1990	E.K. Smith, A.A. Austin	CSU Fresno	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
FR-02234	1992	Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California	Woodward-Clyde Consultants
FR-02283	1991		California State University, Fresno

Location information

County: Fresno
USGS quad(s): Clovis
Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
491 E. Herndon	Clovis	304-180-20	93612

PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	10/21/2016	User	
Last modified:	3/17/2023	jdavid5	
IC actions:	*Date*	*User*	*Action taken*
	6/13/2022	kprince4	Added Note
	10/21/2016	User	resource entered: cls
	10/21/2016	User	resource mapped: cls
	3/15/2023	kprince4	PDF Rescanned
	3/17/2023	jdavid5	PDF Verified

Record status: Database Complete

Resource Detail: P-10-006884

SSJVIC Record Search 23-282

Identifying information

Primary No.: P-10-006884
Trinomial:
Name: Jimbo's Bar, All Around Better Transmissions
Other IDs:

Type	*Name*
Resource Name	Jimbo's Bar, All Around Better Transmissions

Cross-refs:

Attributes

Resource type: Building
Age: Historic
Information base: Survey
Attribute codes: HP06 (1-3 story commercial building)
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
12/16/1990	E.K. Smith, A.A. Austin	CSU Fresno	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
FR-02234	1992	Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California	Woodward-Clyde Consultants
FR-02283	1991		California State University, Fresno

Location information

County: Fresno
USGS quad(s): Clovis
Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
451 E. Herndon	Clovis	304-180-20	93612

PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	10/21/2016	User	
Last modified:	3/17/2023	jdavid5	
IC actions:	*Date*	*User*	*Action taken*
	10/21/2016	User	resource entered: cls
	10/21/2016	User	resource mapped: cls
	3/15/2023	kprince4	PDF Rescanned
	3/17/2023	jdavid5	PDF Verified

Record status: Database Complete

Resource Detail: P-10-006885

SSJVIC Record Search 23-282

Identifying information

Primary No.: P-10-006885
Trinomial:
Name: Bill Crowell Dairy
Other IDs:

Type	*Name*
Resource Name	Bill Crowell Dairy

Cross-refs:

Attributes

Resource type: Building
Age: Historic
Information base: Survey
Attribute codes: HP04 (Ancillary building)
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

According to aerials, address no longer exists and the building is likely destroyed.

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
12/16/1990	E.K. Smith, A.A. Austin	CSU Fresno	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
FR-02234	1992	Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California	Woodward-Clyde Consultants
FR-02283	1991		California State University, Fresno

Location information

County: Fresno
USGS quad(s): Clovis
Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
521 Herndon	Fresno	304-180-03	93612

PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	10/21/2016	User	
Last modified:	3/17/2023	jdavid5	
IC actions:	*Date*	*User*	*Action taken*
	6/13/2022	kprince4	Added Note
	10/21/2016	User	resource entered: cls
	10/21/2016	User	resource mapped: cls
	3/15/2023	kprince4	PDF Rescanned
	3/17/2023	jdavid5	PDF Verified

Record status: Database Complete

Resource Detail: P-10-006886

SSJVIC Record Search 23-282

Identifying information

Primary No.: P-10-006886
Trinomial:
Name: Crowell Barn-Residence
Other IDs:

Type	*Name*
Resource Name	Crowell Barn-Residence

Cross-refs:

Attributes

Resource type: Building
Age: Historic
Information base: Survey
Attribute codes: HP06 (1-3 story commercial building)
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

According to aerials, address no longer exists and the building is likely destroyed.

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
12/16/1990	E.K. Smith, A.A. Austin	CSU Fresno	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
FR-02234	1992	Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California	Woodward-Clyde Consultants
FR-02283	1991		California State University, Fresno

Location information

County: Fresno
USGS quad(s): Clovis
Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
577 E. Herndon	Clovis	304-180-04	93612

PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	10/21/2016	User	
Last modified:	3/17/2023	jdavid5	
IC actions:	*Date*	*User*	*Action taken*
	6/13/2022	kprince4	Added Note
	10/21/2016	User	resource entered: cls
	10/21/2016	User	resource mapped: cls
	3/15/2023	kprince4	PDF Rescanned
	3/17/2023	jdavid5	PDF Verified

Record status: Database Complete

Resource Detail: P-10-006887

SSJVIC Record Search 23-282

Identifying information

Primary No.: P-10-006887
Trinomial:
Name: Elva Barrett Residence
Other IDs:

Type	*Name*
Resource Name	Elva Barrett Residence

Cross-refs:

Attributes

Resource type: Building
Age: Historic
Information base: Survey
Attribute codes: HP02 (Single family property)
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

According to aerials, address no longer exists and the building is likely destroyed.

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
2/18/1991	E.K. Smith, A.A. Austin	CSU Fresno	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
FR-02234	1992	Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California	Woodward-Clyde Consultants
FR-02283	1991		California State University, Fresno

Location information

County: Fresno
USGS quad(s): Clovis
Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
715 E. Herndon	Clovis	304-180-12	93612

PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	10/21/2016	User	
Last modified:	3/17/2023	jdavid5	
IC actions:	*Date*	*User*	*Action taken*
	6/13/2022	kprince4	Added Note
	10/21/2016	User	resource entered: cls
	10/21/2016	User	resource mapped: cls
	3/15/2023	kprince4	PDF Rescanned
	3/17/2023	jdavid5	PDF Verified

Record status: Database Complete

Resource Detail: P-10-006888

SSJVIC Record Search 23-282

Identifying information

Primary No.: P-10-006888
Trinomial:
Name: The Louis Gibson Residence
Other IDs:

Type	*Name*
Resource Name	The Louis Gibson Residence

Cross-refs:

Attributes

Resource type: Building
Age: Historic
Information base: Survey
Attribute codes: HP02 (Single family property)
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

According to aerials, address no longer exists and the building is likely destroyed.

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
10/30/1990	E.K. Smith, A.A. Austin	CSU Fresno	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
FR-02234	1992	Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California	Woodward-Clyde Consultants
FR-02283	1991		California State University, Fresno

Location information

County: Fresno
USGS quad(s): Clovis
Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
424 North Clovis	Clovis	304-180-13	93612

PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	10/21/2016	User	
Last modified:	3/17/2023	jdavid5	
IC actions:	*Date*	*User*	*Action taken*
	6/13/2022	kprince4	Added Note
	10/21/2016	User	resource entered: cls
	10/21/2016	User	resource mapped: cls
	3/15/2023	kprince4	PDF Rescanned
	3/17/2023	jdavid5	PDF Verified

Record status: Database Complete

Resource Detail: P-10-006889

SSJVIC Record Search 23-282

Identifying information

Primary No.: P-10-006889
Trinomial:
Name: The Flloyd C. Bishop Home
Other IDs:

Type	*Name*
Resource Name	The Flloyd C. Bishop Home

Cross-refs:

Attributes

Resource type: Building
Age: Historic
Information base: Survey
Attribute codes: HP02 (Single family property)
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

According to aerials, address no longer exists and the building is likely destroyed.

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
2/17/1991	E.K. Smith, A.A. Austin	CSU Fresno	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
FR-02234	1992	Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California	Woodward-Clyde Consultants
FR-02283	1991		California State University, Fresno

Location information

County: Fresno
USGS quad(s): Clovis
Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
436 North Clovis	Clovis	304-180-13	93612

PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	10/21/2016	User	
Last modified:	3/17/2023	jdavid5	
IC actions:	*Date*	*User*	*Action taken*
	6/13/2022	kprince4	Added Note
	10/21/2016	User	resource entered: cls
	10/21/2016	User	resource mapped: cls
	3/15/2023	kprince4	PDF Rescanned
	3/17/2023	jdavid5	PDF Verified

Record status: Database Complete

Resource Detail: P-10-006890

SSJVIC Record Search 23-282

Identifying information

Primary No.: P-10-006890
Trinomial:
Name: Sean King Residence
Other IDs:

Type	*Name*
Resource Name	Sean King Residence

Cross-refs:

Attributes

Resource type: Building
Age: Historic
Information base: Survey
Attribute codes: HP02 (Single family property)
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

According to aerials, address no longer exists and the building is likely destroyed.

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
2/17/1991	E.K. Smith, A.A. Austin	CSU Fresno	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
FR-02234	1992	Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California	Woodward-Clyde Consultants
FR-02283	1991		California State University, Fresno

Location information

County: Fresno
USGS quad(s): Clovis
Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
436 North Clovis	Clovis	304-180-13	93612

PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	10/21/2016	User	
Last modified:	3/17/2023	jdavid5	
IC actions:	*Date*	*User*	*Action taken*
	6/13/2022	kprince4	Added Note
	10/21/2016	User	resource entered: cls
	10/21/2016	User	resource mapped: cls
	3/15/2023	kprince4	PDF Rescanned
	3/17/2023	jdavid5	PDF Verified

Record status: Database Complete

Resource Detail: P-10-006891

SSJVIC Record Search 23-282

Identifying information

Primary No.: P-10-006891
Trinomial:
Name: Bart and Rebecca King Residence
Other IDs:

Type	*Name*
Resource Name	Bart and Rebecca King Residence

Cross-refs:

Attributes

Resource type: Building
Age: Historic
Information base: Survey
Attribute codes: HP02 (Single family property)
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

According to aerials, address no longer exists and the building is likely destroyed.

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
10/30/1990	E.K. Smith, A.A. Austin	CSU Fresno	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
FR-02234	1992	Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California	Woodward-Clyde Consultants
FR-02283	1991		California State University, Fresno

Location information

County: Fresno
USGS quad(s): Clovis
Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
436 North Clovis	Clovis	304-180-11	93612

PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	10/21/2016	User	
Last modified:	3/17/2023	jdavid5	
IC actions:	*Date*	*User*	*Action taken*
	6/13/2022	kprince4	Added Note
	10/21/2016	User	resource entered: cls
	10/21/2016	User	resource mapped: cls
	3/15/2023	kprince4	PDF Rescanned
	3/17/2023	jdavid5	PDF Verified

Record status: Database Complete

Resource Detail: P-10-006892

SSJVIC Record Search 23-282

Identifying information

Primary No.: P-10-006892
Trinomial:
Name: The Bart King Rental Residence
Other IDs:

Type	*Name*
Resource Name	The Bart King Rental Residence

Cross-refs:

Attributes

Resource type: Building
Age: Historic
Information base: Survey
Attribute codes: HP02 (Single family property)
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

According to aerials, address no longer exists and the building is likely destroyed.

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
10/29/1990	E.K. Smith, A.A. Austin	CSU Fresno	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
FR-02234	1992	Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California	Woodward-Clyde Consultants
FR-02283	1991		California State University, Fresno

Location information

County: Fresno
USGS quad(s): Clovis
Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
436 North Clovis	Fresno	304-180-11	93612

PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	10/21/2016	User	
Last modified:	3/17/2023	jdavid5	
IC actions:	*Date*	*User*	*Action taken*
	6/13/2022	kprince4	Added Note
	10/21/2016	User	resource entered: cls
	10/21/2016	User	resource mapped: cls
	3/15/2023	kprince4	PDF Rescanned
	3/17/2023	jdavid5	PDF Verified

Record status: Database Complete

Resource Detail: P-10-006893

SSJVIC Record Search 23-282

Identifying information

Primary No.: P-10-006893
Trinomial:
Name: The Clovis First Baptist Parsonage
Other IDs:

Type	*Name*
Resource Name	The Clovis First Baptist Parsonage

Cross-refs:

Attributes

Resource type: Building
Age: Historic
Information base: Survey
Attribute codes: HP02 (Single family property)
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

According to aerials, address no longer exists and the building is likely destroyed.

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
4/8/1991	E.K. Smith, A.A. Austin	CSU Fresno	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
FR-02234	1992	Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California	Woodward-Clyde Consultants
FR-02283	1991		California State University, Fresno

Location information

County: Fresno
USGS quad(s): Clovis
Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
535 North Marion	Clovis	304-200-12	93612

PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	10/21/2016	User	
Last modified:	3/17/2023	jdavid5	
IC actions:	*Date*	*User*	*Action taken*
	6/13/2022	kprince4	Added Note
	10/21/2016	User	resource entered: cls
	10/21/2016	User	resource mapped: cls
	3/15/2023	kprince4	PDF Rescanned
	3/17/2023	jdavid5	PDF Verified

Record status: Database Complete

Resource Detail: P-10-007242

SSJVIC Record Search 23-282

Identifying information

Primary No.: P-10-007242
Trinomial:
Name: Clovis Foursquare Church; 135 Osmun Avenue, 147 Osmun Avenue
Other IDs:

Type	*Name*
Resource Name	Clovis Foursquare Church
Resource Name	135 Osmun Avenue, 147 Osmun Avenue

Cross-refs:

Attributes

Resource type: Building
Age: Historic
Information base: Survey
Attribute codes: HP02 (Single family property); HP16 (Religious building)
Disclosure: Not for publication
Collections: No
Accession no(s):
Facility:

General notes

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
10/2/2018		TGP Investments, LLC, and Flyline Investments, LLC	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
FR-03046	2018	Cultural Resources Study for the Proposed Residential Projet at Osmun Avenue and Second Street	LSA Associates Inc.

Location information

County: Fresno
USGS quad(s): Clovis
Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
135 Osmun Avenue	Clovis		93612
147 Osmun Avenue	Clovis		93612

PLSS: T13S R21E NW¼ of SW¼ of Sec. 4 MDBM
UTMs: Zone 11 259460mE 4079259mN NAD83 (From GIS 10/02/2018)

Management status

Database record metadata

	Date	*User*	
Entered:	11/23/2021	kprince4	
Last modified:	3/22/2023	kprince4	
IC actions:	*Date*	*User*	*Action taken*
	11/23/2021	kprince4	Entered
	3/22/2023	kprince4	PDF Verified

Record status: Verified

Appendix C

DPR 523 Site Records for New Resources

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #_____
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code _____ Reviewer _____ Date _____

Page 1 **of** 7 ***Resource Name or #:** (Assigned by recorder) West Branch Clovis Ditch
P1. Other Identifier: _____

***P2. Location:** ☐ **Not for Publication** ■ **Unrestricted**

***a. County** Fresno **and**

***b. USGS 7.5' Quad** *Clovis, CA* **Date** 1981 T 13S ; R 21E ; Sec multiple ; Mt. Diablo B.M.

c. UTM: Zone 11 , intake 36.83826 mE/ -119.65555 **mN;** center of earthen segment 36.83388 **mE/** -119.701758 **mN;** terminus 36.82318 **mE/** -119.71447 **mN.**

e. Other Locational Data: The ditch begins at an intake on the Enterprise Canal, just north of the intersection of Herndon Avenue and N. Locan Avenue, Clovis. The remaining open ditch segment is located immediately west of the intersection of N. Clovis Avenue and Palo Alto Avenue.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The West Branch Clovis Ditch is a 4.5 mile water conveyance that begins at a gate on the Enterprise Canal. It runs to the west for most of its length, before turning south and terminating near a channelized section of Big Dry Creek in Clovis. The original open cut ditch was constructed circa 1903 by the Clovis Ditch Company and spanned 2.6 miles to a point immediately east of N. Clovis Avenue. The ditch was extended west and south between 1937 and 1946, then progressively piped underground in response to urban development. The conveyance is now underground for more than 95% of its length, with a single segment of ditch spanning approximately 1,130 feet before reentering a subsurface pipe. The West Branch Clovis Ditch appears ineligible for listing in the California Register of Historical Resources and National Register.

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

***P3b. Resource Attributes:** (List attributes and codes) HP20. Canal/Aqueduct

***P4. Resources Present:** ☐ Building ■ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5b. Description of Photo: Overview of earthen ditch segment looking west (7.16.23).

***P6. Date Constructed/Age and Source:** ■ Historic ☐ Prehistoric ☐ Both

***P7. Owner and Address:**
Fresno Irrigation District
907 S Maple Ave
Fresno, CA 93725

***P8. Recorded by:**
Mike Taggart, RPA;
Taggart & Associates
Sacramento, California

***P9. Date Recorded:**
July 16, 2023

***P10. Survey Type:** (Describe)
Pedestrian survey

***P11. Report Citation**: (Cite survey report and other sources, or enter "none.")
Taggart, Mike (2023) *Cultural Resources Inventory & Evaluation Golden Triangle Planned Commercial Center City of Clovis, Fresno.* Prepared for Acorn Environmental by Taggart & Associates, Sacramento.

***Attachments:** ☐NONE ■Location Map ■Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) West Branch Clovis Ditch *NRHP Status Code 6Z

B1. Historic Name: Clovis Ditch or West Branch Clovis Ditch
B2. Common Name: Clovis Ditch
B3. Original Use: Water conveyance B4. Present Use: Water Conveyance
*B5. Architectural Style: Utilitarian
*B6. Construction History: (Construction date, alterations, and date of alterations)

The original open cut Clovis Ditch was constructed circa 1903 by the Clovis Ditch Company and spanned 2.6 miles to a point immediately east of N. Clovis Avenue. The Clovis Ditch Company was short lived, while the ditch itself persisted. By the end of 1905 the company had forfeited its right to operate in California (Secretary of State 1905). The ditch very likely came under the control of the Fresno Canal and Irrigation Company until the formation of the Fresno Irrigation District in 1920. Sometime between the 1937 – 1946 the ditch was extended west of North Clovis Avenue, this new segment named the West Branch Clovis Ditch.

*B7. Moved? ■No ☐Yes ☐Unknown Date: Original Location:
*B8. Related Features:

The conveyance begins at a gate and subsurface pipe on the Enterprise Canal. There are no visible above-ground features with the exception of a 1,130 foot ditch segment. The conveyance daylights at a concrete apron into the lone remaining ditch segment west of N. Clovis Avenue. A valve is present on the north side of the ditch, 75 feet east of the western end of the open ditch segment. The ditch re-enters a subsurface pipe through another concrete apron fitted with a debris grate just east of the former Southern Pacific Railroad alignment.

B9a. Architect: Unknown b. Builder: Clovis Ditch Company
*B10. Significance: Theme Water Development and Irrigation in Fresno County
Area Fresno County
Period of Significance 1870 - 1954 Property Type Water Conveyance
Applicable Criteria 1 & 3 per CRHR (A & C per NRHP) (Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The West Branch Clovis Ditch appears ineligible for listing in the California Register of Historical Resources (CRHR) and National Register of Historic Places (NRHP). It is not associated with events or persons that are important in local or regional history. The design and construction of the ditch are unremarkable. Moreover the ditch lacks integrity of design, materials, and setting (see Continuation Sheet).

