Final Mitigated Negative Declaration (MND)

Project Title:
Tulare County Central Road Yard Expansion Project (PSP 13-057)

Lead Agency:
Tulare County Resource Management Agency
5961 S Mooney Blvd, Visalia, CA 93277

Date: October 17, 2013
Contact: Hector Guerra, (559)624-7121

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TC Road Yard Initial Study Outline for IS/MND

I. Background

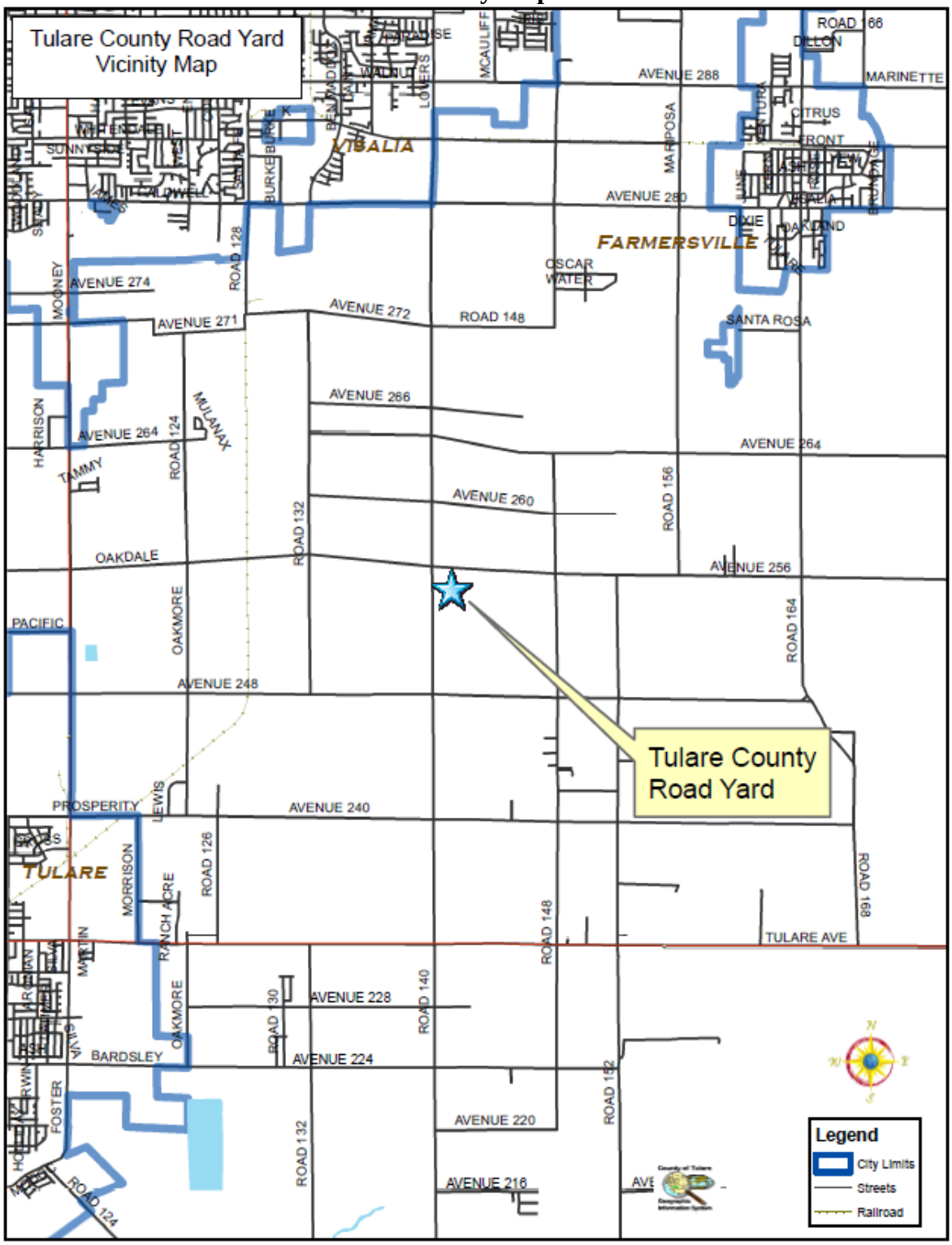
1. Project Title: Tulare County Central Road Yard Expansion Project (PSP 13-057)

2. Lead Agency Name and Address: Tulare County Resource Management Agency
5961 S Mooney Blvd, Visalia, CA 93277

3. Contact Person and Phone Number: Hector Guerra, (559)624-7121

4. Project Location: SE corner of Road 140/Avenue 256 intersection, approximately 3 miles NE of the City of Tulare, in Tulare County, CA (See Figure 1: Vicinity Map).