B11. Additional Resource Attributes: (List attributes and codes) N/A
*B12. References: See Continuation Sheet (page 4 of 7)
B13. Remarks: N/A

*B14. Evaluator: Mike Taggart, Taggart & Assoc.
*Date of Evaluation: August 2023

(This space reserved for official comments.)

(Sketch Map with north arrow required.)

The original open cut ditch was constructed circa 1903 by the Clovis Ditch Company and ran approximately 2.6 miles to a point immediately east of N. Clovis Avenue. The ditch was extended west and south 1937 – 1946, then progressively piped underground in response to urban development (Taggart 2023).

The ditch is largely absent from the archival record, as a ubiquitous irrigation feature in the region. In contrast, conveyances such as the Enterprise, Gould, Fresno, and Friant – Kern canals all played a significant role in the development of irrigated agriculture in the region and supported the subsequent growth of local communities. These substantial engineering features all made contributions to the patterns of both San Joaquin Valley and California history (McFarland 2020). The first three canals exemplify the early years of water development in Fresno County (1870 – 1919), which were built with private capital and closely tied to land speculation. The early canals also played pivotal roles in the water wars of the late 19th and early 20th centuries, each swept up in consequential litigation that would shape case law around water rights for generations. Likewise, the Friant - Kern Canal represents the last major phase of water development (1937 - 1954) in the region that was publicly funded and tied to a broader system of enormous proportions in the post-war era. Viewed in relation to key regional water infrastructure, the diminutive importance of the West Branch Clovis Ditch is clear.

News about the ditch is scant in local papers beyond announcements for stockholder meetings in Clovis and brief descriptions of active litigation. The Clovis Ditch Company was short lived, while the ditch itself persisted. By the end of 1905 the company had forfeited its right to operate in California. The ditch very likely came under the control of the FCIC until the formation of the Fresno Irrigation District (FID) in 1920 (Taggart 2023).

At the time of FID formation in 1920 an acquisition of the region's water infrastructure, the Clovis Ditch represented roughly 0.3% of the total length of District’s conveyance facilities at just 2.6 miles in an area of marginal agricultural significance. After the ditch’s extension to the current 4.5 miles, it would come to account for approximately 0.5% of FID’s conveyance infrastructure. Thus, the Clovis Ditch (later dubbed West Branch) has never accounted for a significant share of the FID’s conveyance infrastructure, let alone that of the County more broadly. Likewise, this diminutive ditch did not play a role in the development of Clovis, which owes its early existence to the flume, mill, and San Joaquin Valley Railroad. The Clovis ditch skirted the town site on the north and watered the sparsely populated lands beyond the town center.

The design and construction of the ditch are completely unremarkable and urban development has drastically altered the setting from agricultural to residential and commercial. With the exception of the Enterprise Canal, the ditch lacks related sites, associated resources, or aspects of the surrounding setting

that could contribute to its significance. “Associated resources may include agricultural fields, mines, hydroelectric power plants, caretakers’ or construction crews’ housing, and perhaps even entire communities. A system’s setting may also contribute to its significance (JRP and Caltrans 2011:85).”

In summary, the West Branch Clovis Ditch is not directly associated with any events that have made a significant contribution to the broad patterns of California’s history and cultural heritage, nor is it associated with the lives of persons important in history. The simple conveyance does not embody distinctive characteristics a type, period, region, or method of construction, nor does it represent the work of an important creative individual, or possess high artistic values. The West Branch Clovis Ditch has not yielded, nor is it likely to yield, information important in prehistory or history. Even if the ditch was found to meet the significance thresholds cited above, its integrity has been severely compromised by removing 95% of the open cut earthen canal features. With these considerations in mind, the West Branch Clovis Ditch appears ineligible for listing in the CRHR and NRHP.

References:

JRP Historical Consulting Services (JRP) and Caltrans (2000) *Water Conveyance Systems in California: Historic Context Development and Evaluation Procedures*. Sacramento, CA.

McFarland, J.R. (2020) *A Century of Excellence: Fresno Irrigation Distric*t. A publication of the Fresno Irrigation District, Fresno.

Taggart, Mike (2023) *Cultural Resources Inventory & Evaluation Golden Triangle Planned Commercial Center City of Clovis, Fresno.* Prepared for Acorn Environmental by Taggart & Associates, Sacramento.

Photograph 1: Eastern end of ditch and concrete apron where the conveyance daylights. View east with N. Clovis Avenue (mid-ground) and Palo Alto Avenue (background) visible.

Photograph 2: Central segment of the ditch looking west.

Photograph 3: Western segment of the ditch with valve on right, looking west.

Photograph 4: Western end of ditch with concrete apron where water re-enters the subsurface pipe, looking southwest.

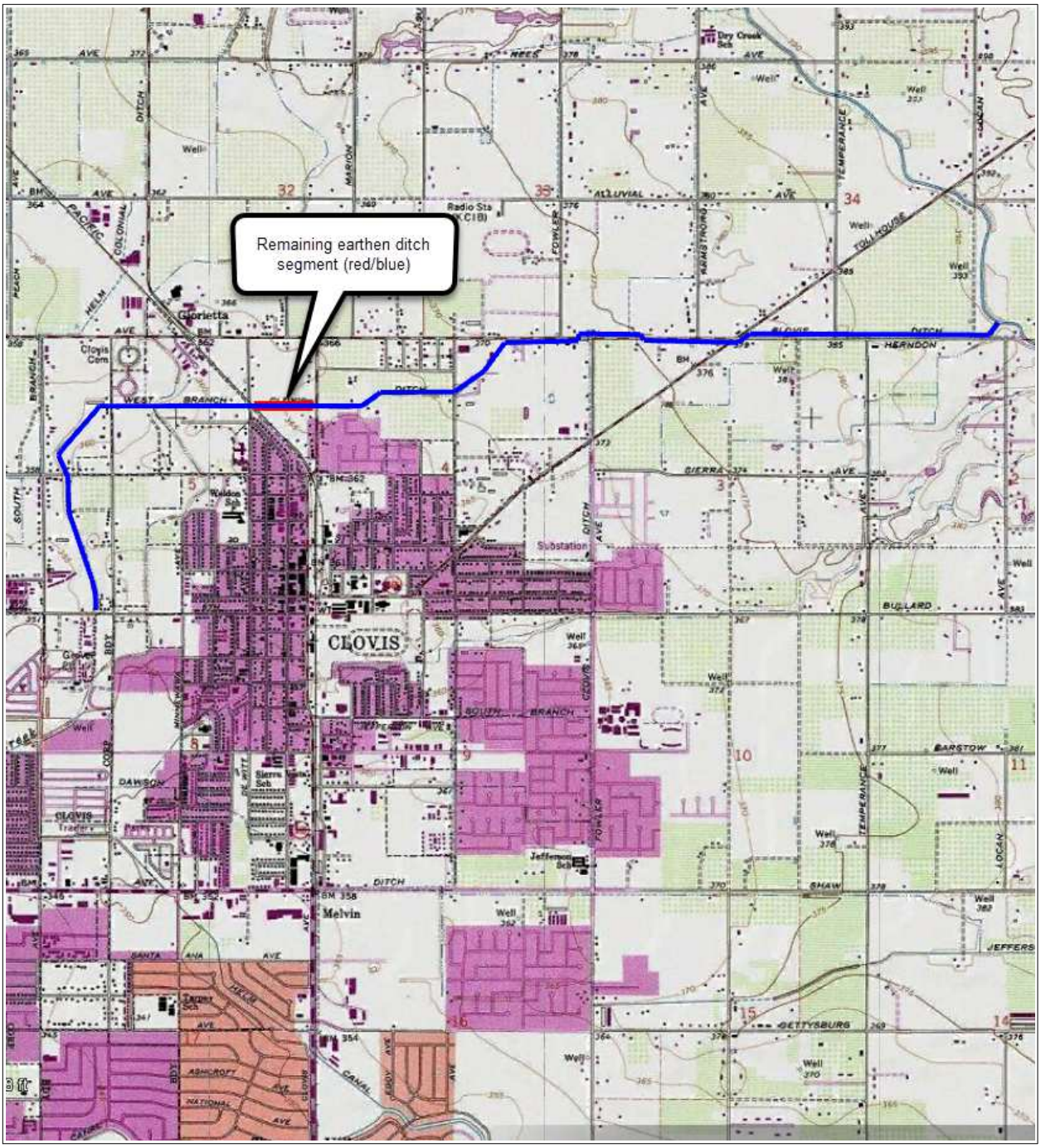
State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI# _
Trinomial

Page 7 **of** 7 ***Resource Name or #** (Assigned by recorder) West Branch Clovis Ditch

***Map Name:** *Clovis, CA* ***Scale:** 1:24,000 ***Date of map:** 1981



* Required information

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #_____
HRI #
Trinomial
NRHP Status Code
Other Listings
Review Code _____ Reviewer _____ Date _____

Page 1 **of** 5 ***Resource Name or #:** (Assigned by recorder) 270 N. Clovis Avenue
P1. Other Identifier: _____

***P2. Location:** ☐ **Not for Publication** ■ **Unrestricted**

***a. County** Fresno **and**

***b. USGS 7.5' Quad** *Clovis, CA* **Date** 1981 T 13S ; R 21E ; Sec 5 ; Mt. Diablo B.M.

c. Address 270 N. Clovis Avenue City Clovis Zip 93612

d. UTM: Zone 11 , 36.835175 mE/ -119.700442 **mN**

e. Other Locational Data: The residence is accesed via a horseshoe driveway that intersects the south-bound lanes of N. Clovis Avenue, just south of Magill Avenue.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The property at 270 N. Clovis Avenue includes a primary residence with landscaping, a manufactured home, a detached garage, and a large open air vehicle port covering approximately 1.2 acres. The ranch-style home with aspects of both a Spanish and Prairie sub variants was built in 1951. The reported conditioned space is 1,945 square feet with a one-car attached garage. The building has been expanded over the years, including an addition next to the garage on the north side of the original building, as well as a rectangular addition on the rear northwest corner covering approximately 1,600 additional square feet. The home's original rambling layout has been expanded over time using different materials and incongruous roof lines. The property appears ineligible for listing in the California Register of Historical Resources and National Register.

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

***P3b. Resource Attributes:** (List attributes and codes) HP2. Single Family Property

***P4. Resources Present:**
■ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5b. Description of Photo: Front (eastern) facade of 270 N. Clovis Ave.

***P6. Date Constructed/Age and Source:** ■ Historic ☐ Prehistoric ☐ Both

***P7. Owner and Address:**
Paul T. Moore
270 N. Clovis Avenue
Clovis, CA 93612

***P8. Recorded by:**
Mike Taggart, RPA;
Taggart & Associates
Sacramento, California

***P9. Date Recorded:**
July 16, 2023

***P10. Survey Type:** (Describe)
Pedestrian survey

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.")
Taggart, Mike (2023) *Cultural Resources Inventory & Evaluation Golden Triangle Planned Commercial Center City of Clovis, Fresno.* Prepared for Acorn Environmental by Taggart & Associates, Sacramento.

***Attachments:** ☐NONE ■Location Map ■Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
Primary # _____
HRI# _____

BUILDING, STRUCTURE, AND OBJECT RECORD

***Resource Name or #** (Assigned by recorder) 270 N. Clovis Avenue ***NRHP Status Code** 6Z

B1. Historic Name: 270 N. Clovis Avenue
B2. Common Name: 270 N. Clovis Avenue
B3. Original Use: Residential B4. Present Use: Residential
***B5. Architectural Style:** Ranch
***B6. Construction History:** (Construction date, alterations, and date of alterations)
The title history for 270 N. Clovis Avenue lists a construction date of 1951, which is corroborated by a 1957 aerial photo that depicts the home and landscaping.

***B7. Moved?** ■No ☐Yes ☐Unknown **Date:** _____ **Original Location:**
***B8. Related Features:**
The southern half of the property currently serves as a boat and RV storage area that is fenced and graveled. The primary house was originally surrounded by agricultural uses until the mid-1970s or early 1980s. Sometime after 1984 the property was used for storage of what appear to be tractor trailers, boats, and RVs based on historic aerial photographs. Structure additions during the 1990s include a manufactured home placed behind the main residence and a large metal building also erected behind the house. The 1998 aerial photo shows a dramatic expansion of the apparent storage, stretching from the north bank of the ditch north to Magill Ave.

B9a. Architect: Unknown b. Builder: Unknown
***B10. Significance: Theme** Post-WWII Development and Fresno County Residential Development
Area Fresno County
Period of Significance 1946 - 1973 **Property Type** Residential
Applicable Criteria 1, 2 and 3 of CRHR (A, B, and C of NRHP) (Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The residential property at 270 N. Clovis Avenue appears ineligible for listing in the California Register of Historical Resources (CRHR) and National Register of Historic Places (NRHP). It is not associated with events or persons that are important in local or regional history. The design and construction of the house and outbuildings are unremarkable. Moreover the house lacks integrity of design, materials, and setting (see Continuation Sheet).

B11. Additional Resource Attributes: (List attributes and codes) N/A
***B12. References:** See Continuation Sheet (page 4 of 5)
B13. Remarks: N/A

***B14. Evaluator:** Mike Taggart, Taggart & Assoc.
***Date of Evaluation:** August 2023

(Sketch Map with north arrow required.)

(This space reserved for official comments.)

This ranch-style house with Prairie sub-variant has a hip and valley tile roof that is low-slung with moderately deep eaves (McAlester and McAlester 2002). The front facade is clad in tan bricks laid in a running half pattern. The front exterior walls include picture windows are made up of a grouping of tall rectangular shapes, with some that open for ventilation. The windows are white, double-pane vinyl that are not original.

Consistent with ranch architecture the building exhibits natural colors in materials in a warm palette, and uses repeating square and rectangle shapes. A brick walkway leads to a covered brick porch oriented perpendicular to the street, which is bound by a simple wrought iron railing.

The house features decorative red brick planters in the front and low-slung brick wall at the northern driveway entrance and along the dirt sidewalk. The tidy, well manicured landscaping includes grass and well-pruned shrubs in the front yard. Two large Mexican palms are present on the southern margin of the front yard, separating the residential space from the adjoining commercial outside storage space.

The rear of the house features a lawn and concrete patio, with a line of trees providing vegetated screen. Beyond the screen lies a large metal vehicle port, a detached garage, and a manufactured home. A chain link fence with privacy slats surrounds the 270 North Clovis Avenue property and separates it from the adjacent house to the north, 290 North Clovis Avenue.

The southern half of the property currently serves as a boat and RV storage area that is fenced and graveled. The primary house was originally surrounded by agricultural uses until the mid-1970s or early 1980s. Sometime after 1984 the property was used for storage of what look to be tractor trailers, boats, and RVs. Structure additions during the 1990s include a manufactured home placed behind the main residence and a large metal building also erected behind the house. The 1998 aerial photo shows a dramatic expansion of the apparent storage, stretching from the north bank of the ditch north to Magill Ave.

As described in the historic context, postwar houses in California often lack distinction as mass produced products with minor embellishments, and 270 North Clovis Avenue is no exception. Ranch style homes that are significant are typically well preserved examples of a quintessential type, associated with an influential architect or builder such as William Wurster or Cliff May.

Local historic inventories were examined to identify significant built environment resources for comparison to the property evaluated here. These include the Fresno County Historical Landmarks & Records Advisory Commission's Inventory of Historic Sites in Fresno County (FCHLRC 2022) and the Index of Historical Sites in Fresno County maintained by the Fresno County Public Library (FCPL 2022). Historically significant homes around Clovis range from a simple board and batten house of a Clovis pioneer (e.g., Reyburn Home, 1881), to large opulent homes built by successful men (e.g., L.W. Gibson House, 1912). In contrast, the Larson residence and Cobb Fig Compound is significant locally as an

APPENDIX D

Noise Memorandum

May 15, 2024

Mr. Jeff Milgrom, Senior Development Manager
Legacy Realty & Development
5390 E. Pine Avenue
Fresno, CA 93727

RE: Clovis Golden Triangle Noise Memorandum

Dear Mr. Jeff Milgrom:

JK Consulting Group prepared the following Noise memorandum for the proposed update to the Development Plan and Master Site Plan for the Golden Triangle Planned Commercial Center (PCC). This will allow for the development of three luxury car dealerships, a brewery/restaurant, and future commercial uses consistent with the proposed zoning for the property. The Golden Triangle Planned PCC (Project) is located on approximately 13.64 acres of land, southwest of the Clovis Avenue and Magill Avenue intersection. The Project is bounded by Magill Avenue-State Route (SR) 168 to the north, the Clovis Old Town Trail to the south, and Clovis Avenue to the east. The Project location and site plan are depicted in Figures 1 and 2.

EXISTING CONDITIONS

The existing noise environment is characterized by ambient noise levels in the Project area. Table 1 summarizes ambient noise levels in the Project area considering existing noise level measurements. Short-term monitoring was conducted at two (2) locations on Wednesday, January 17th, using a Reed Instruments Model R8080 Type 2 sound level meter. The calibration of the meter was checked before and after the measurements using a Reed Instruments Model R8090 sound level calibrator. The determination of noise impacts associated with Project is based upon ambient (baseline) noise levels in the study area and City of Clovis noise standards. Traffic noise from vehicles along Clovis Avenue, Herndon Avenue, and SR 168 are the major noise sources in the Project area. Other sources of noise include stationary sources from various land uses (i.e., commercial, residential, and industrial).

A field investigation was conducted to identify land uses that could be subject to operational and construction noise impacts from the proposed Project. The Project site is located to the east of Clovis Avenue between Magill Avenue-SR 168 and the Clovis Old Town Trail. There are single-family and multi-family residences southwest of the Project, adjacent to the Clovis Old Town Trail. In addition, there is a hotel (Fairfield Inn & Suites), California Health Sciences University, and medical office building(s) immediately to the south of the Project. There are also commercial and office uses to the north and east of the Project site. Noise abatement is generally evaluated in cases where frequent human use occurs and where a lowered noise level would be of benefit. Accordingly, this impact analysis focuses on locations with interior and exterior noise standards as defined by the City of Clovis General Plan, such as residential backyards and common use areas. Sensitive receptors in the Project study area are depicted in Figure 3. Sensitive receptors are defined as areas sensitive to noise or areas where occupants are more vulnerable to the adverse effects of noise pollution.