Figure 1
Vicinity Map



5. Surrounding Land Uses and Project Setting:

The entire Project site was farmed up to 10 years ago. The existing Road Yard, also located on the same 39.5 acre parcel, is located to the north of the southeast quadrant of the Road 140/ Avenue 256 intersection. The current Road Yard includes the Traffic Control Division, Soils Lab, Mechanics Shop with offices, the County Motor Pool, Agricultural Commissioner's Office and Warehouse, Animal Control, gasoline and CNG fueling stations, vehicle washing bay, parking areas, a domestic water well, and on-site septic sewer and leach field system. The entire site is paved with asphalt concrete. The surrounding properties are agricultural uses in every direction. (See Figure 3). There are three rural residences within the vicinity of the project site, with one rural residence to the north, east, and south.

Existing Conditions

The existing site is located on the southeast quadrant of the Road 140/Avenue 256 intersection. The current Road Yard includes the Traffic Control Division, Soils Lab, Mechanics Shop with offices, the County Motor Pool, Agricultural Commissioner's Office and Warehouse, Animal Control, gasoline and CNG fueling stations, vehicle washing bay, parking areas, a domestic water well, and septic sewer system. The currently utilized area of the site is entirely paved with asphalt concrete. The remaining 19.5 acres are currently vacant and undeveloped. There is a storm water swale located between the existing Road Yard and the Project site and an irrigation channel immediately south of the south property line of the Project site. (See Figure 3. Site Aerial Map.)

Present Use of the Project Site

The entire site is zoned AE-40, or *Exclusive Agriculture with Minimum 40 Acre Parcels*. The northern +/-20 acres are being utilized by the Central Road Yard. The south 19.5 acres is currently undeveloped and the site is not currently farmed ground and according to the Tulare County Road Yards Division has not been farmed for 10 years. There is a drainage swale between the north 20 acres and the south 19.5 acres. This drainage swale will be eliminated and all storm water runoff will be collected in a storm drain system and discharged to the proposed Storm Water Retention Basin on the 19.5 acres site. There is an irrigation channel just south of the south property line, which may be modified as a result of this Project. (See Figure 3. Site Aerial Map)

6. General Plan Designation and Consistency Determination:

Rural Valley Lands Plan. The Project and lies within the Rural Valley Lands Plan and the land use designation is "Valley Agriculture." The following General Plan Policies are Relevant to the project: (1) AG-1.14 Right-to-Farm Noticing; (2) LU-1.6 Permitting Procedures and Regulations; (3) LU-1.10 Roadway Access; (4) LU-4.6 Commercial Storage Facilities; (5) SL-1.2 Working Landscapes; (6) ERM-1.1 Protection of Rare and Endangered Species; (7) ERM-1.15 Minimize Lighting Impacts; (8) ERM-6.1 Evaluation of Cultural and Archaeological Resources; (9) AQ-1.3 Cumulative Air Quality Impacts; (10) AQ-1.5 California Environmental Quality Act (CEQA) Compliance; (11) AQ-1.10 Alternative Fuel Vehicle Infrastructure; (12)

AQ-3.4 Landscape; (13) AQ-3.6 Mixed Land Uses; (14) AQ-4.2 Dust Suppression Measures; (15) HS-1.4 Building and Codes; (16) HS-1.9 Emergency Access; (17) HS-3.1 Airport Land Use Compatibility Plan; (18) HS-4.1 Hazardous Materials; (19) HS-4.4 Contamination Prevention; (20) HS-8.6 Noise Level Criteria; (21) HS-8.11 Peak Noise Generators; (22) HS-8.18 Construction Noise; (23) WR-2.7 Industrial and Agricultural Sources; (24) WR-3.5 Use of Native and Drought Tolerant Landscaping; (25) TC-1.15 Traffic Impact Study; (26) PFS-1.1 Existing Development; (27) PFS-4.4 Stormwater Retention Facilities; (28) PFS-7.1 Fire Protection; (29) PFS-7.6 Provision of Station Facilities and Equipment.

7. Zoning:

AE-40 (Exclusive Agricultural Zone 40 Acre Minimum). The current zoning is for Exclusive Agricultural Zone - Minimum 40 Acres. The AE-40 Zone is an exclusive zone for intensive and extensive agricultural uses and for those uses, which are a necessary and integral part of intensive and extensive agricultural operations. See Tulare County Zoning Code Section 9.7, Page 1. The surrounding properties are zoned AE-20 and contain agriculture and scattered rural residences. Section 16 of Ordinance No. 352, as amended, the Zoning Ordinance allows Fire Stations and Public Works Maintenance Facilities in the AE-40 Zone, subject to approval of a special use permit. Special Use Permit No. PSP 13-057 is an amendment to Special Use Permit No. PSP 75-017, which permits the expansion to the existing Tulare County Road Yard.

8. Description of Project:

The proposed Project involves an expansion of the existing Tulare County Central Road Yard (Road Yard or Yard) on 19.5 acres of a 39.5 acre parcel (APN 152-010-007), owned by the County of Tulare. The proposed Project will expand Road Yard facilities into an additional 19.5 acres onto land that is currently vacant and undeveloped. The proposed expansion will include a new Transit Operations Facility, a Fire Administration and Emergency Operations Center, a fast fill Compressed Natural Gas (CNG) fueling facility, Road Maintenance equipment parking area, Sheriff's Office evidence storage structures, a storm water retention basin, a septic leach field, and an internal road system. (See Figure 2: Master Site Plan). The proposed Project involves an expansion of the existing Tulare County Central Road Yard on 19.5 acres of a 39.5 acre parcel (APN 152-010-007), owned by the County of Tulare.

Proposed Improvements

The County Road Maintenance Division will use approximately two (2) acres for road maintenance equipment parking; approximately 0.8 acres will be fenced for Sheriff's Office evidence storage; 2.2 acres will be used as a storm water retention basin; approximately 0.7 acres will be used as a septic leach field; approximately 6.4 acres will be used for the new Transit Operations Facility; 6.7 acres will be used for Fire Administration and Emergency Operations Center; and the remaining 0.7 acres will be an internal road system**.** (See Figure 2).

The Transit Operations Center will house a new CNG fueling facility with four fast-fill pumps and six slow-fill pumps along with appurtenant facilities; 22 covered bus parking stalls; a

dispatch and operations center; a bus wash facility; a four bay mechanics shop; 42 employee parking stalls; seven public parking stalls; and security fencing and gates.

The portion of the site that will be occupied by the Tulare County Fire Department will house Fire Station #1; a Fire Administration Building and Emergency Operations Center; a radio tower, a 911 Call Center; Fire Warehouse with a loading dock; a Fire Training Facility; 10 handicapped Parking stalls; and 137 public/employee parking stalls.

The fast-fill CNG fueling facility, the Transit Operations Center, Fire Station #1; and the Fire Administration/Emergency Operations Center will be accessible to the public. The remainder of the site will be fenced with security gates to restrict public access. (See Table 1: Project Program and Figure 2: Master Site Plan).

Table 1
Project Program

Building Designation	***Area***	***C.P.C. Design Fixture Units***
Soils Lob	4,720	27
Old Sign Shop	15,250	24
Shop Office	4,800	24
Shop 1	24,000	10
Shop I Future Exponsion	3,200	0
Shop 2	2,400	0
Motor Pool	10,200	34
Animol Control	8,000	Unknown
Ag Commissioner	3,800	27
Ag Warehouse	4,000	10
Building Designation	***Area***	***C.P.C. Design Fixture Units***
Future Sign Shop	5,800	28
Future Transit Center	7,700	58
Future Fire Station I	7,100	64
Future Fire Administration/EOC	2,300	53
Future 911 Dispatch	3,600	33
Future Other Development	15,000	110