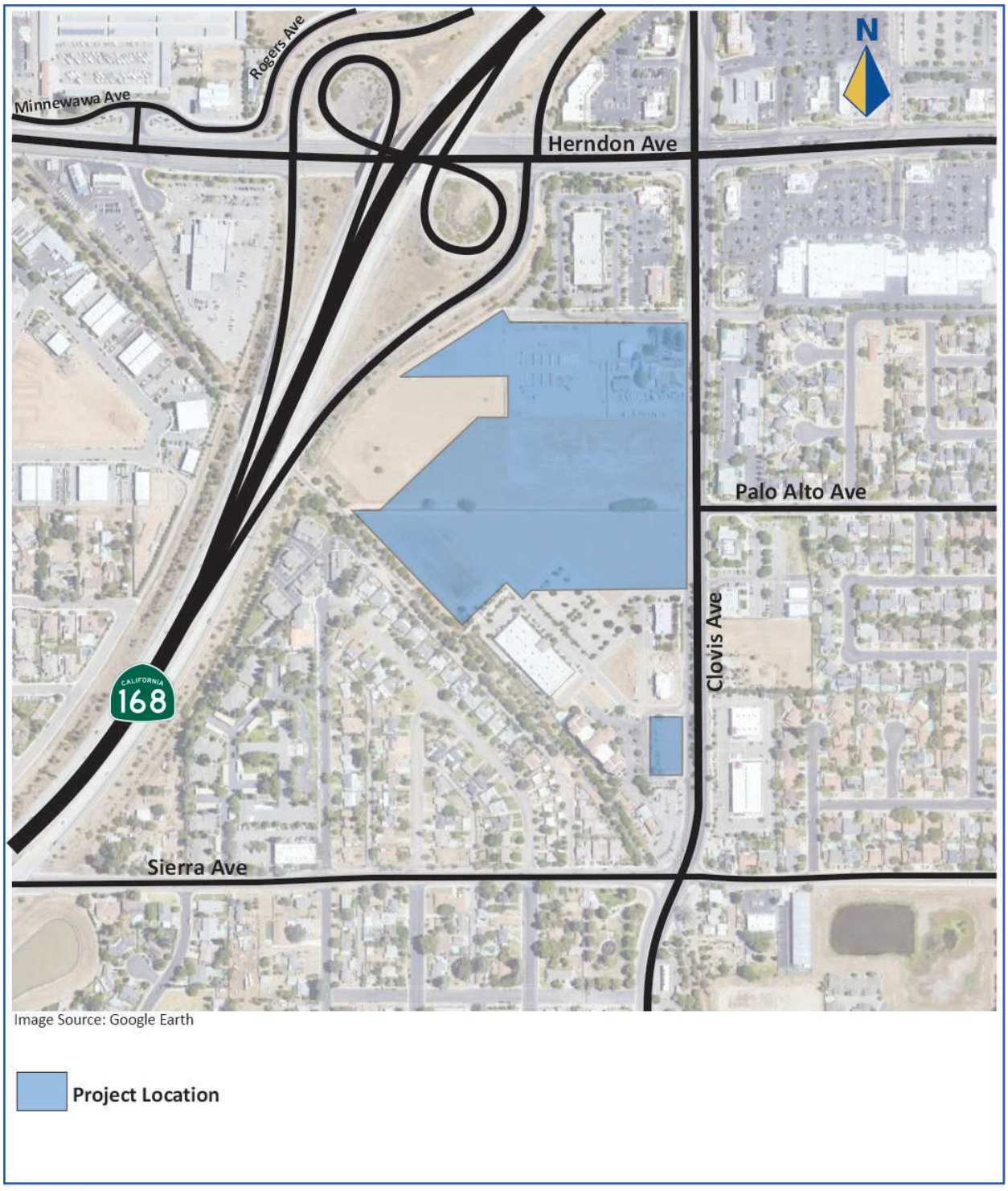


FIGURE 1
Project Location

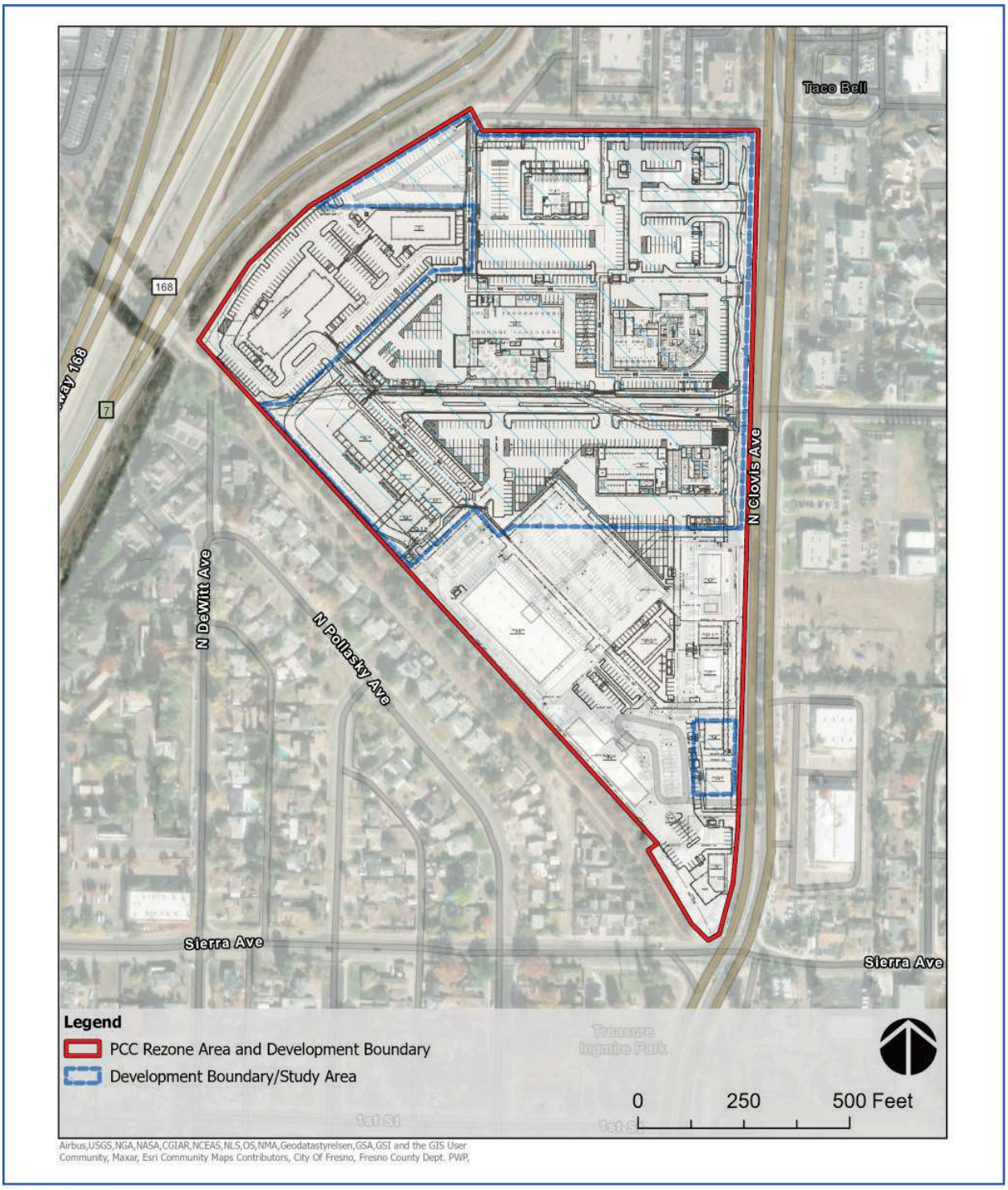


FIGURE 2
Project Site Plan

TABLE 1
EXISTING (AMBIENT) NOISE LEVELS

RECEIVER ID	LOCATION	EXISTING (BASELINE) NOISE LEVEL Leq dBA
1	Clovis Avenue, south of Palo Alto Avenue (50 ft. west of Roadway Centerline)	74.0
2	Western portion of Project site (90 ft. east of Old Town Clovis Trail)	68.5

Source: JK Consulting Group, LLC

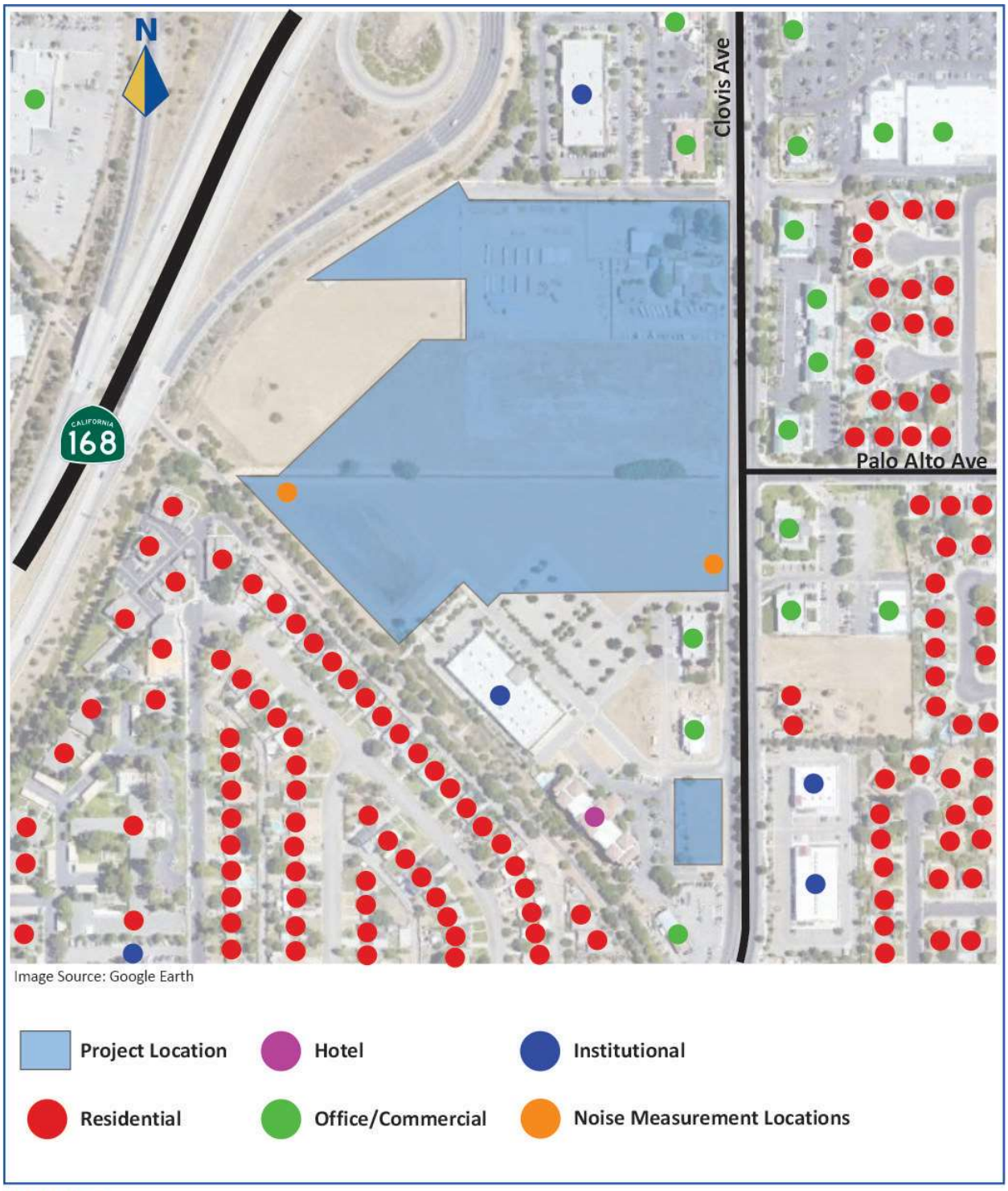


FIGURE 3
Sensitive Receptors

REGULATORY SETTING

City of Clovis General Plan

The Environmental Safety Element of the City of Clovis General Plan Policy Document provides noise guidelines for the City of Clovis and establishes the following goals and policies that would be applicable to the Project:

- **Policy 3.1 Land Use Compatibility** – Approve development and require mitigation measures to ensure existing and future land use compatibility as shown in Table 2 and the city's noise ordinance.
- **Policy 3.2 Land Use and Traffic Patterns** – Discourage land use and traffic patterns that would expose sensitive land uses or noise-sensitive areas to unacceptable noise levels.
- **Policy 3.4 Acoustical Study** – Require an acoustical study for proposed projects that have the potential to exceed acceptable noise thresholds or are exposed to existing or future noise levels in excess of the thresholds in the city's noise ordinance.
- **Policy 3.5 Site and Building Design** – Minimize noise impacts by requiring appropriate site, circulation, equipment, and building design, and sound walls, landscaping, and other buffers.
- **Policy 3.6 Noise Impacts** – Minimize or eliminate persistent, periodic, or impulsive noise impacts of business operations.
- **Policy 3.14 Control Sound at the Source** – Prioritize using noise mitigation measures to control sound at the source before buffers, soundwalls, and other perimeter measures.

The City of Clovis' Interior and Exterior Noise Standards Energy Average (CNEL) is provided in Table 3.

City of Clovis Municipal Code

The City of Clovis Municipal Code or "Clovis Municipal Code" provides rules, regulations, or standards for the City of Clovis and establishes the following unlawful noise related nuisances that would be applicable to the Project:

- **5.27.601 Loud Noise** – The making or continuing, or causing to be made and continued, of any loud, unnecessary or unusual noise which disturbs the peace and quiet of the neighborhood, or which causes discomfort or annoyance to reasonable persons of normal sensitivities residing on the property or in the area, shall be considered a nuisance.
- **5.27.602 Noise and Other Activities During Specified Hours** – No person shall make, or cause or suffer or permit to be made or caused, on any premises owned or occupied by him/her, between the hours of 11:00 p.m. and 7:00 a.m. on any Friday or Saturday, or between the hours of 10:00 p.m. and 7:00 a.m. of any other day, any sporting, business, or social event, race, or other activity in such manner as to disturb the peace and quiet of any neighborhood.

- **5.27.604 Construction Activities** – Unless otherwise expressly provided by permit, construction activities are only permitted between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturday and Sunday. From June 1st through September 15th, permitted construction activity may commence after 6:00 a.m. Monday through Friday. Extended construction work hours must at all times be in strict compliance with the permit.

PROJECT RELATED NOISE IMPACTS

Assessment Criteria

The California Environmental Quality Act (CEQA) Guidelines, Appendix G, are used to assess the potential significance of Project impacts pursuant to local General Plan policies, Municipal Code standards, or applicable standards of other agencies. Under CEQA, noise impacts would be considered significant if the project would:

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- Generate excessive groundborne vibration or groundborne noise levels?
- Expose people residing or working in the project area to excessive noise levels 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?

Noise Impacts

Construction noise impacts (short-term) are related to development of the Project. The Project has the potential to result in short-term noise impacts to surrounding land uses due to construction activity. Construction noise represents a short-term impact on ambient noise levels and includes activities such as site preparation, grading, and other construction-related activities. Long-Term impacts relate to the operation of the Project and include noise generated from site operations and increased traffic in the study area as a result of the Project. Noise impacts associated with the construction and operation of the Project were evaluated to determine if the Project will result in significant impacts on the environment.

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?

- Short-Term (Construction) Impacts

Development or construction of the Project would temporarily increase ambient noise levels in the vicinity due to construction equipment use. On-site construction noise impacts were evaluated by determining the noise levels generated by different types of construction activity and calculating the construction-related noise level at nearby sensitive receptor locations. The distance between construction site noise sources and the surrounding sensitive receptors were measured using the Project site plan and Google

Earth. Typical construction activities related to building construction generate noise levels of 74 to 84 dBA at 50 feet as shown in Table 4.

The nearest sensitive receptor(s) to the Project site (75 to 200 feet from building construction activities – See Figure 4) would be subject to short-term noise levels reaching 66 to 76 dBA Lmax from Project related construction activities considering typical construction activities as shown in Table 4 and noise attenuation due to distance. While noise from construction activities would be intermittent, it was assumed that a sound level of 76 dBA Lmax occurs for a constant duration of 15 minutes each hour during the twelve-hour construction window (7:00am to 7:00pm) as determined by the City of Clovis noise ordinance. A baseline (ambient) sound level of 68 dBA was assumed for the remaining 45-minutes. An ambient sound level of 55 dBA was assumed between 7pm and 10pm and 50 dBA was assumed between 10pm and 7am. This results in a sound level of 67 dBA Community Noise Equivalent Level (CNEL) at adjacent sensitive receptors (nearest) considering Project construction operations. A sound level of 64 dBA CNEL is expected, absent Project construction operations, assuming an ambient sound level of 68 dBA for the morning, mid-day, and afternoon peak hours (3-hour window for each), 55 Leq(h) dBA for the remaining 6-daytime hours, and 50 Leq(h) dBA for the nighttime hours. The increase in noise levels at adjacent sensitive receptors is 3 dBA with the addition of noise from Project construction operations. It should be noted that the City of Clovis does not have an established threshold for noise exposure due to a project's construction operations. For the purposes of this analysis, construction operations associated with the Project would result in a significant impact if interior noise levels established by the City of Clovis (Table 3) were exceeded. It should be noted that interior noise levels are 20-25 dB's less than exterior noise levels with windows and doors closed according to the Federal Highway Administration's (FHWA) *Techniques for Reviewing Noise Analyses and Associated Noise Reports*, June 1st, 2018.

Although there would be a relatively high single-event noise exposure potential at a maximum of 76 dBA Lmax at 125 feet, causing short-term intermittent annoyances, the effect would be an approximately 3 dBA increase in the ambient noise environment when averaged over 24 hours considering existing (ambient) noise levels in the study area. In typical noisy environments, changes in noise of 1 to 2 dB's are generally not perceptible. It is widely accepted that human perceptibility begins at increases of 3 dB in typical noisy environments. In other words, the changes in noise levels over 24 hours considering Project construction noise would just be perceptible to the normal human ear. Figure 5 shows the maximum interior noise levels at sensitive receptors considering Project construction operations. Results show that noise generated from Project construction activities would not exceed the interior noise levels of the respective land use categories as outlined in Table 3. Therefore, short-term construction-related impacts associated with the Project would result in a less than significant impact on noise-sensitive receptors adjacent to the Project site. As a result, mitigation measures are not required. It should be noted that Project construction operations must comply with Section 5.27.604 of the City of Clovis Municipal Code which sets the hours of construction between 7:00am and 7:00pm, Monday through Friday, and between 9:00am and 5:00pm on Saturday and Sunday. From June 1st through September 15th, construction activity may start after 6am, Monday through Friday.