Figure 2
Master Site Plan

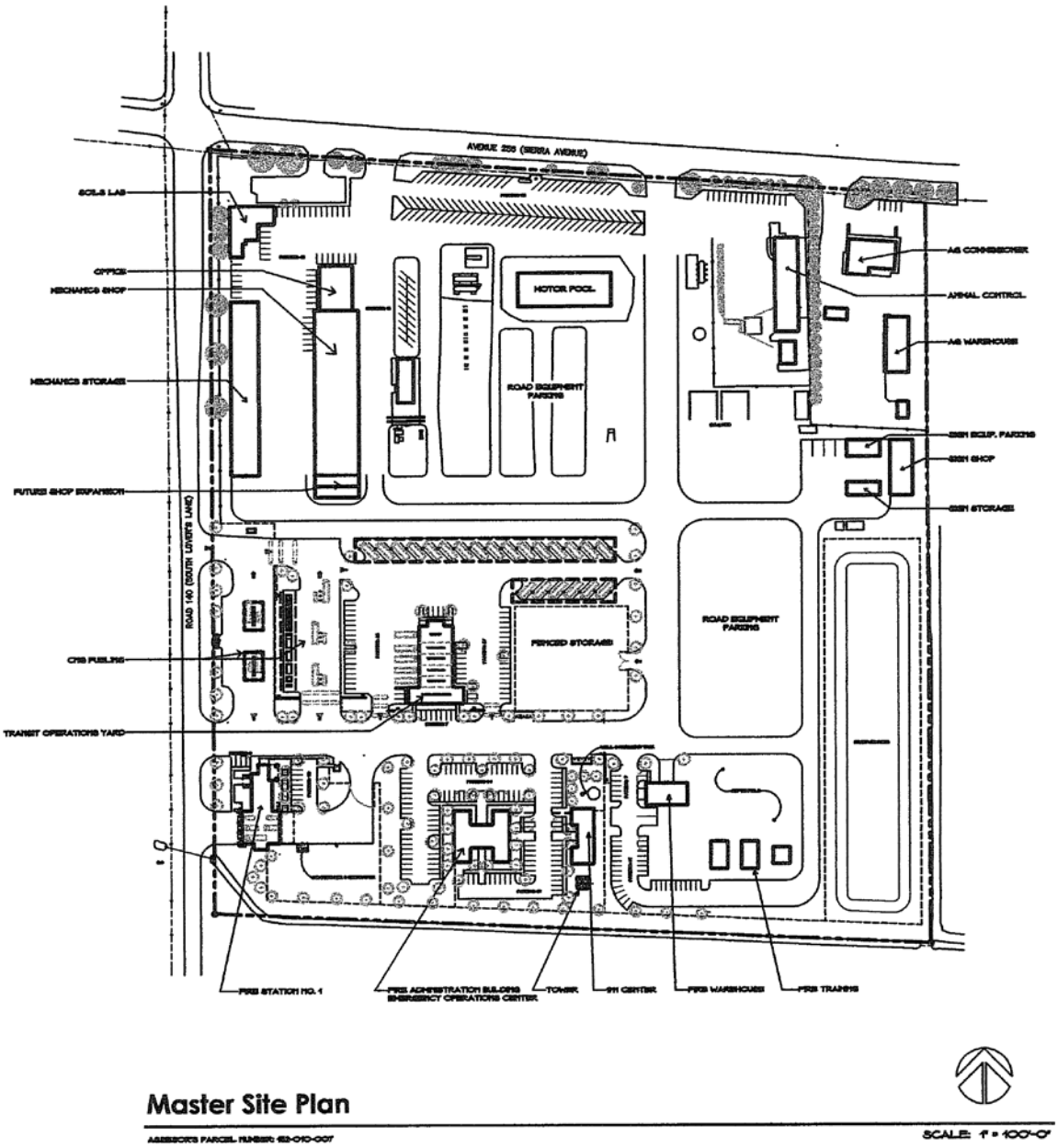
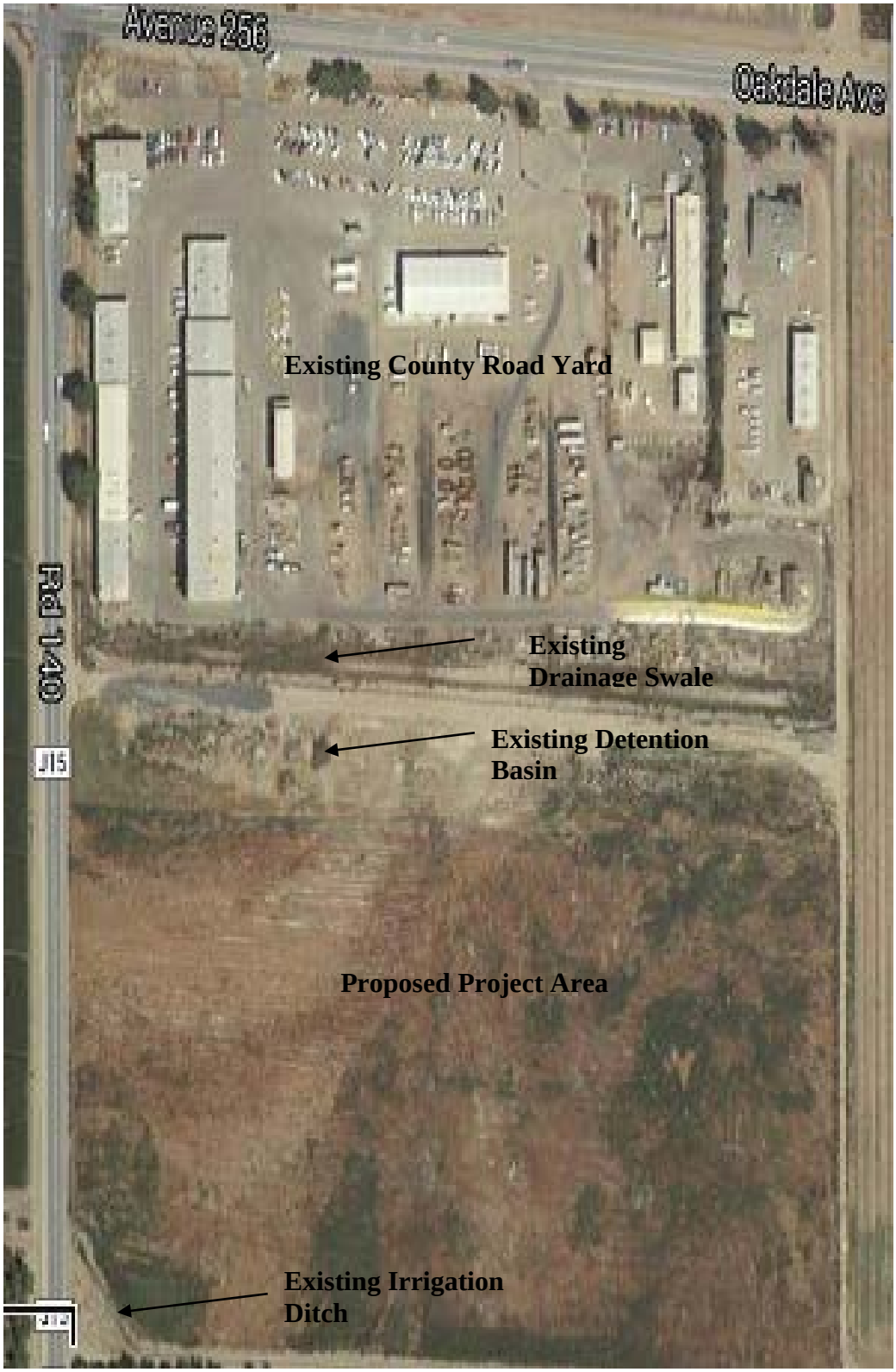