TABLE 2
LAND USE AND NOISE COMPATIBILITY MATRIX

LAND USES	ENERGY AVERAGE (CNEL)						
Example Land Uses	**<**	**55**	**60**	**65**	**70**	**75**	**80>**
Amphitheater, concert hall, auditorium, meeting hall	B	B	C	C	D	D	D
Mobile home	A	A	B	C	C	D	D
Hospital, library, school, faith/religious uses	A	A	B	C	C	D	D
Hotel, motel, transient lodging	A	A	B	B	C	C	D
Single family, multifamily, faith/religious uses	A	A	B	B	C	D	D
Parks	A	A	A	B	C	D	D
Office building, research & development, professional office, city office building, and hotel	A	A	A	B	B	C	D
Amusement park, miniature golf, go-cart track, health club, equestrian center	A	A	A	B	B	D	D
Golf courses, nature centers, cemeteries, wildlife reserves, wildlife habitat	A	A	A	A	B	C	C
Commercial retail, bank, restaurant, movie theater	A	A	A	A	B	B	C
Automobile service station, auto dealer, manufacturing, warehousing, wholesale, utilities	A	A	A	A	B	B	B
Agriculture	A	A	A	A	A	A	A

Notes:

Compatibility zones indicate the degree to which the land uses listed are compatible with the noise levels (CNEL) shown in the table.

Zone A. Clearly Compatible. Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

Zone B. Normally Compatible. New construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Zone C. Normally Incompatible. New construction or development should normally be discouraged. If new construction or development does proceed, a detailed analysis or noise reduction requirements must be made and needed noise insulation features must be included in the design.

Zone D. Clearly Incompatible. New construction or development should generally not be undertaken.

Source: City of Clovis General Plan, August 2014

TABLE 3
INTERIOR AND EXTERIOR NOISE STANDARDS ENERGY AVERAGE (CNEL)

LAND USE CATEGORIES		ENERGY AVERAGE (CNEL)	
Primary Land Uses	**Additional Uses Allowed**	**Interior[1]**	**Exterior[2]**
Residential	Single Family, Multifamily	45[3]/55[4]	65[7]
	Mobile Home	--	65[5]
Commercial/Industrial	Hotel, motel, transient lodging	45	65[6]
	Commercial, retail, bank, restaurant	55	--
	Office building, professional office, research & development	50	--
	Gymnasium (Multipurpose)	50	--
	Health clubs	55	--
	Manufacturing, warehousing, wholesale, utilities	65	--
Institutional	Hospital, school classroom	45	65
	Church, library	45	--
Open Space	Parks	--	65

Notes:

1. Interior environment excludes bathrooms, toilets, closets, and corridors.

2. Outdoor environment limited to private yard of single family or multifamily residences private patio which is accessed by a means of exit from inside the unit; mobile home park; hospital patio; park picnic area; school playground; and hotel and motel recreation area.

3. Noise level requirement with closed windows. Mechanical ventilating system or other means of natural ventilation shall be provided pursuant to Appendix Chapter 12, Section 1208 of UBC.

4. Noise level requirement with open windows, if they are used to meet natural ventilation requirement.

5. Multi-family developments with balconies that do not meet the 65 CNEL are required to provide occupancy disclosure notices to all future tenants regarding potential noise impacts.

6. Exterior noise level shall be such that interior noise level will not exceed 45 CNEL.

7. Except those areas affected by aircraft noise.

Source: City of Clovis General Plan, August 2014

TABLE 4
CONSTRUCTION EQUIPMENT NOISE

EQUIPMENT CATEGORY	Measured Sound Levels (dBA Lmax @ 50 feet)
Auger Drill Rig	84
Backhoe	78
Boring Jack Power Unit	83
Chain Saw	84
Compactor	83
Compressor (air)	78
Concrete Mixer Truck	79
Crane	81
Dozer	82
Dump Truck	76
Excavator	81
Front End Loader	79
Generator	81
Horizontal Boring Hydraulic Jack	82
Paver	77
Roller	80
Scraper	84
Tractor	84
Vibratory Concrete Mixer	80
Welder/Torch	74

Source: U.S. Department of Transportation Federal Highway Administration (FHWA) - *Construction Noise Handbook*, August 2006

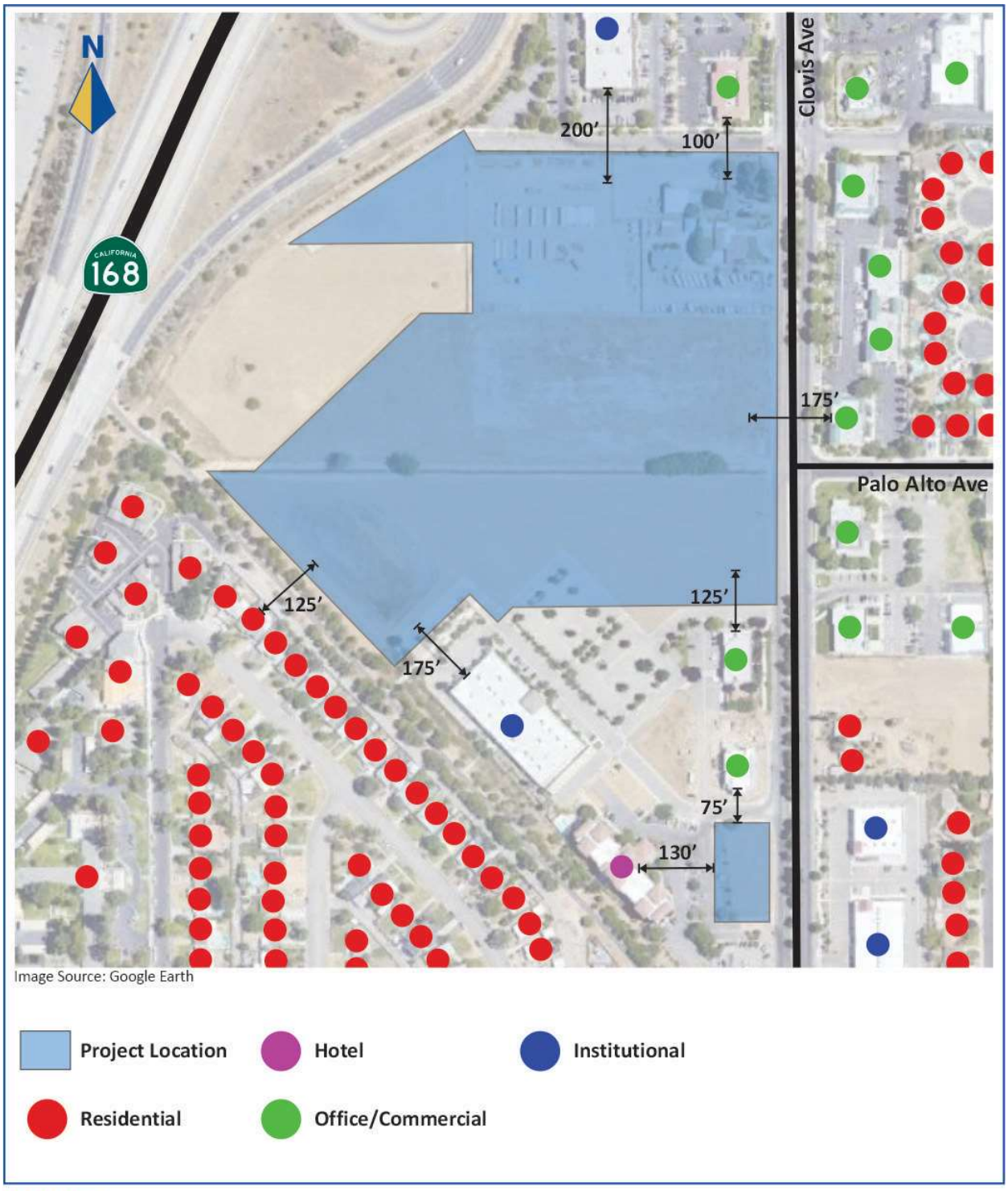


FIGURE 4
Sensitive Receptor Offsets From Construction Activities

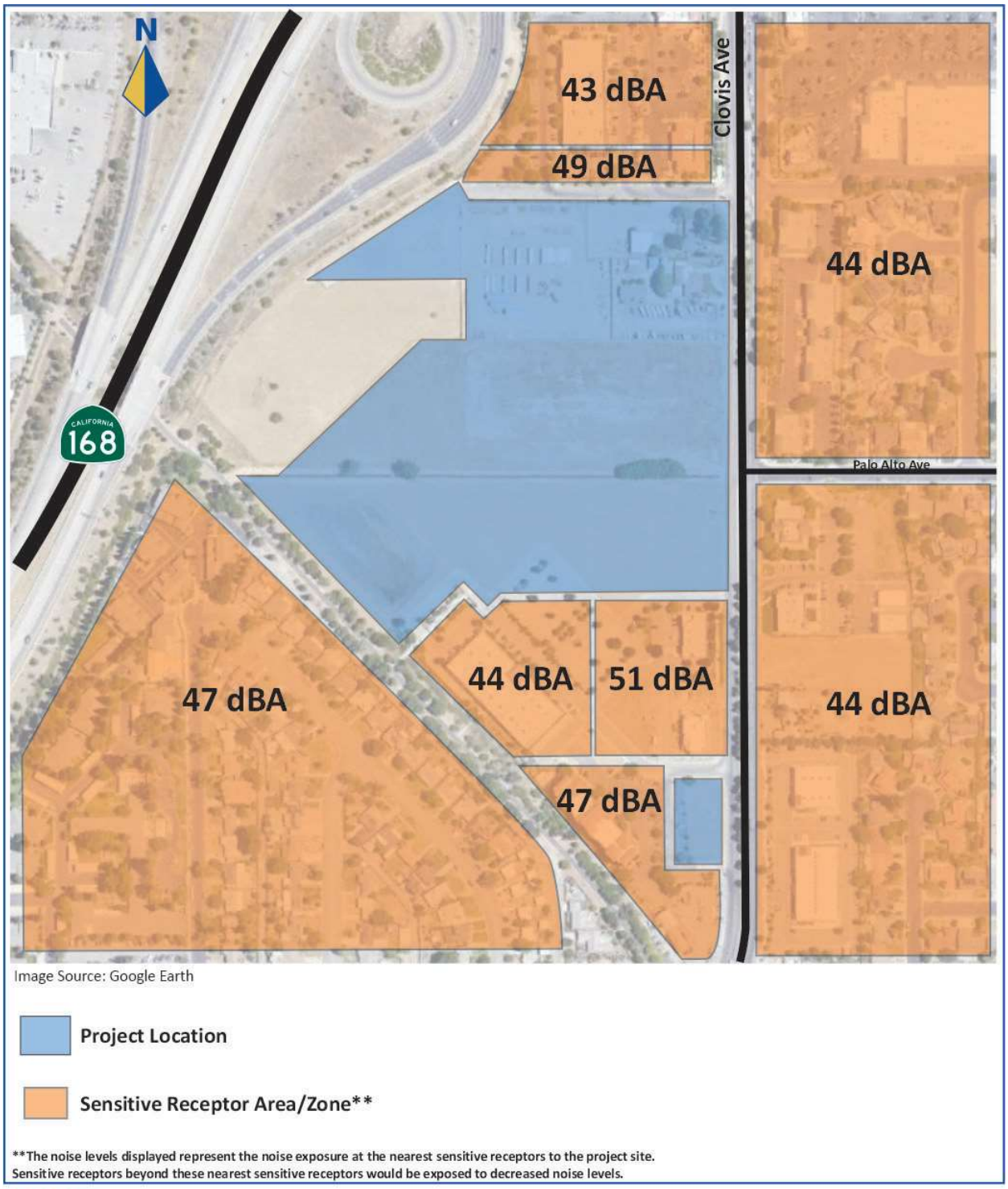


FIGURE 5

Maximum Interior Noise Levels from Project Contruction Activities

- Long-Term (Operational) Impacts

Traffic noise in the study area is primarily generated from traffic along Clovis Avenue, Herndon Avenue, and SR 168 given their connectivity to numerous areas throughout the Fresno-Clovis metropolitan area. The Environmental Safety Element of the City of Clovis General Plan Policy Document shows that the projected noise level along Clovis Avenue, Herndon Avenue, and SR 168 in the Future (2035) is approximately 60 to 70 dBA CNEL as depicted in Figure 6. This is the anticipated noise level in the future at approximately 100 feet from the roadway centerline. New trips generated by the Project would primarily use Clovis Avenue and Herndon Avenue.

The Project will generate approximately 8,881 Daily Trips, 628 AM Peak Hour Trips, and 840 PM Peak Hour Trips. Section 6.3.3 (Fundamentals of Traffic Noise) of the Technical Noise Supplement to the Traffic Noise Analysis Protocol by Caltrans indicates that it takes a doubling of traffic to increase noise levels by 3 dB's. The addition of Project trips will not double the amount of existing or future traffic in the Project area. Traffic volumes at the Clovis Avenue and Magill Avenue intersection shows that Clovis Avenue between Herndon Avenue and Sierra Avenue has an existing AM and PM peak hour segment volume of 1,140 and 2,185, respectively. The increase in traffic along Clovis Avenue as a result of the Project is approximately 475 trips in the AM Peak Hour and 581 trips in the PM Peak Hour. The increase in traffic noise levels along Clovis Avenue and the surrounding study area would be less than 3 dB with the addition of Project traffic. As noted previously, changes in noise of 1 to 2 dB's are generally not perceptible by the human ear.

Noise levels at sensitive receptors, as depicted in Figure 7, were estimated using existing traffic volumes in the study area and the Traffic Noise Model (TNM) Version 3.1. To calibrate the TNM, existing traffic counts, posted speed limits, and other data were added to the TNM. Appropriate adjustment factors were applied to modeled receptors based on existing measured noise levels as depicted in Table 1. Projected traffic volumes for Exiting Plus Project, Near-Term, and Cumulative Year scenarios, as identified in the Traffic Impact Study (TIS) prepared for the Project, and TNM 3.1 was used to estimate noise levels at sensitive receptors in the study area. Tables 5, 6, and 7 provide the predicted noise levels at sensitive receptors for Existing Plus Project, Near-Term No Project, Near-Term Plus Project, Cumulative Year (2046) No Project, and Cumulative Year (2046) Plus Project conditions. Results of the analysis show that the increase in noise levels, as a result of the Project, would be 1 dB or less.

According to Caltrans' Technical Noise Supplement to the Traffic Noise Analysis Protocol (September 2013), the CNEL is estimated to be within plus or minus 2 dB's of the peak hour Leq under normal traffic conditions. Cumulative Year (2046) Plus Project noise levels at sensitive receptors are within the City of Clovis' Land Use and Noise Compatibility Matrix (Table 2) and Interior and Exterior Noise Standards Energy Average (Table 3) noise criteria as defined in the City of Clovis General Plan. It should be noted that interior noise levels are 20-25 dB's less than exterior noise levels with windows and doors closed according to the Federal Highway Administration's (FHWA) *Techniques for Reviewing Noise Analyses and Associated Noise Reports*, June 1st, 2018.

The existing estimated noise levels at sensitive receptors 13 and 14 are 70 and 68 Leq(h) dBA, respectively, which is a result of their proximity to SR 168. The estimated noise levels at sensitive receptors 13 and 14,

as shown in Tables 5, 6, and 7, are reflective of peak hour traffic conditions along SR 168. Exterior noise levels would be reduced during off-peak and nighttime conditions. Assuming 70 Leq(h) dBA for the morning, mid-day, and afternoon peak hours (3-hour window for each), 55 Leq(h) dBA for the remaining 6-daytime hours, and 50 Leq(h) dBA for the nighttime hours (9pm-6am), sensitive receptors 13 and 14 would experience exterior noise levels of 64 – 66 dBA CNEL. Exterior noise levels are within the City of Clovis noise criteria and the roadway noise levels contours shown in Figure 6. Therefore, operational related noise impacts associated with Project traffic would result in a less than significant impact on noise-sensitive receptors adjacent to the Project site. Mitigation measures are not required.

- Project Related Stationary Point-Source Noise

While the predominant source of noise in the Project area is related to traffic noise along Clovis Avenue, Herndon Avenue, and SR 168, stationary point-source noise impacts were evaluated considering Project operations. Noise from Project operations would be consistent with other commercial/office type developments in the City of Clovis.

Drive-Thru/Customer Order Display

Noise will be generated from two restaurant drive-thrus located at the northeast corner of the Project site. The drive-thru customer order displays and idling vehicles are the most common stationary noise source generated by restaurant drive-thrus. The estimated noise level from customer order displays and idling vehicles is reflected in Table 8 and includes data from three (3) independent sources. For purposes of this analysis, the highest noise levels reflected in Table 8 were used to estimate impacts associated with the Project.

Truck Deliveries

Reference noise levels at an Albertson's Shopping Center (Ldn Consulting 2011/San Diego) was used to conservatively estimate noise from truck deliveries at the Project site. The measurements include truck drive-by noise and a single truck's engine noise. Noise levels were measured at 66.5 dBA Leq at a distance of 25 feet. For purposes of this analysis, it was assumed that trucks would idle for no more than five minutes due to state air quality requirements. As a result, it is estimated that trucks would operate for up to 15 minutes of the total time required during the delivery process (five minutes for arrival, five minutes of idling, and five minutes during departure). The average hourly noise levels from truck deliveries (assuming one delivery completed over an hour period) would equate to 60.5 dBA Leq at a distance of 25 feet.

Dealership Repair Shop

The Project includes the development of a dealership repair shop(s) which also generates noise with the potential to impact sensitive receptors. Reference noise levels from the Michigan State University College of Human Medicine and the Exposure Assessment in Auto Collision Repair Shops show that typical tools associated with a repair shops generate noise levels of 90 dBA at the sound source (5 feet). While repair shop work would be performed indoors, to be conservative, it was assumed that repairs would be performed outdoors with no noise attenuation from building interior/exterior.

HVAC Units

HVAC units would be associated with the development of the Project site. Specific equipment/data for HVAC units to be included with the development of the Project was not known at the time this analysis was prepared. Representative sound power levels for the 2-ton Carrier 38HDRD018 was used for this analysis since it is a HVAC unit used for commercial type buildings. The manufacturer's noise data (See attachments for specifications) indicates a standard noise rating of 68 dBA at 25 feet.