Figure 3
Master Site Plan



7. Key Project Objectives:

The proposed improvements will benefit the County's Road Maintenance Division, Tulare County Area Transit Division, Tulare County Fire, and the Tulare County Sheriff's Office

- Accommodate expanding Transit Service in the County;
- Improve fire response time and provide for fire training;
- Establish an Incident Command Center for major countywide emergency situations;
- Provide a CNG Fueling station;
- Provide a Maintenance Center for Transit;
- Increase available parking and storage areas for Road Maintenance equipment; and
- Expand secure storage areas for Sheriff's Office evidence materials.

8. Other Permits and Public Agency Approvals Required:

1) Fire District
2) Tulare County Building Department
3) Tulare County Planning Department
4) Environmental Health and Human Services Agency
5) Tulare County Area Transit
6) San Joaquin Valley Air Pollution Control District
7) Irrigation District
8) Regional Water Quality Control Board

II. Environmental Factors Potentially Affected:

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

III. 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 or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

☐ I find the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

IV. Evaluation of Environmental Impacts:

1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources cited in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved. A “No Impact” answer may also be explained where it is based on project-specific factors as well as general standards.

2) All answers take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once it is determined that a particular physical impact may occur, then the checklist will indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. A “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impacts” an EIR is required.

4) “Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an impact from “Potentially Significant” to a “Less Than Significant.” The lead agency must describe the mitigation measures, and briefly explain how the mitigation measure will reduce the impact to a less than significant level.

5) The EIR may rely on earlier analyses where, pursuant to the CEQA guidelines, an impact has been adequately analyzed in an earlier EIR or negative declaration. Section 15063I(3)(D). The Guidelines specify how the earlier analysis should be used.

6) Often, the checklist or EIR will rely on existing adopted documents such as general plans, zoning ordinances or development codes to reduce or eliminate impacts when appropriate reference to a previously prepared or outside document will identify the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source will be attached, and other sources used or individuals contacted should be cited in the discussion.