Cumulative Project Related Stationary Noise Sources

Caltrans' Technical Noise Supplement to the Traffic Noise Analysis Protocol (September 2013) provides methodology (Table 9) for determining the approximate noise level at sensitive receptors considering multiple noise sources. This methodology was used in determining impacts to sensitive receptors in the Project area as depicted in Figure 4. Table 10 shows the maximum noise levels generated by the restaurant drive-thrus, truck deliveries, dealership repair shops, and the HVAC units at a distance of 100 feet. Figure 8 shows the maximum noise levels at sensitive receptors considering Project site operations. Results show that stationary noise sources would not exceed 54 dBA considering the combined noise generated by the drive-thru customer display-idling vehicle area, truck deliveries, dealership repair shops, and HVAC unit. This equates to 60 dBA CNEL assuming adjacent sensitive receptors were solely impacted by Project stationary noise sources that operated for a 24-hour period. Impacts from Project stationary noise sources at sensitive receptors are within the City of Clovis' Land Use and Noise Compatibility Matrix (Table 2) and Interior and Exterior Noise Standards Energy Average (Table 3) noise criteria as defined in the City of Clovis General Plan. Therefore, operational related noise impacts associated with Project stationary noise sources would result in a less than significant impact on noise-sensitive receptors adjacent to the Project site. Mitigation measures are not required.

b) Generation of excessive ground-borne vibration or ground-borne noise levels?

Ground-borne vibration impacts were evaluated by identifying potential vibration sources and measuring the distance between vibration sources and surrounding structure locations. It should be noted that the City of Clovis does not have established criteria for vibration impacts. However, the City of Clovis General Plan relies upon Federal Transit Administration (FTA) criteria in determining acceptable levels of groundborne vibration and vibration thresholds in terms of human annoyance. As shown in Table 5.12-3 (Reaction of People and Damage to Buildings for Continuous/Frequent Intermittent Vibration Levels) of the City of Clovis General Plan, a velocity level of 0.02 in/sec PPV is barely perceptible by human beings while 0.08 in/sec PPV is distinctly perceptible. A vibration threshold of 0.04 in/sec PPV was used to estimate the impact of vibrations from construction activities associated with the Project.

The predicted vibration velocity levels for sensitive receptors adjacent to the Project are predicted to approach 0.026 in/sec using a Vibratory Roller level (0.210 at 25ft) as shown in Table 11. The level of vibration generated by the Project's construction phase is considered less than significant based on vibration velocity levels presented in Table 11 and the location of sensitive receptors as shown in Figure 4. As a result, mitigation measures are not required.

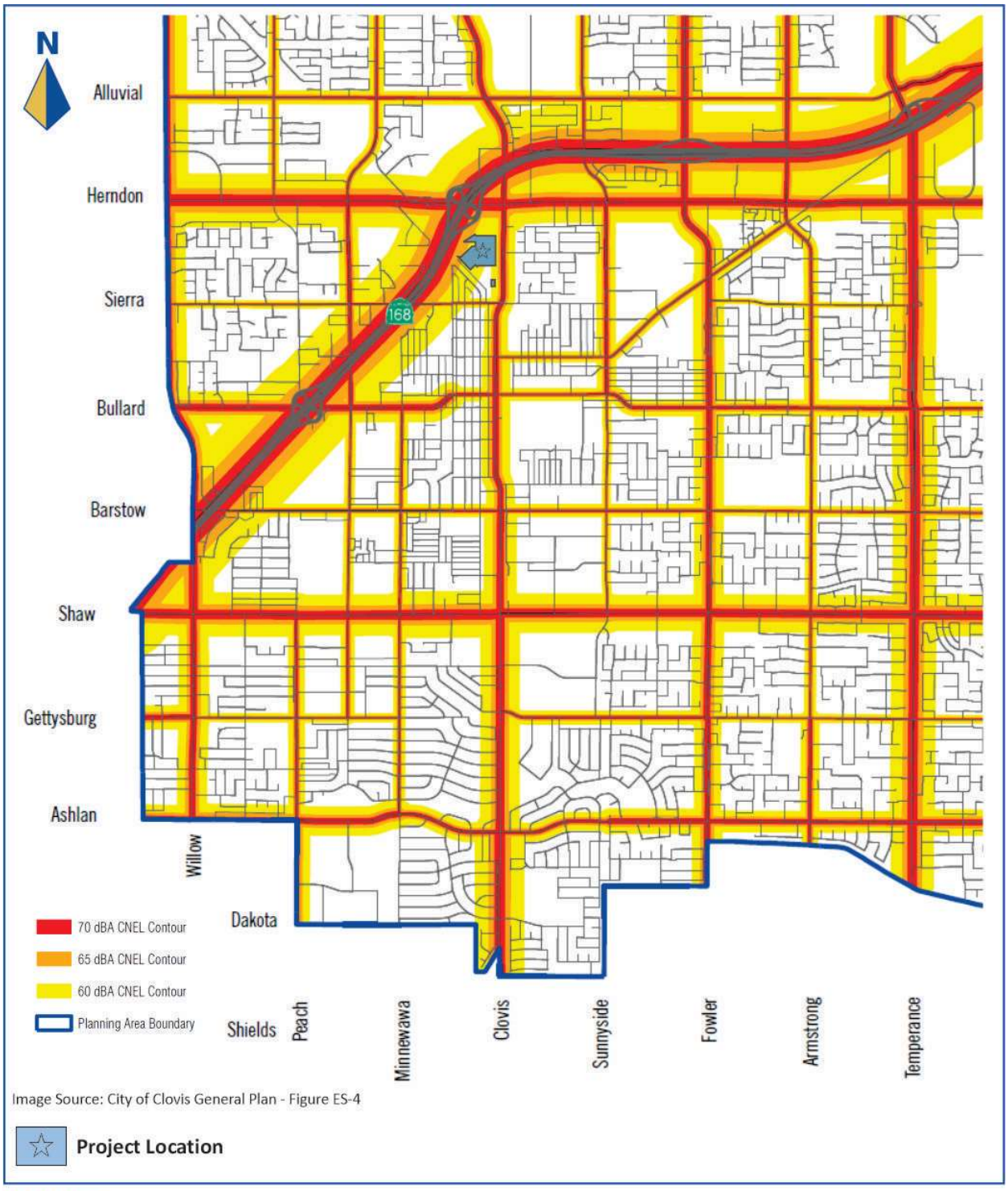


FIGURE 6

City of Clovis General Plan - Future Roadway Noise Level Contours

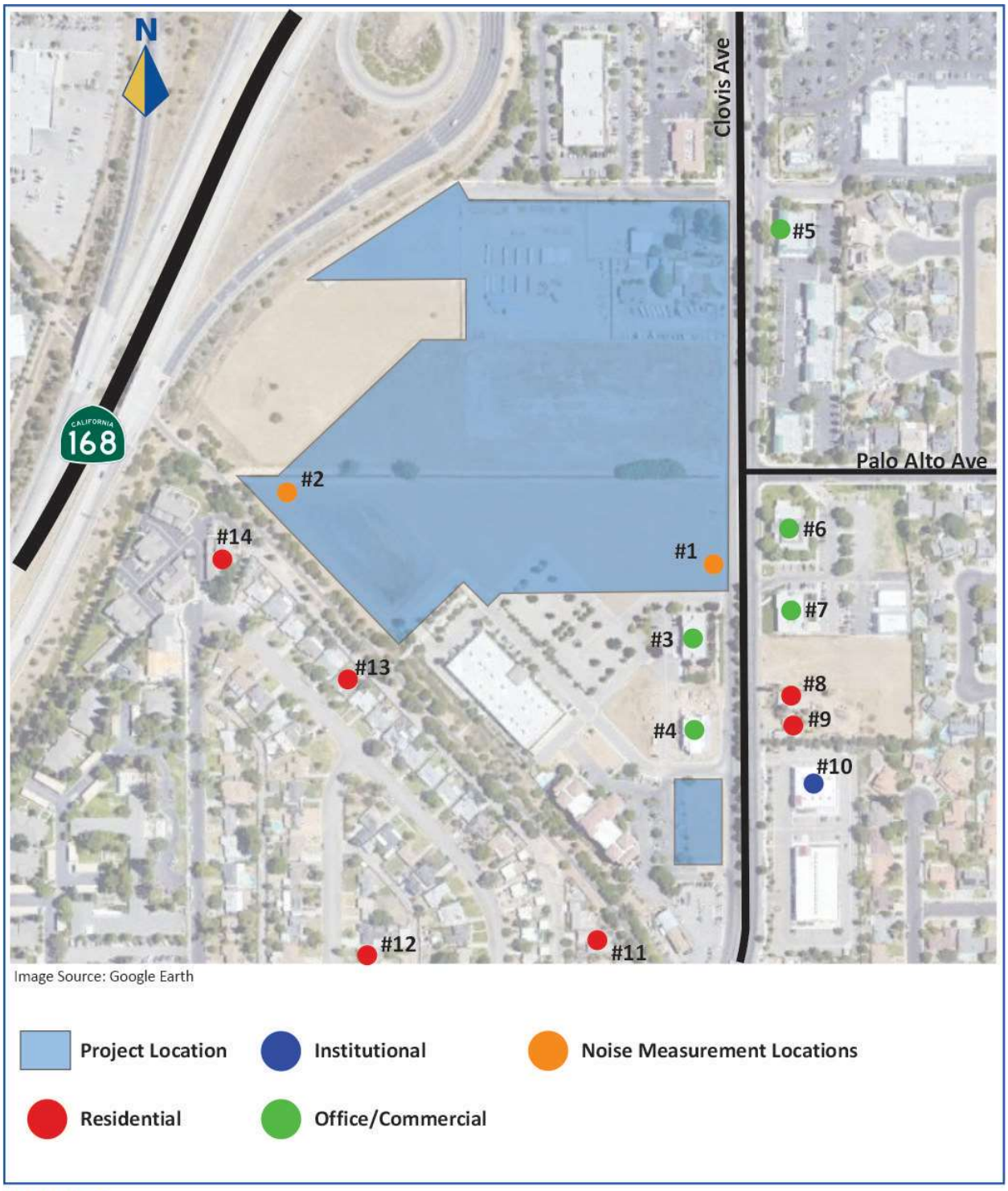


FIGURE 7
Modeled Sensitive Receptors

TABLE 5
EXISTING PLUS PROJECT NOISE CONDITONS

SENSITIVE RECEPTOR ID	LAND USE	ESTIMATED EXISTING NOISE LEVEL Leq(h) dBA	EXISTING PLUS PROJECT NOISE LEVEL Leq(h) dBA	CHANGE IN NOISE LEVEL Leq(h) dBA
3	Office/Commercial	67.0	68.0	1.0
4	Office/Commercial	67.0	68.0	1.0
5	Office/Commercial	65.0	66.0	1.0
6	Office/Commercial	66.0	66.0	0.0
7	Office/Commercial	66.0	66.0	0.0
8	Residential	62.0	62.0	0.0
9	Residential	62.0	62.0	0.0
10	Institutional	63.0	64.0	1.0
11	Residential	61.0	62.0	1.0
12	Residential	61.0	62.0	1.0
13	Residential	70.0	71.0	1.0
14	Residential	68.0	69.0	1.0

Source: JK Consulting Group, LLC

TABLE 6
NEAR-TERM NOISE CONDITONS

SENSITIVE RECEPTOR ID	LAND USE	NEAR-TERM NO PROJECT NOISE LEVEL Leq(h) dBA	NEAR-TERM PLUS PROJECT NOISE LEVEL Leq(h) dBA	CHANGE IN NOISE LEVEL Leq(h) dBA
3	Office/Commercial	67.0	68.0	1.0
4	Office/Commercial	67.0	68.0	1.0
5	Office/Commercial	66.0	66.0	0.0
6	Office/Commercial	66.0	67.0	1.0
7	Office/Commercial	66.0	67.0	1.0
8	Residential	62.0	63.0	1.0
9	Residential	62.0	63.0	1.0
10	Institutional	64.0	65.0	1.0
11	Residential	62.0	62.0	0.0
12	Residential	61.0	62.0	1.0
13	Residential	70.0	71.0	1.0
14	Residential	68.0	69.0	1.0

Source: JK Consulting Group, LLC

TABLE 7
CUMULATIVE YEAR (2046) NOISE CONDITONS

SENSITIVE RECEPTOR ID	LAND USE	CUMULATIVE YEAR NO PROJECT NOISE LEVEL Leq(h) dBA	CUMULATIVE YEAR PLUS PROJECT NOISE LEVEL Leq(h) dBA	CHANGE IN NOISE LEVEL Leq(h) dBA	ESTIMATED EXISTING NOISE LEVEL Leq(h) dBA	CHANGE IN NOISE LEVEL FROM EXISTING Leq(h) dBA
3	Office/Commercial	67.0	68.0	1.0	67.0	1.0
4	Office/Commercial	67.0	68.0	1.0	67.0	1.0
5	Office/Commercial	66.0	66.0	0.0	65.0	1.0
6	Office/Commercial	66.0	67.0	1.0	66.0	1.0
7	Office/Commercial	66.0	67.0	1.0	66.0	1.0
8	Residential	62.0	63.0	1.0	62.0	1.0
9	Residential	62.0	63.0	1.0	62.0	1.0
10	Institutional	64.0	65.0	1.0	63.0	2.0
11	Residential	62.0	62.0	0.0	61.0	1.0
12	Residential	62.0	62.0	0.0	61.0	1.0
13	Residential	70.0	71.0	1.0	70.0	1.0
14	Residential	68.0	69.0	1.0	68.0	1.0

Source: JK Consulting Group, LLC

TABLE 8
REFERENCE NOISE LEVEL MEASUREMENTS

NOISE SOURCE	Distance from Noise Source (feet)	Reference Noise Level (dBA Leq)
Two Drive-Thru Customer Order Displays and Idling Vehicles [1]	20.0	64.0
One Drive-Thru Customer Order Display and Idling Vehicles [2]	20.0	59.0
Two Drive-Thru Customer Order Displays [3]	4 / 20	68 / 54

1: Noise Expert, LLC - Noise Analysis for Proposed McDonalds, November 2014
2: Extant Acoustical Consulting, LLC - 645 Horning Street Environmental Noise Assessment, February 2017
3: 3M XT-1 Intercom System Manufacturer Specifications (Considering two intercom systems). Caltrans methodolgy used to estimate noise levels at a distance of 20 feet

TABLE 9
DECIBEL ADDITION

WHEN TWO DECIBEL VALUES DIFFER BY:	ADD THIS AMOUNT TO THE HIGHER VALUE:	EXAMPLE:
0 or 1 dB	3 dB	70+69 = 73
2 or 3 dB	2 dB	74+71 = 76
4 to 9 dB	1 dB	66+60 = 67
10 dB or more	0 dB	65+55 = 65

Source: Caltrans Technical Noise Supplement

TABLE 10
PROJECT STATIONARY NOISE SOURCE MAXIMUM NOISE LEVELS

STATIONARY NOISE SOURCE	Maximum Sound Level (Leq dBA) at 100 feet
Drive-Thru/Customer Order Display	53.0
Truck Deliveries	49.0
Dealership Repair Shop(s)	64.0
HVAC Unit(s)	42.0

Source: JK Consulting Group, LLC

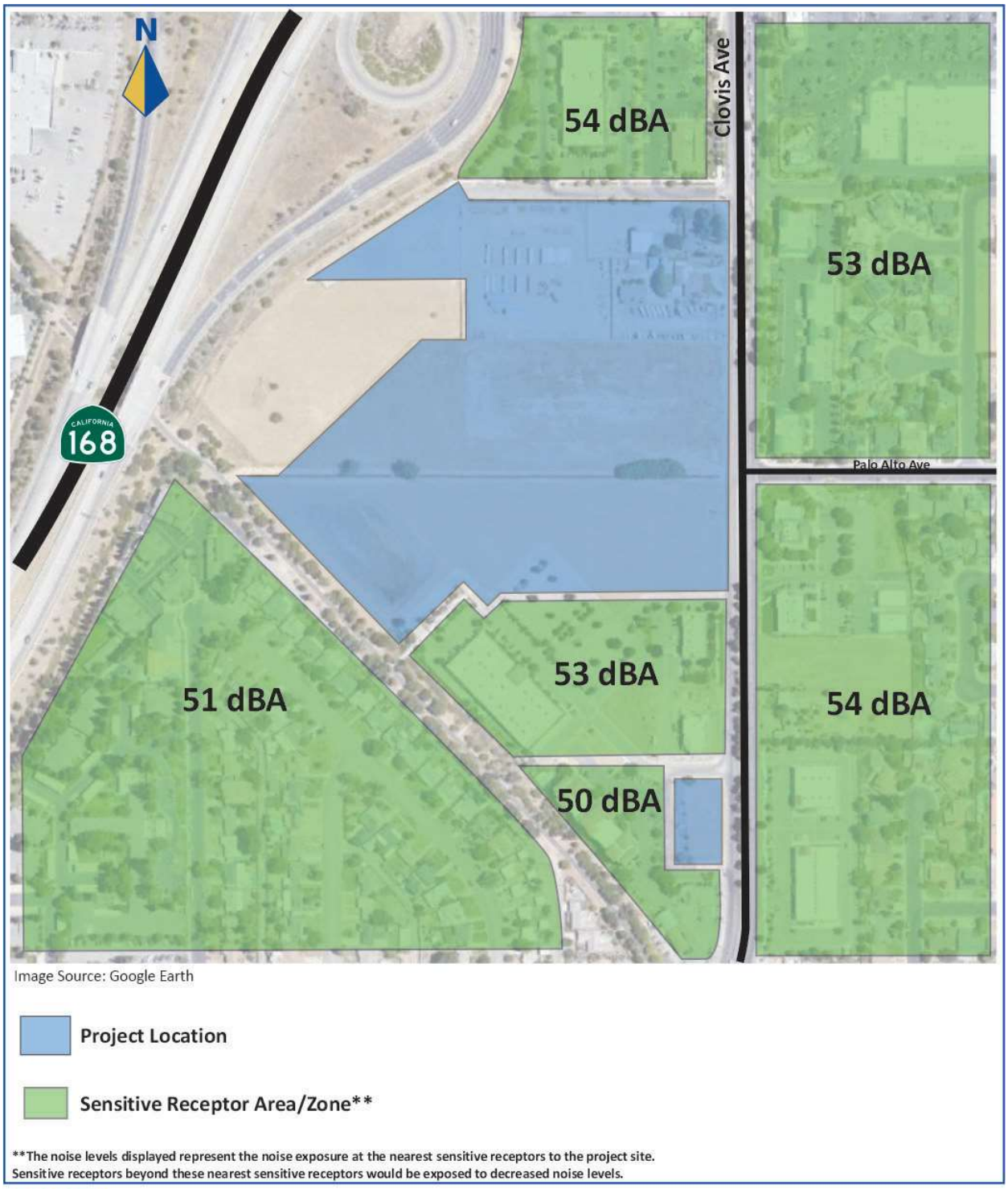


FIGURE 8

Maximum Noise Levels from Project Stationary Sources

TABLE 11
VIBRATION LEVELS

EQUIPMENT CATEGORY	PPV at 25 ft. (in/sec)[1]	PPV at 75 ft. (in/sec)	PPV at 100 ft. (in/sec)
Clam Shovel Drop	0.202	0.025	0.025
Vibratory Roller	0.210	0.026	0.026
Hoe Ram	0.089	0.017	0.011
Large Bulldozer	0.089	0.017	0.011
Caisson Drilling	0.089	0.017	0.011
Loaded Trucks	0.076	0.015	0.010
Jackhammer	0.035	0.007	0.004
Small Bulldozer	0.003	0.001	0.000

Source: JK Consulting Group, LLC

1 -Transit Noise and Vibration Impact Assessment, United States Department of Transportation, Office of Planning Environment, Federal Trnasit Administration, May 2006

c) Expose people residing or working in the project area to excessive noise levels 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?

The Project site is not located within two miles of a private airstrip, public airport, or public use airport. The Fresno Yosemite International Airport is located approximately four (4) miles south of the Project and the Sierra Skypark Airport is located nine (9) miles to the west. The Fresno Chandler Executive Airport is located ten (10) miles southwest of the Project site. As a result, aircraft noise is not expected to result in significant impacts in the Project Area. Therefore, mitigation measures are not required.

SUMMARY

The significance criteria established by the City of Clovis are used for determining environmental significance. These screening criteria can be used to demonstrate that a project's noise impacts would not result in a significant impact as defined by CEQA. As discussed above, the Project will have a less than significant impact on the environment as it relates to Noise.

Should you have any further questions or comments, please contact me by phone at (559) 246-4204 or by email at jellard@jkconsultinggroupllc.com.

Sincerely,

Jason Ellard, Principal
JK Consulting Group, LLC

Attachment – Traffic Noise Model (TNM) 3.1 Worksheets

REFERENCES

- **City of Clovis** – *General Plan*. August 2014
- **Placeworks** – Final Program Environmental Impact Report – *General Plan and Development Code Update*. September 2014.
- **City of Clovis** – Municipal Code. January 8, 2024
- **California Department of Transportation** – *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. September 2013
- **California Department of Transportation** – *Transportation and Construction Vibration Guidance Manual*. April 2020
- **Noise Expert, LLC** – *Noise Analysis: Proposed McDonald's Restaurant*. November 2014
- **Extant Acoustical Consulting, LLC** – *645 Horning Street Environmental Noise Assessment*. February, 27, 2017
- **Carrier** – HVAC Technical Data: *38HDR Performance Series Air Conditioner*
- **3M Wireless Communication System** – Technical Data: *Wireless Communication System Model XT-1*
- **Michigan State University College of Human Medicine** – Auto Brochure. November 12, 2012
- **Bejan A, Brosseau LM, Parker DL** – *Exposure Assessment in Auto Collision Repair Shops*. July 2011
- **Federal Highway Administration** – *Techniques for Reviewing Noise Analyses and Associated Noise Reports*, June 1st, 2018.

TNM 3.1 Worksheets

REPORT:	**Results: Sound Levels - No Barrier Objects**		
TNM VERSION	3.1.7970.37608	REPORT DATE:	12 May 2024
CALCULATED WITH:	3.1.7970.37608	CALCULATION DATE:	5/12/2024 11:13:11 PM
CASE:	Existing Conditions Scenario	ORGANIZATION:	Clovis Golden Triangle PCC
UNITS:	English	ANALYSIS BY:	VRPA Technologies, Inc.
DEFAULT GROUND TYPE:	HardSoil	PROJECT/CONTRACT	Clovis Golden Triangle PCC
ATMOSPHERICS:	68°F, 50%	Average pavement type shall be used unless a state highway agency substantiates the use of a different type with approval FHWA.	
PAVEMENT TYPE(S) USED:	Average		

Receiver				Modeled Traffic Noise Levels				
				LAeq		Increase over Existing		
Name	No.	Nb. R.R.	Existing LAeq	Calc.	Absolute Criterion	Calc.	Relative Criterion	Type of Impact
			dBA	dBA	dBA	dBA	dBA	
Receptor-1	1	1	---	68.1	0.0	---	---	Sound Level
Receptor-2	2	1	---	68.5	0.0	---	---	Sound Level
Receptor-3	3	1	---	67.0	0.0	---	---	Sound Level
Receptor-4	4	1	---	67.1	0.0	---	---	Sound Level
Receptor-5	5	1	---	65.2	0.0	---	---	Sound Level
Receptor-6	6	1	---	65.6	0.0	---	---	Sound Level
Receptor-7	7	1	---	65.6	0.0	---	---	Sound Level
Receptor-8	8	1	---	61.5	0.0	---	---	Sound Level
Receptor-9	9	1	---	61.5	0.0	---	---	Sound Level
Receptor-10	10	1	---	63.4	0.0	---	---	Sound Level
Receptor-11	11	1	---	61.3	0.0	---	---	Sound Level
Receptor-12	12	1	---	61.3	0.0	---	---	Sound Level
Receptor-13	13	1	---	70.1	0.0	---	---	Sound Level
Receptor-14	14	1	---	68.1	0.0	---	---	Sound Level

REPORT:	**Results: Sound Levels - No Barrier Objects**		
TNM VERSION	3.1.7970.37608	REPORT DATE:	12 May 2024
CALCULATED WITH:	3.1.7970.37608	CALCULATION DATE:	5/12/2024 11:19:50 PM
CASE:	Existing Plus Project Scenario	ORGANIZATION:	Clovis Golden Triangle PCC
UNITS:	English	ANALYSIS BY:	VRPA Technologies, Inc.
DEFAULT GROUND TYPE:	HardSoil	PROJECT/CONTRACT	Clovis Golden Triangle PCC
ATMOSPHERICS:	68°F, 50%	Average pavement type shall be used unless a state highway agency substantiates the use of a different type with approval FHWA.	
PAVEMENT TYPE(S) USED:	Average		

Receiver				Modeled Traffic Noise Levels				
				LAeq		Increase over Existing		
Name	No.	Nb. R.R.	Existing LAeq	Calc.	Absolute Criterion	Calc.	Relative Criterion	Type of Impact
			dBA	dBA	dBA	dBA	dBA	
Receptor-3	3	1	---	68.0	0.0	---	---	Sound Level
Receptor-4	4	1	---	68.2	0.0	---	---	Sound Level
Receptor-5	5	1	---	66.1	0.0	---	---	Sound Level
Receptor-6	6	1	---	66.5	0.0	---	---	Sound Level
Receptor-7	7	1	---	66.5	0.0	---	---	Sound Level
Receptor-8	8	1	---	62.4	0.0	---	---	Sound Level
Receptor-9	9	1	---	62.4	0.0	---	---	Sound Level
Receptor-10	10	1	---	64.3	0.0	---	---	Sound Level
Receptor-11	11	1	---	61.8	0.0	---	---	Sound Level
Receptor-12	12	1	---	61.5	0.0	---	---	Sound Level
Receptor-13	13	1	---	70.9	0.0	---	---	Sound Level
Receptor-14	14	1	---	68.9	0.0	---	---	Sound Level

REPORT:	**Results: Sound Levels - No Barrier Objects**		
TNM VERSION	3.1.7970.37608	REPORT DATE:	12 May 2024
CALCULATED WITH:	3.1.7970.37608	CALCULATION DATE:	5/12/2024 11:24:39 PM
CASE:	Near-Term No Project Scenario	ORGANIZATION:	Clovis Golden Triangle PCC
UNITS:	English	ANALYSIS BY:	VRPA Technologies, Inc.
DEFAULT GROUND TYPE:	HardSoil	PROJECT/CONTRACT	Clovis Golden Triangle PCC
ATMOSPHERICS:	68°F, 50%	Average pavement type shall be used unless a state highway agency substantiates the use of a different type with approval FHWA.	
PAVEMENT TYPE(S) USED:	Average		

Receiver				Modeled Traffic Noise Levels				
				LAeq		Increase over Existing		
Name	No.	Nb. R.R.	Existing LAeq	Calc.	Absolute Criterion	Calc.	Relative Criterion	Type of Impact
			dBA	dBA	dBA	dBA	dBA	
Receptor-3	3	1	---	67.3	0.0	---	---	Sound Level
Receptor-4	4	1	---	67.4	0.0	---	---	Sound Level
Receptor-5	5	1	---	65.6	0.0	---	---	Sound Level
Receptor-6	6	1	---	66.0	0.0	---	---	Sound Level
Receptor-7	7	1	---	66.0	0.0	---	---	Sound Level
Receptor-8	8	1	---	61.8	0.0	---	---	Sound Level
Receptor-9	9	1	---	61.8	0.0	---	---	Sound Level
Receptor-10	10	1	---	63.7	0.0	---	---	Sound Level
Receptor-11	11	1	---	61.5	0.0	---	---	Sound Level
Receptor-12	12	1	---	61.3	0.0	---	---	Sound Level
Receptor-13	13	1	---	70.4	0.0	---	---	Sound Level
Receptor-14	14	1	---	68.3	0.0	---	---	Sound Level

REPORT:	**Results: Sound Levels - No Barrier Objects**		
TNM VERSION	3.1.7970.37608	REPORT DATE:	12 May 2024
CALCULATED WITH:	3.1.7970.37608	CALCULATION DATE:	5/12/2024 11:36:48 PM
CASE:	Near-Term Plus Project Scenario	ORGANIZATION:	Clovis Golden Triangle PCC
UNITS:	English	ANALYSIS BY:	VRPA Technologies, Inc.
DEFAULT GROUND TYPE:	HardSoil	PROJECT/CONTRACT	Clovis Golden Triangle PCC
ATMOSPHERICS:	68°F, 50%	Average pavement type shall be used unless a state highway agency substantiates the use of a different type with approval FHWA.	
PAVEMENT TYPE(S) USED:	Average		

Receiver				Modeled Traffic Noise Levels				
				LAeq		Increase over Existing		
Name	No.	Nb. R.R.	Existing LAeq	Calc.	Absolute Criterion	Calc.	Relative Criterion	Type of Impact
			dBA	dBA	dBA	dBA	dBA	
Receptor-3	3	1	---	68.3	0.0	---	---	Sound Level
Receptor-4	4	1	---	68.4	0.0	---	---	Sound Level
Receptor-5	5	1	---	66.4	0.0	---	---	Sound Level
Receptor-6	6	1	---	66.8	0.0	---	---	Sound Level
Receptor-7	7	1	---	66.8	0.0	---	---	Sound Level
Receptor-8	8	1	---	62.7	0.0	---	---	Sound Level
Receptor-9	9	1	---	62.7	0.0	---	---	Sound Level
Receptor-10	10	1	---	64.6	0.0	---	---	Sound Level
Receptor-11	11	1	---	62.1	0.0	---	---	Sound Level
Receptor-12	12	1	---	61.6	0.0	---	---	Sound Level
Receptor-13	13	1	---	71.1	0.0	---	---	Sound Level
Receptor-14	14	1	---	69.1	0.0	---	---	Sound Level

REPORT:	**Results: Sound Levels - No Barrier Objects**		
TNM VERSION	3.1.7970.37608	REPORT DATE:	12 May 2024
CALCULATED WITH:	3.1.7970.37608	CALCULATION DATE:	5/12/2024 11:47:19 PM
CASE:	Cumulative Year No Project Scenario	ORGANIZATION:	Clovis Golden Triangle PCC
UNITS:	English	ANALYSIS BY:	VRPA Technologies, Inc.
DEFAULT GROUND TYPE:	HardSoil	PROJECT/CONTRACT	Clovis Golden Triangle PCC
ATMOSPHERICS:	68°F, 50%	Average pavement type shall be used unless a state highway agency substantiates the use of a different type with approval FHWA.	
PAVEMENT TYPE(S) USED:	Average		

Receiver				Modeled Traffic Noise Levels				
				LAeq		Increase over Existing		
Name	No.	Nb. R.R.	Existing LAeq	Calc.	Absolute Criterion	Calc.	Relative Criterion	Type of Impact
			dBA	dBA	dBA	dBA	dBA	
Receptor-3	3	1	---	67.3	0.0	---	---	Sound Level
Receptor-4	4	1	---	67.4	0.0	---	---	Sound Level
Receptor-5	5	1	---	65.6	0.0	---	---	Sound Level
Receptor-6	6	1	---	66.0	0.0	---	---	Sound Level
Receptor-7	7	1	---	66.0	0.0	---	---	Sound Level
Receptor-8	8	1	---	61.8	0.0	---	---	Sound Level
Receptor-9	9	1	---	61.8	0.0	---	---	Sound Level
Receptor-10	10	1	---	63.7	0.0	---	---	Sound Level
Receptor-11	11	1	---	61.6	0.0	---	---	Sound Level
Receptor-12	12	1	---	61.5	0.0	---	---	Sound Level
Receptor-13	13	1	---	70.4	0.0	---	---	Sound Level
Receptor-14	14	1	---	68.4	0.0	---	---	Sound Level

REPORT:	**Results: Sound Levels - No Barrier Objects**		
TNM VERSION	3.1.7970.37608	REPORT DATE:	12 May 2024
CALCULATED WITH:	3.1.7970.37608	CALCULATION DATE:	5/12/2024 11:52:45 PM
CASE:	Cumulative Year Plus Project Scenario	ORGANIZATION:	Clovis Golden Triangle PCC
UNITS:	English	ANALYSIS BY:	VRPA Technologies, Inc.
DEFAULT GROUND TYPE:	HardSoil	PROJECT/CONTRACT	Clovis Golden Triangle PCC
ATMOSPHERICS:	68°F, 50%	Average pavement type shall be used unless a state highway agency substantiates the use of a different type with approval FHWA.	
PAVEMENT TYPE(S) USED:	Average		

Receiver				Modeled Traffic Noise Levels				
				LAeq		Increase over Existing		
Name	No.	Nb. R.R.	Existing LAeq	Calc.	Absolute Criterion	Calc.	Relative Criterion	Type of Impact
			dBA	dBA	dBA	dBA	dBA	
Receptor-3	3	1	---	68.3	0.0	---	---	Sound Level
Receptor-4	4	1	---	68.5	0.0	---	---	Sound Level
Receptor-5	5	1	---	66.4	0.0	---	---	Sound Level
Receptor-6	6	1	---	66.8	0.0	---	---	Sound Level
Receptor-7	7	1	---	66.8	0.0	---	---	Sound Level
Receptor-8	8	1	---	62.7	0.0	---	---	Sound Level
Receptor-9	9	1	---	62.7	0.0	---	---	Sound Level
Receptor-10	10	1	---	64.6	0.0	---	---	Sound Level
Receptor-11	11	1	---	62.2	0.0	---	---	Sound Level
Receptor-12	12	1	---	61.8	0.0	---	---	Sound Level
Receptor-13	13	1	---	71.2	0.0	---	---	Sound Level
Receptor-14	14	1	---	69.2	0.0	---	---	Sound Level

APPENDIX E

Vehicles Miles Traveled Analysis

Revised Vehicle Miles Traveled Analysis

Golden Triangle

Located on the Southwest Quadrant of Clovis Avenue at Magill Avenue

In the City of Clovis, California

Prepared for

Legacy Realty & Development
5390 East Pine Avenue
Fresno, CA 93727

October 2, 2024

Project No. 006-047

Traffic Engineering, Transportation Planning, & Parking Solutions
516 W. Shaw Ave., Ste. 103
Fresno, CA 93710
Phone: (559) 570-8991
www.JLBtraffic.com

Traffic Engineering, Transportation Planning, & Parking Solutions

Revised Vehicle Miles Traveled Analysis

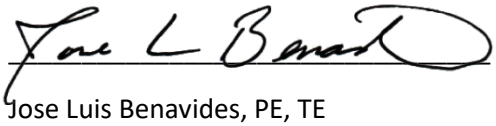
For the Golden Triangle located on the Southwest Quadrant of Clovis Avenue at Magill Avenue

In the City of Clovis, CA

October 2, 2024

This Revised Vehicle Miles Traveled Analysis Report has been prepared under the direction of a licensed Traffic Engineer. The licensed Traffic Engineer attests to the technical information contained therein and has judged the qualifications of any technical specialists providing engineering data from which recommendations, conclusions and decisions are based.

Prepared by:



Jose Luis Benavides, PE, TE
President

Traffic Engineering, Transportation Planning, & Parking Solutions
516 W. Shaw Ave., Ste. 103
Fresno, CA 93704
Phone: (559) 570-8991
www.JLBtraffic.com

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Project Description

This report describes a **Revised Vehicle Miles Traveled Analysis (VMT) Analysis** prepared **by JLB Traffic Engineering, Inc. (JLB)** for the **Golden Triangle (Project)** located on the Southwest Quadrant of Clovis Avenue at Magill Avenue in the City of Clovis. The Project proposes to develop auto dealerships, a brewery with ancillary buildings, general office buildings, general retail buildings and fast food restaurants with drive through windows. The Project will displace existing buildings. These buildings include a used car dealership, RV storage, general storage and single family residential. Based on information provided to JLB, the Project is consistent with the City of Clovis *General Plan*. A Project Site Plan is shown in Exhibit A.

Project Trip Generation

The trip generation rates for the proposed Project were obtained from the 11th Edition of the Trip Generation Manual published by the Institute of Transportation Engineers (ITE). Table II presents the trip generation for the proposed Project with trip generation rates for General Office Building (710), Strip Retail Plaza (822), Automobile Sales – New (840), Fast-Food Restaurant with Drive-Through (934), Wine Tasting Room (970), Brewery Tap Room (971) and Banquet Hall. At buildout, the proposed Project is estimated to generate approximately 8,881 daily trips, 628 AM peak hour trips and 840 PM peak hour trips.