Signature of Lead Agency Representative: _____ **Date:** _____
Hector Guerra, Chief Environmental Officer

V. Environmental Checklist:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
2. AESTHETICS Will the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state or county designated scenic highway or county designated scenic road?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which will adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Analysis:

The Project site is on County property that is vacant and devoid of any naturally occurring vegetation. There is one debris pile on site and the remainder is currently unfarmed vacant property. Therefore, the site has no naturally occurring or man-made aesthetic value.

The site is adjacent to the existing County Road Yard to the north, with orchards to the south and west. There are other row crops further to the north and east, and individual rural residences to the south, north, and west of the site. Hence, the existing surrounding land uses are all agricultural in nature. The Project, based on the Master Site Plan, will have a **Less Than Significant Impact** to the overall aesthetics of the area as it is an expansion of the existing County Road Yard. See Figure 2.

Avenue 256 to the north of the Project is designated as a County Scenic Roadway under the County General Plan. However, lines of sight into the Project area from Avenue 256 consists of orchards to the east and the existing Road Yard to the north. The Corporate Yard was established prior to Ave 256 being designated as scenic and that all of the expansion will occur deeper into the parcel, which will not result in any additional impacts that may affect the existing scenic vista.

The Master Site Plan proposes a new fire station and fueling station along Road 140. The design considers potential visual impacts to surrounding users, with the building improvements being set back

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

over 100 feet, and include large 20 foot wide landscaped frontage and parking strip areas and trees. The Transit operation yard and the Fire Administration building have been designed into the center of the project area, and in addition to the associated parking areas, include landscaped areas and trees. Hence, the Project design minimizes the impact to any scenic vistas. The road equipment parking area and fire tower, training, and warehousing have been designed furthest from the roadways. Along the western edge of the site, the design further minimizes potential visual impacts of the improvements by the addition of a drainage pond adjacent to the low lying crop lands.

The site is adjacent to the existing County Road Yard to the north, with orchards to the south and west. There are other row crops further to the north and east, and individual rural residences to the south, north and west of the site. Hence, the existing surrounding land uses are all agricultural in nature. As noted in the analysis below, the proposed Project Plan will have a **Less Than Significant Impact** to the overall aesthetics of the area, as it is an extension of the existing County Road Yard. See Figure 3.

a) The proposed Project could potentially affect scenic vistas. (See Appendix A - D) There are eight structures and a fueling station including an 80 foot tower that could impact the scenic vista of the agricultural setting and obstruct or interfere with direct views of the surrounding landscape from Road 140 and Avenue 256. However, with the landscape edge treatment, the existing road yard, and the length of time the yard has been at its current location, the effect of the Project on the surrounding view is **Less than Significant**.

b) The proposed Project will add buildings and a tower to the existing road yard. The site is surrounded by the existing road yard and agricultural uses. Therefore, there are no regular views into the Project, except for/ by travelers. As such, the project will impact views. However, the direct views from the County Designated Roadway, Avenue 256, are blocked by the orchards to the east and west of the site and the existing Road Yard to the north. The Project is conditioned to include 20 feet of frontage landscaping to block direct views into the site. Hence, there will be **No Impact** to this resource.

c) As noted above, the area where the proposed Project will occur is vacant and devoid of any naturally occurring vegetation. These sites are open to public view and will be improved with large landscape buffers, including dozens of trees, turf areas, and other vegetation which will replace the existing vacant lot. Over time, as the trees mature, the vista to the surrounding uses and the public view will be enhanced. Therefore, there will be **No Impact** to this resource.

d) The proposed Project will result in the creation of a new source of light and glare, which may potentially adversely affect day or nighttime views in the area. The existing flood podium lighting is located along the edge of the property and no street lighting is required or exists. Thus, the impacts of new lighting are **Less Than Significant.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
2. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Will the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program (FMMP) of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

Analysis:

The proposed 19.5 acre Project site is located within existing County owned land, with the existing project being considered rural commercial lands per the 2010 FMMP. The 2010 FMMP designates the proposed Project sites as land of Local Importance. Google Aerial maps indicate that the property was farmed as late as 2005, but there is no indication that it has been farmed since. [See Figure 3]. In addition, the Project will not result in rescinding a Williamson Act contract.