Table I: Project Trip Generation

Land Use (ITE Code)	*Size*	*Unit*	*Daily*		*AM Peak Hour*						*PM Peak Hour*					
			Rate	*Total*	*Trip Rate*	*In*	*Out*	*In*	*Out*	*Total*	*Trip Rate*	*In*	*Out*	*In*	*Out*	*Total*
						%						*%*				
General Office Building (710)	15.000	KSF	10.84	163	1.52	88	12	20	3	23	1.44	17	83	4	18	22
Strip Retail Plaza (<40k) (822)	13.396	KSF	54.45	729	2.36	60	40	19	13	32	6.59	50	50	44	44	88
Automobile Sales (New) (840)	133.963	KSF	27.84	3,730	1.86	73	27	182	67	249	2.42	40	60	130	194	324
Fast-Food Restaurant with Drive Through Window (934)	6.844	KSF	467.48	3,199	44.61	51	49	156	149	305	33.03	52	48	118	108	226
Wine Tasting Room (970)	3.000	KSF	45.96	138	2.07	70	30	4	2	6	7.31	50	50	11	11	22
Brewery Tap Room (971)	10.575	KSF	61.69	652	0.68	88	12	6	1	7	9.83	59	41	61	43	104
Banquet Hall[1]	200	PPL	1.35	270	0.03	90	10	5	1	6	0.27	98	2	53	1	54
Total Driveway Trips				**8,881**				**392**	**236**	**628**				**421**	**419**	**840**

Note: 1 = Based on Non-ITE Rates
KSF = Thousand Square Feet
PPL = People

VMT Analysis

Regulatory Setting

Senate Bill (SB) 743 requires that relevant California Environmental Quality Act (CEQA) analysis of transportation impacts be conducted using a metric known as VMT instead of level of service (LOS). VMT measures how much actual auto travel (additional miles driven) a proposed project would create on California roads. If the project adds excessive car travel onto our roads, the project may cause a significant transportation impact.

The State CEQA Guidelines were amended to implement SB 743, by adding Section 15064.3. Among its provisions, Section 15064.3 confirms that, except with respect to transportation projects, a project's effect on automobile delay shall not constitute a significant environmental impact. Therefore, LOS measures of impacts on traffic facilities are no longer a relevant CEQA criteria for transportation impacts.

CEQA Guidelines Section 15064.3(b)(4) states that "[a] lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revision to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section."

On October 17, 2022, the City of Clovis adopted the *Transportation Impact Analysis Guidelines* for VMT pursuant to Senate Bill 743 which was effective on July 1, 2020. The City of Clovis *Transportation Impact Analysis Guidelines* document was prepared and adopted consistent with the requirements of CEQA Guidelines Sections 15064.3 and 15064.7. The December 2018 Technical Advisory on Evaluating Transportation Impacts in CEQA (TA) published by the Governor's Office of Planning and Research (OPR), was utilized as a reference and guidance document in the preparation of the Clovis VMT thresholds.

The City of Clovis *Transportation Impact Analysis Guidelines* adopted a screening standard and criteria that can be used to screen out qualified development projects that meet the adopted criteria from needing to prepare a detailed VMT Analysis. These criteria may be size, location, proximity to transit, of trip making potential. In general, development projects that are consistent with the City of Clovis' General Plan and Zoning that meet one or more of the following criteria can be screened out from a quantitative VMT analysis.

1. Project Located in a Transit Priority Area/High Quality Transit Corridor (within 0.5 miles of a transit stop).
2. Project is Local-serving Retail of less than 100,000 square feet.
3. Project is a Low Trip Generator (Less than 500 average daily trips)
4. Project is 100% Affordable Housing Units
5. Project is located in a Low VMT Zone

This screening tool is consistent with the OPR December 2018 Guidance referenced above. The screening tool includes an analysis of those portions of the City that satisfy the standard of reducing VMT by 13% from existing per capita and per employee VMT averages within the relevant region. The relevant region adopted by the City of Clovis *Transportation Impact Analysis Guidelines* is Fresno County. The City of Clovis *Transportation Impact Analysis Guidelines* Section 2.1.1.6. regarding project screening states that "… projects that are inconsistent with the RTP/SCS would not qualify for screening out of a detailed VMT analysis".

For projects that are not screened out, a quantitative analysis of VMT impacts must be prepared and compared against the adopted VMT thresholds of significance. The City of Clovis *Transportation Impact Analysis Guidelines* document includes thresholds of significance for development projects, transportation projects, and land use plans. These thresholds of significance were developed using the County of Fresno as the applicable region, and the required reduction of VMT (as adopted in the Clovis VMT Thresholds) corresponds to Fresno County's contribution to the statewide GHG emission reduction target. In order to reach the statewide GHG reduction target of 15%, Fresno County must reduce its GHG emissions by 13%. The method of reducing GHG by 13% is to reduce VMT by 13% as well.

VMT is simply the product of a number of trips and those trips' lengths. The first step in a VMT analysis is to establish the baseline average VMT, which requires the definition of a region. The City of Clovis *Transportation Impact Analysis Guidelines* provide that the Fresno County average VMT per Capita (appropriate for residential land uses) and Employee (appropriate for office/commercial non-retail land uses) are 16.1 and 25.6, respectively. The City's threshold targets a 13% reduction in VMT for residential and office/commercial non-retail land uses and a net zero (0) increase in regional VMT for commercial retail land uses.

The City's adopted thresholds for development projects correspond to the regional averages modeled by Fresno Council of Government's (COG's) Activity Based Model (ABM). For residential and office development projects, the adopted threshold of significance is a 13% reduction, which means that projects that generate VMT in excess of a 13% reduction from the existing regional VMT per capita or per employee would have a significant environmental impact. Projects that reduce VMT by 13% or more are less than significant. The adopted threshold for all "other" land use types that do not require a General Plan Amendment or Zone Change is no net increase in VMT per employee. The adopted threshold for retail projects is any net increase in Regional VMT compared to the existing Regional VMT. Quantitative assessments of the VMT generated by a development project are determined using the COG ABM, which is a tour-based model.

For mixed use projects, the City of Clovis *Transportation Impact Analysis Guidelines* state that the VMT can be estimated based on each component of the project, independently, after taking credit for internal trip capture. It also confirms that mixed use projects must use the Fresno COG's Activity Based Model. The VMT per capita (for the residential component) and the total VMT (for the retail component) is then compared against the relevant threshold.

The target VMT for residential and commercial non-retail land uses are (16.1 X (1-.13) = 14.0) 14.0 VMT per capita and (25.6 X (1-.13) = 22.3) 22.3 VMT per employee, respectively. The threshold for retail land uses is a net zero (0) increase in Regional VMT for retail land uses (City of Clovis, 2022). The target VMT for all "other" type of land uses that are consistent with the General Plan is dependent on the land use type, project description and setting. These will be determined on a case-by-case basis to either be more aligned with commercial non-retail or retail land uses. In either case, the target VMT will be based on that of the commercial non-retail or retail land uses.

Projects that are consistent with the General Plan and do not meet a VMT Screening Criteria would be required to identify feasible VMT improvement measures. If it cannot be demonstrated that improvement would reduce VMT of the proposed Project below the applicable threshold, then a significant and unavoidable impact would be reported. Section 4.2.2.3 of the City of Clovis *Transportation Impact Analysis Guidelines* states that significant and unavoidable VMT impacts associated with City of Clovis *General Plan* development have already been disclosed. Thus, the Project can tier off of the Clovis General Plan SEIR with a Mitigated Negative Declaration (MND) with VMT improvement.

VMT Screening

There are three land use categories identified in the Project. The auto dealership is designated as the "other" land use category, the general office buildings are designated as the office land use category and the brewery with ancillary buildings, general retail buildings and fast food restaurants with drive through windows are designated as the retail land use category. Within the City of Clovis *Transportation Impact Analysis Guidelines* there are five (5) screening criteria. These criteria are stated in the Regulatory Settings sections of this Report. According to Section 2.1.1.5 of the City of Clovis *Transportation Impact Analysis Guidelines*, "Office or the employment portions of other non-residential uses with total daily employee-based VMT per employee that is 13 percent less than the existing average baseline level in Fresno County. . . are shown in green in the maps provided. . ." (City of Clovis, 2022). The Project is located within a low VMT area in terms of VMT per employee. This screening map can be found in Exhibit B. As the "other" and office land use categories are employment driven land uses and are located in a low VMT zone, they are screened out from a detailed VMT analysis.

VMT Results

The Project's trip generation was provided to Fresno COG in order to conduct a Project-specific VMT analysis using the Fresno COG ABM. As the office and "other" land use categories were screened out, this Report is now focused on the retail land use category. This land use category includes Strip Retail Plaza (822), Fast-Food Restaurant with Drive-Through (934), Wine Tasting Room (970), Brewery Tap Room (971) and Banquet Hall. Based on Fresno COG results, the regional VMT without the Project is 23,414,391 and the VMT with the Project is 23,416,418. This exceeds the VMT threshold for retail land use categories of no net increase to regional VMT by 2,027. However, it should be noted that the regional VMT with the Project does not account for VMT reductions associated with a Project's pass-by rate trip reductions. As the retail portion of the Project generates 4,988 daily trips and increases the regional VMT by 2,027, each daily trip would need to be reduced by approximately 0.41 miles (2,027 total miles / 4,988 daily trips = 0.41 miles per trips) in order to reduce the Projects Regional VMT to less than significant. Fresno COG

reported an average retail internal trip length of 5.28 miles. The internal trip length is the length in miles that the Project generates solely within the regional boundary, in this case the County of Fresno. Appendix A presents the Project VMT output from the Fresno COG ABM.

It is anticipated that this Project, specifically the Strip Retail Plaza and Fast-Food Restaurant with Drive-Through portions, will benefit from pass-by trip reductions. Pass-by trip reductions are a representation of vehicles already on the road that the Project is anticipated to attract. Considering that pass-by trips do not add any VMT to the roadway network as a result of the Project, pass-by trips can be removed from the VMT generated by the Project. Per Caltrans' *Guide for the Preparation of Traffic Impact Studies*, pass-by rates are to be limited to 15 percent of the trip generation unless substantial evidence can demonstrate otherwise. While it is anticipated that the Project will attract a larger rate of pass-by trips, this VMT analysis has been limited to 5 percent in order to provide a conservative result. Furthermore, since ITE does not provide data for pass-by trip reduction characteristics related to Wine Tasting Room (970), Brewery Tap Room (971) and Banquet Hall, pass-by trips were not applied to these land uses. Therefore, the Project's total VMT is reduced by 5 percent of the traffic generated by the Strip Retail Plaza and Fast-Food Restaurant with Drive-Through portions. The Strip Retail Plaza and Fast-Food Restaurant with Drive-Through portions generate approximately 3,928 daily trips. This equates to 196 daily pass-by trips (3,928 daily trips * 0.05 = 196) when rounded down or 1,034 miles (196 pass-by trips * 5.28 miles = 1,1034 miles). As a result, the Regional VMT with Project is expected to be reduced to 23,415,384 after accounting for the reduction from pass-by trips. Table II provides the regional VMT once pass-by rate reductions are accounted for but prior to accounting for the Project's VMT improvement measures.

Table II: VMT Results with Pass-by Rate Reduction Prior to Improvement

Project Component	*Regional VMT without Project*[1]	*Regional VMT with Project*[1]	*Pass-By Reductions*	*Regional VMT with Project After Pass-By Reductions*	*Above VMT Threshold?*
Retail	23,414,391	23,416,418	1,034	23,415,384	Yes

Note: 1 = VMT Results from Fresno COG ABM Output.

VMT Improvement

The VMT improvement measures considered for this Project include those appropriate for the respective land use as noted in the City of Clovis *Transportation Impact Analysis Guidelines*. Exhibit C presents a summary of the VMT reduction associated with each improvement measure utilized in this Report. The selected VMT reduction rates appropriate for the Project were based on the *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* published by the California Air Pollution Control Officers Association (CAPCOA). The improvement measure found feasible is Provide Electric Vehicle Charging Infrastructure (T-14). This improvement was calculated using eight (8) electric vehicle (EV) chargers. There are more EV chargers shown on the site plan, but eight (8) of the EV chargers serve the retail components of the Project. Calculations for this measure can be found in Exhibit C. As can be seen in Table III, the improvement measure results in a reduction of 6.2% of Project related VMT. After the application of pass-by reductions and the improvement measure, the resulting regional VMT with Project is 23,413,815. Therefore, the regional VMT with Project is less than the regional VMT without project. In conclusion, the Project is projected to have a less than significant VMT impact when implementing eight (8) EV chargers that serve the retail components.

Table III: VMT Improvement

Project Component	*Regional VMT without Project*[1]	*Regional VMT with Project After Pass-By Reductions*	*Improvement Reductions*	*Regional VMT with Project After Improvements and Pass-By Reductions*	*Above VMT Threshold?*
Retail	23,414,391	23,415,384	1,569	23,413,815	No

Note: 1 = VMT Results from Fresno COG ABM Output.

Conclusion

Conclusions regarding the VMT Analysis of the proposed Project are provided below.

- The "other" and office land use categories are employment driven land uses and are located in a low VMT zone, and thus are screened out from a detailed VMT analysis as its VMT impacts have been previously reported to be less than significant by the City's General Plan and VMT Guidelines.
- Once pass-by trip reductions and VMT improvements are accounted for the Project's retail components, the regional VMT for the Project is determined to be less than significant.
  - Per the Fresno COG VMT Analysis output, the regional VMT without the Project is 23,414,391 and the regional VMT with the Project is 23,416,418.
  - After applying pass-by reductions, the regional VMT with the Project is 23,415,384.
  - The improvement measure found feasible is Provide Electric Vehicle Charging Infrastructure (T-14).
  - After the implementation of feasible improvements measure, the regional VMT with the Project is 23,413,815.
  - The City of Clovis threshold for retail projects is a no net increase to regional VMT.
- Therefore, once improvements are taken into account, the Project as a whole is projected to result in a less than significant VMT impact.

Study Participants

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Matthew Arndt, EIT	Engineer I/II
Christian Sanchez, EIT	Engineer I/II
Adrian Benavides	Engineering Aide
Carlos Topete	Engineering Aide
Dennis Wynn	Sr. Engineering Technician

Persons Consulted:

Jeff Milgrom	Legacy Realty & Development
Bryan Pok	Centerline Design, LLC
Sean Smith, PE	City of Clovis
Christopher Kelly	City of Clovis
Hector Luna	County of Fresno
David Padilla	Caltrans, D6
Christopher Xiong	Caltrans, D6
Santosh Bhattarai	Fresno COG

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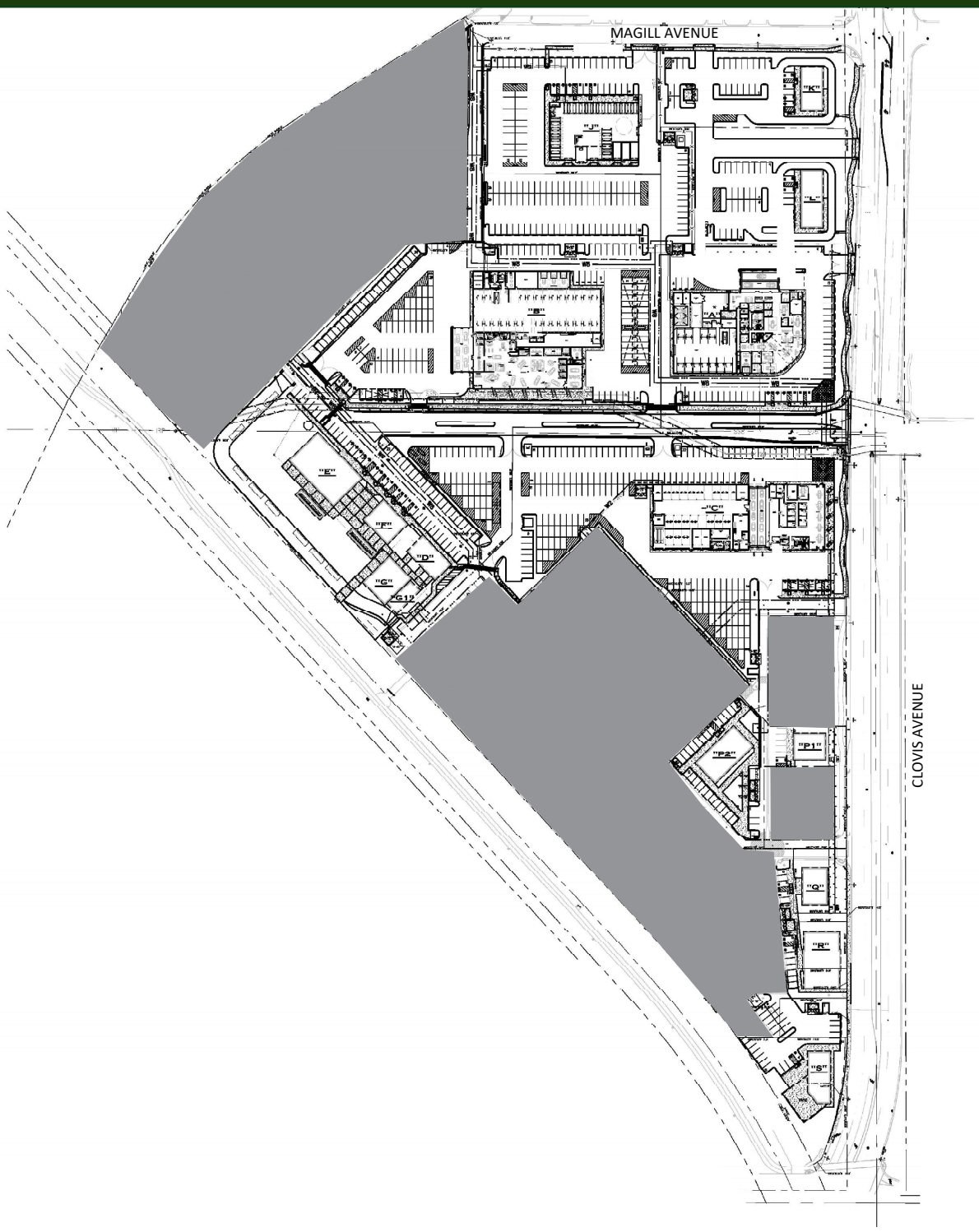
Golden Triangle - City of Clovis
Project Site Plan

Exhibit A



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LEGEND

- = PROJECT DRIVEWAY
- XX = AM PROJECT ONLY TRIPS
- (XX) = PM PROJECT ONLY TRIPS
- = NOT APART OF PROJECT

N

Not To Scale

Exhibit B: Fresno COG ABM Output

Fresno Council of Governments

2035 Tulare St., Ste. 201 tel 559-233-4148
Fresno, California 93721 fax 559-233-9645

www.fresnocog.org

Golden Triangle Project located Southwest Corner of Clovis Avenue and Magill Avenue in the City of Clovis (JLB Project 006-047)

VMT Analysis for the Mixed-Use Project:

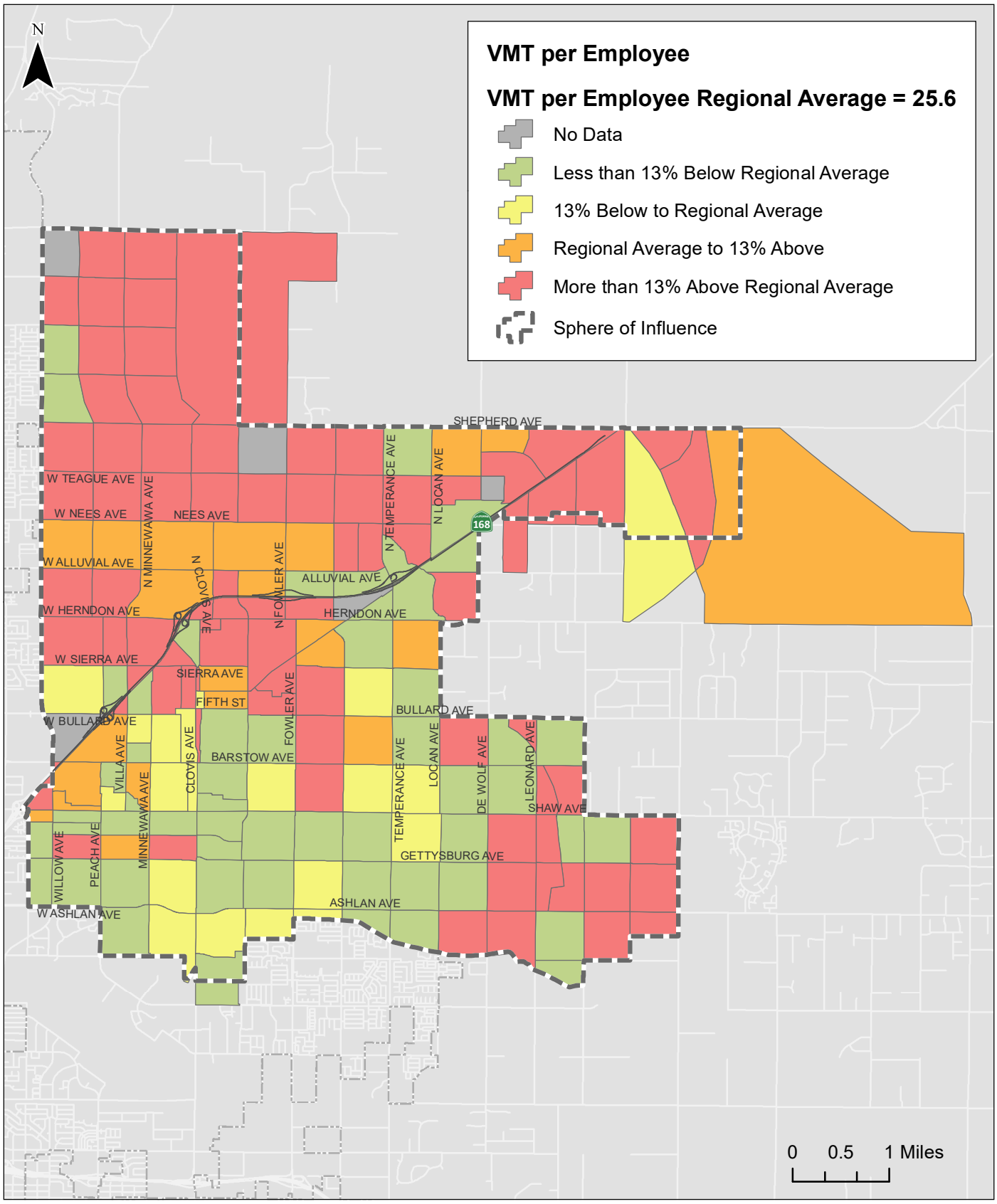
Retail/TAZ A

Scenario	Total VMT	Net Difference	Significant
Without Project	23,414,391		
With Project	23,416,418	2,027	Yes

Other and Office

TAZ	Total VMT	Employee	VMT/Emp	Type
2858/B	3338.04	118	28.3	Other
2859/C	1323.90	49	27.0	Office

City of Clovis
City of Coalinga
City of Firebaugh
City of Fowler
City of Fresno
City of Huron
City of Kerman
City of Kingsburg
City of Mendota
City of Orange Cove
City of Parlier
City of Reedley
City of San Joaquin
City of Sanger
City of Selma
County of Fresno



Existing VMT Per Employee (2019)
City of Clovis VMT Implementation

Figure
B2

H:\24\24913 - City of Clovis VMT Implentation\gis\Clovis_VMTperemp(2019)_nolabel.mxd - gcarsky - 9:22 AM 2/4/2021

KITTELSON & ASSOCIATES

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Data Source: City of Clovis

Exhibit C: VMT Improvements

Golden Triangle VMT Analysis

		TAZ:	**1404**
		Land Use:	Residential
		Regional VMT without Project	23,414,391
		Regional VMT with Project	23,416,418
		Total Internal Retail Miles	26,337
		Pass-By Reductions	1,034
		Regional VMT with Project after Pass-By Reductions	23,415,384
		Total Internal Retail Miles after Pass-By Reductions	25,303
		Target VMT Satisfied Prior to Improvement?	**FALSE**
Measure	VMT Improvement	Maximum Reduction	VMT Reduction (%)
Project/Site Scale			
Land Use			
T-1	Increase Residential Density	30.0%	0.0%
T-2	Increase Job Density	30.0%	0.0%
T-3	Provide Transit-Oriented Development	31.0%	0.0%
T-4	Integrate Affordable and Below Market Rate Housing	28.6%	0.0%
	Combined Land Use	65.0%	0.0%
Trip Reduction Programs			
T-5	Implement CTR Program (Voluntary)	4.0%	0.0%
T-6	Implement CTR Program (Mandatory and Monitoring)	26.0%	0.0%
T-7	Implement CTR Marketing	4.0%	0.0%
T-8	Provide Ridesharing Program	8.0%	0.0%
T-9	Implement Subsidized or Discounted Transit Program	5.5%	0.0%
T-10	Provide End-of-Trip Bicycle Facilities	4.4%	0.0%
T-11	Provide Employer-Sponsored Vanpool	20.4%	0.0%
T-12	Price Workplace Parking	20.0%	0.0%
T-13	Implement Employee Parking Cash-Out	12.0%	0.0%
	Combined Trip Reduction Programs	45.0%	0.0%
Parking or Road Pricing/Management			
T-14	Provide Electric Vehicle Charging Infrastructure	11.9%	6.2%
T-15	Limit Residential Parking Supply	13.7%	0.0%
T-16	Unbundle Residential Parking Costs from Property Costs	15.7%	0.0%
	Combined Parking or Road Pricing/Management	35.0%	6.2%
	Combined Project/Site Scale Improvements	***70.0%***	***6.2%***
VMT Improvement Calculations			
		TAZ:	**1404**
		Land Use:	Residential
		Regional VMT without Project	23,414,391
		Regional VMT with Project	23,416,418
		Total Internal Retail Miles	26,337
		Pass-By Reductions	1,034
		Regional VMT with Project after Pass-By Reductions	23,415,384
		Total Internal Retail Miles after Pass-By Reductions	25,303
		Improvement Reduction	1,569
		Regional VMT with Project after Pass-By Reductions and Improvement	23,413,815
		Target VMT Satisfied?	**TRUE**

T-14. Provide Electric Vehicle Charging Infrastructure

GHG Mitigation Potential

Up to 11.9% of GHG emissions from vehicles accessing the commercial or multifamily housing building

Co-Benefits (icon key on pg. 34)

Climate Resilience

Providing electric vehicle charging infrastructure increases fuel redundancy for electric vehicles even if an extreme weather event disrupts other fuel sources. Electric vehicles could also provide benefits to buildings and the grid, such as emergency backup, energy reserves, and demand response.

Health and Equity Considerations

Differential costs of PHEVs compared to conventional vehicles are decreasing over time, but at present are more expensive, which means this measure could disproportionately benefit those of greater economic means. As costs come into parity over time, this will be less of an issue. Employer, electricity provider, and state incentives for PHEV purchase could help address near-term disparities.

Measure Description

Install onsite electric vehicle chargers in an amount beyond what is required by the 2019 California Green Building Standards (CALGreen) at buildings with designated parking areas (e.g., commercial, educational, retail, multifamily). This will enable drivers of PHEVs to drive a larger share of miles in electric mode (eVMT), as opposed to gasoline-powered mode, thereby displacing GHG emissions from gasoline consumption with a lesser amount of indirect emissions from electricity. Most PHEVs owners charge their vehicles at home overnight. When making trips during the day, the vehicle will switch to gasoline mode if/when it reaches its maximum all-electric range.

Subsector

Parking or Road Pricing/Management

Locational Context

Urban, suburban, rural

Scale of Application

Project/Site

Implementation Requirements

Parking at the chargers must be limited to electric vehicles.

Cost Considerations

The primary costs associated with electric vehicle charging infrastructure include the capital costs of purchasing and installing charging stations, electricity costs from use of stations, and maintenance costs of keeping the charging stations in working order. Costs initially fall to the station owners, either municipalities or private owners, but can be passed along to station users with usage fees. Depending on station placement and charging times required for PHEVs, businesses near charging stations can derive benefits from patronage of station users.

Expanded Mitigation Options

In addition to increasing the percentage of electric miles for PHEVs, the increased availability of chargers from implementation of this measure could mitigate consumer "range anxiety" concerns and increase the adoption and use of battery electric vehicles (BEVs), but this potential effect is not included in the calculations as a conservative assumption. Expanded mitigation could include quantification of the effect of this measure on BEV use.

GHG Reduction Formula

$$A = \frac{B \times D \times (F - E) \times (G - (H \times I \times K \times L))}{-C \times J} = \frac{8*2*(80-46)*(205.1-(0.327*454*0.001*206))}{4{,}988*307.5} = 6.2\%$$

GHG Calculation Variables

ID	Variable	Value	Unit	Source
Output				
A	Percent reduction in GHG emissions from vehicles accessing the office building or housing	0–11.9	%	calculated
User Inputs				
B	Number of chargers installed at site	[ ]	integer	user input
C	Total vehicles accessing the site per day	[ ]	integer	user input
Constants, Assumptions, and Available Defaults				
D	Average number of PHEVs served per day per charger installed	2	integer	CARB 2019
E	Percent of PHEV miles in electric mode without measure	46	%	CARB 2020a
F	Percent of PHEV miles in electric mode with measure	80	%	CARB 2017
G	Average emission factor of PHEV in gasoline mode	205.1	g CO_2e per mile	CARB 2020a; U.S. DOE 2021
H	Energy efficiency of PHEV in electric mode	0.327	kilowatt hours (kWh) per mile	CARB 2020b; U.S. DOE 2021
I	Carbon intensity of local electricity provider	Tables E-4.3 and E-4.4	lb CO_2e per megawatt hour (MWh)	CA Utilities 2021
J	Average emission factor of non-electric vehicles accessing the site	307.5	g CO_2e per mile	CARB 2020a
K	conversion from lb to g	454	g per lb	conversion
L	Conversion from kWh to MWh	0.001	MWh per kWh	conversion

Further explanation of key variables:

- (D) – The average number of PHEVs served per day per charger installed is 2 vehicles (CARB 2019). If the user can provide a project-specific value, they should replace the default in the GHG reduction formula.
- (E) - Based on the EMFAC2017 model (v1.0.3), 46 percent of miles traveled by PHEVs in California are eVMT, and 54 percent are in gasoline mode (CARB 2020a).

- (F) – A review of EV user surveys and analytics included in the CARB's *Advanced Clean Cars Mid-Term Report* suggest that PHEV owners can reach 80 percent eVMT with access to adequate supportive charging infrastructure (CARB 2017).
- (G) – As described for (J), the average GHG emission factor for gasoline vehicles is 307.5 grams of CO_2e per mile.
- The fuel efficiency of a PHEV in gasoline mode is calculated as 66.7 percent of the fuel consumption rate of a gasoline vehicle, based on the assumption that a gasoline hybrid vehicle has 50 percent higher fuel economy (miles per gal [mpg]) than a comparable gasoline vehicle, based on a comparison of the gasoline and hybrid Toyota Camry and Corolla models (U.S. DOE 2021). This percentage is applied to the average GHG emission factor for gasoline vehicles to determine the average emission factor for PHEVs in gasoline mode as (66.7%×307.5 g CO_2e per mile). If the user can provide a project-specific value by running EMFAC based on the future year of a project, they should replace the default in the GHG reduction formula.
- (H) – Scaled from a light-duty automobile gasoline equivalent fuel economy 30.3 mpg (CARB 2020a), an energy efficiency ratio (EER) of 2.5 (CARB 2020b), and an assumption of 33.7 kWh electricity per gallon of gasoline (U.S. DOE 2021).
- (I) – GHG intensity factors for major California electricity providers are provided in Tables E-4.3 and E-4.4 in Appendix C. If the project study area is not serviced by a listed electricity provider, or the user is able to provide a project-specific value (i.e., for the future year not referenced in Appendix C), the user should replace the default in the GHG calculation formula. If the electricity provider is not known, the user may elect to use the statewide grid average carbon intensity.
- (J) – The average GHG emission factor for non-electric vehicles accessing the site was calculated in terms of CO_2e per mile using EMFAC2017 (v1.0.3). The model was run for a 2020 statewide average of LDA, LDT1, and LDT2 vehicles using diesel and gasoline fuel. The running emission factors for CO_2, CH_4, and N_2O (CARB 2020a) were multiplied by the corresponding 100-year GWP values from the IPCC's Fourth Assessment Report (IPCC 2007). If the user can provide a project-specific value (i.e., for a future year and project location), the user should run EMFAC to replace the default in the GHG reduction formula.

GHG Calculation Caps or Maximums

Measure Maximum

(A_{max}) The percent reduction in GHG emissions (A) is capped at 11.9 percent, which is based on the following assumptions used to generate a maximum scenario:

- (B) – number of chargers installed = 20. CALGreen provides a non-residential voluntary Tier 2 measure that requires projects with 201 or more parking spaces to allocate 10 percent of total parking spaces for "EV Capable" parking spaces (or 20 parking spaces) (CBSC 2019). Note that EV Capable parking spaces do not actually have EV chargers installed, though they do have electrical panel capacity, a dedicated branch circuit, and a raceway to the EV parking spot to support future installation of charging stations. Therefore, using the number of EV Capable parking spaces as a proxy for EV chargers as a high-end estimate is conservative.

- (C) – total vehicles accessing the site = 200. Per the CALGreen voluntary measure, the number of total parking spaces that correspond with 20 "EV Capable" parking spaces is 201.
- (D) – PHEVs served per day per charger installed = 7. This value is the max (D_{max}). This assumes that all PHEV drivers would coordinate sharing of the limited number of chargers at the site. Value is based on data from the National Renewable Energy Laboratory (CARB 2019).
- (I) – carbon intensity of local electricity provider = 0 lb CO_2e per MWh. This assumes that the local electricity provider is powered 100 percent by renewables and thus has a carbon intensity of zero.

Subsector Maximum

($\sum A_{max_{T\text{-}14 \text{ through } T\text{-}16}} \leq 35\%$) This measure is in the Parking or Road Pricing/Management subsector. This subcategory includes Measures T-14 through T-16. The VMT reduction from the combined implementation of all measures within this subsector is capped at 35 percent.

Example GHG Reduction Quantification

The user will install electric vehicle chargers at their proposed office or multifamily housing development, which will enable employees or residents with PHEVs to drive a larger share of miles in electric mode, as opposed to gasoline-powered mode, thereby displacing GHG emissions from gasoline consumption with a lesser amount of indirect emissions from indirect electricity. In this example, 20 chargers (B) will be installed at a workplace with 200 daily employee vehicles accessing the site (C). The electricity provider for the project area is the Sacramento Municipal Utility District (SMUD) and the analysis year is 2022. The carbon intensity of electricity is therefore 344 lb CO_2e per MWh (I). The GHG impact is calculated as a 3.4 percent reduction from the total emissions from vehicles accessing the site.

$$A = \frac{20 \times 2\frac{\text{PHEVs}}{\text{charger}\cdot\text{day}} \times (80\% - 46\%) \times (205.1\ \frac{\text{g } CO_2e}{\text{miles}} - (0.327\frac{\text{kWh}}{\text{mile}} \times 344\ \frac{\text{lb } CO_2e}{\text{MWh}} \times 454\frac{\text{g}}{\text{lb}} \times 0.001\frac{\text{MWh}}{\text{kWh}}))}{200 \text{ vehicles} \times 307.5\ \frac{\text{g } CO_2e}{\text{miles}}} = 3.4\%$$

Quantified Co-Benefits

While the measure will achieve fuel savings, it will also increase electricity consumption. This section defines the methods for quantifying Improved Local Air Quality and fuel savings, as well as increased electricity consumption.

Improved Local Air Quality

Local criteria pollutants will be reduced by the reduction in fossil fuel combustion. The percent reduction in criteria pollutants can be calculated using the GHG reduction formula. Electricity supplied by statewide fossil-fueled or bioenergy power plants will generate criteria pollutants. However, because these power plants are located throughout the state, electricity consumption from vehicles charging will not generate localized criteria pollutant emissions. Consequently, for the quantification

of criteria pollutant emission reductions, either the electricity portion of the equation can be removed, or the electricity intensity (I) can be set to zero.

Fuel Savings (Increased Electricity)

The percent reduction in vehicle fuel consumption would be the same as the percent reduction in criteria pollutant emissions. The percent increase in electricity use (M) from this measure can be calculated as follows.

Electricity Use Increase Formula

$$M = \frac{B \times D \times (F - E) \times J \times N \times O}{-C \times P}$$

Electricity Use Increase Calculation Variables

ID	Variable	Value	Unit	Source
Output				
M	Increase in electricity from PHEVs	[ ]	%	calculated
User Inputs				
N	Existing electricity consumption of project/site	[ ]	kWh per year	user input
O	Days per year with vehicles accessing the site	260–365	days per year	user input
P	Average annual VMT of vehicles accessing the site	[ ]	miles per day per vehicle	user input
Constants, Assumptions, and Available Defaults				
	None			

Further explanation of key variables:

- (N) – The user should take care to properly quantify building electricity using accepted methodologies (such as CalEEMod).
- (O) – If the proposed development is a workplace in which employees access the site an average of 5 days per week, the user should input 260 workdays. If the development is multifamily dwelling, the user should input 365 days.
- Please refer to the GHG Calculation Variables table above for definitions of variables that have been previously defined.

Sources

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