The proposed Project will not result in the loss of conversion of prime agricultural land. The proposed Project will not cause a conflict with agricultural land because the current use as a maintenance yard, and proposed fueling, transit, and fire station training are complimentary farming activities. There is an existing irrigation ditch on the south side of the Project that runs diagonally along the southwest corner of the project site that is approximately 150 feet in length; however, the project will not interrupt the of flow to the irrigation ditch during construction, and thus will not impact existing agricultural operations. (See Figure 1)

The Project site is zoned for agricultural purposes (AE-40). Under Section 16, of the Zoning Ordinance, each of the elements of the proposed Project will be allowed through a Special Use Permit. Therefore, the Project will result in **Less Than Significant Impacts** to agricultural resources.

a) Based on aerial photos, the site has not been farmed since 2004, and 2 acres of the northern part of the site have served as a retention basin for the existing County Road Yard. (See Figure 3). The FMMP (2010) category for the Project is "farmland of local importance," as such the proposed Project will not result in the Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the FMMP of the California Resources Agency, to non-agricultural use. It will convert prime agricultural land as defined in Section 51201(C) of the Govt. Code to non-agricultural use because of the Class 1 soils and its Storie Rating of (90). (See Appendix D). However; since the land is not currently farmed and was intended to be used for public works purposes, it is not converting the land to a purpose it was not already or currently being contemplated serving by the County. There will be **No Impacts** related to the conversion of prime farmland.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) The proposed Project will not conflict with existing agricultural zoning as there are special use permit provisions for all components of the proposed Project. In addition, the proposed Project does not impact a Williamson Act Contract. Per the 2011-2012, Department of Conservation, Williamson Act Map, the property is not under Prime Agricultural or Farmland Security Zone designations. Therefore, there will be **Less than Significant** related to zoning conflicts or Williamson Act Contracts. c) The proposed Project will not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources code 12220(g) or timberland (as defined in Public Resource Code section 4526); and therefore there will be **No Impact** to forestland. d) The proposed Project will not result in the loss of forest land or conversion of forest land to non-forest use; and therefore there will **be No Impact** to forestland. e) The proposed Project includes expanding the current road yard maintenance and repair, transit operations, Fire Administration, Fire training and a fueling station. No other changes to the environment outside of the Project site are planned. Therefore, the proposed Project will be consistent with agricultural uses as a permitted use and will not create any impacts. Thus, the potential for conversion will be **Less than Significant** to these resources.				
3. AIR QUALITY: Where available, significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Will 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?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Analysis:

The proposed Project is located in the San Joaquin Valley Air Basin (SJVAB), a continuous inter-mountain air basin. The Sierra Nevada Range forms the eastern boundary; the Coast Range forms the western boundary; and the Tehachapi Mountains form the southern boundary. These topographic features restrict air movement through and beyond the SJVAB. The SJVAB is comprised of San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, and Tulare Counties and the valley portion of Kern County; it is approximately 25,000 square miles in area. Tulare County lies within the southern portion of the SJVAB. The SJVAB is managed by the San Joaquin Valley Air Pollution Control District (SJVAPCD or Air District).

Both the federal government (through the United State Environmental Protection Agency (EPA)) and the State of California (through the California Air Resources Board (ARB)) have established health-based ambient air quality standards (AAQS) for six air pollutants, commonly referred to as "criteria pollutants." The six criteria pollutants are: carbon monoxide (CO), ozone (O3), sulfur dioxide (SO2), nitrogen dioxide (NO2), particulate matter (PM10 and PM2.5), and lead (Pb).

National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been established for each criteria pollutant to protect the public health and welfare. The federal and state standards were developed independently with differing purposes and methods, although both processes are intended to avoid health-related effects. As a result, the federal and state standards differ in some cases. In general, the California state standards are more stringent.

The Federal Clean Air Act requires EPA to set NAAQS for the six criteria pollutants, noted above, that occur throughout the United States. Of the six pollutants, particle pollution and ground-level ozone are the most widespread health threats. EPA regulates the criteria pollutants by developing human health-based and/or environmentally-based criteria (science-based guidelines) for setting permissible levels. The set of limits based on human health is called primary standards. Another set of limits intended to prevent environmental and property damage is called secondary standards.

EPA is required to designate areas as meeting (attainment) or not meeting (nonattainment) the air pollutant standards. The Federal Clean Air Act (CAA) further classifies nonattainment areas based on the severity of the nonattainment problem, with marginal, moderate, serious, severe, and extreme nonattainment classifications for ozone. Nonattainment classifications for PM range from marginal to

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

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

The SJVAB is designated non-attainment of state and federal health based air quality standards for ozone and respirable particulate matter (PM). The federal classification for the SJVAB is extreme non-attainment for the 8-hour ozone standard. To meet Federal Clean Air Act requirements, the District adopted the 2007 Ozone Plan on April 30, 2007. The ARB approved the Plan on June 14, 2007, while the EPA approved the Plan effective April 30, 2012. The Plan projects that the Valley will achieve the 8-hour ozone standard for all areas of the SJVAB no later than 2023. The PM10 standard was been achieved and the US EPA re-classified the Air District as in attainment on September 25, 2008. Even after achieving the PM10 standard, the Air District is currently a PM10 Maintenance Area and all rules and regulations are still in effect. The SJVAB is designated non-attainment for the new state and federal PM2.5 (particulate matter less than 2.5 micrometers in diameter) annual standard. The District's federal PM2.5 attainment plan was adopted in December, 2012. Measures contained in the 2007 PM10 Maintenance Plan will also help reduce PM2.5 levels and will provide progress toward attainment until new measures are implemented for the PM2.5 Plan, if needed. The State does not have an attainment deadline for the ozone standards; however, it does require implementation of all feasible measures to achieve attainment at the earliest date possible. State PM10 and PM2.5 standards have no attainment planning requirements, but must demonstrate that all measures feasible for the area have been adopted.

a) Air quality plans (also known as attainment plans) and subsequent rules are used to bring the applicable air basin into attainment with federal ambient air quality standards designed to protect the health and safety of residents within that air basin. The proposed Project will not conflict with or obstruct implementation of any applicable air quality plan or rule. There will be **No Impact** to this resource.

b) The SJVAB is designated as a federal non-attainment zone for ozone and respirable particulate matter (PM) 2.5. The proposed Project will add various vehicles including a minimum of 15 busses, to the existing 110 daily trips that occur on site. These additional trips do not significantly contribute to a violation (exceedance) of air quality standards or contribute substantially to an existing or projected air quality exceedance. Moreover, a percentage of the additional and existing

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
vehicles are using CNG. This will result in a **Less than Significant Impact** to air quality from the pollutants of this Project. c) The net increase in criteria pollutant emissions from the proposed Project will be negligible as the Project's vehicle emissions, individually, are below the Air District's threshold of significance. Further, compliance with Air District Rule 9510 (Indirect Source Review) will ensure that cumulative growth does not result in an overall increase in emissions in the air basin and will not jeopardize attainment plan deadlines. Therefore, the cumulative net increase in criteria pollutants is **Less Than Significant**. d) The proposed Project has the potential to temporarily expose sensitive receptors to substantial pollutant concentrations over the short-term construction phase and during the daytime operations. The proximity of agricultural residences and the presence of daytime employees may result in a temporary, short-term exposure of air pollutants from construction equipment-related exhaust emissions. Particulate emissions from diesel powered construction equipment are considered a toxic air contaminant. However, construction emissions are temporary and the short-term nature of construction-related emissions, specifically diesel particulate matter (DPM), will not exceed District short term acute toxic risk thresholds. In addition, temporary, short-term fugitive dust will be generated during construction-related earthmoving operations. The use of fugitive dust reduction measures during earthmoving operations with the potential to generate dust required by Air District Regulation VIII (Fugitive PM10 Prohibitions) will substantially reduce PM10 fugitive dust impacts. The impact to this resource is **Less Than Significant**. e) Potential odor sources associated with the proposed Project may originate from diesel and gasoline exhaust from construction equipment during the construction period and during operations with odors from the gasoline exhaust from the busses, and odors from cleaning products, automotive mechanic's sprays, and fire training chemicals. These odors, if perceptible, will dissipate rapidly as they mix with the surrounding air, will be of very limited duration, and will not impact the nearest receptors off the site or in the immediate vicinity. Therefore, any potential odor impacts will be considered as **Less Than Significant**.				
4. BIOLOGICAL RESOURCES Will the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Service?				
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological re-sources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Analysis:

The subject site where the expansion will occur is vacant and devoid of any naturally occurring vegetation making it unlikely that biological resources will be impacted as a result of the proposed Project. The Public Works Department regularly disks the site to prevent weed growth that will pose a fire hazard and the site was in intense farming uses up to 2005. In addition, the northern portion of the site is in constant use by County road equipment. As such, regular disking will have changed the suitability of any potential habitat (such as dens, nesting sites, or foraging grounds) and the noise and

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

disturbance will limit species from residing at this location. In addition, there is a drainage swale and irrigation ditch, which are maintained and kept with limited bio-filtration measures for erosion and sedimentation control by the Public Works Department and irrigation district. The irrigation ditch is marked on USGS Quad maps indicating that it is a potential "waters of the United States." (See Section 404 of the Clean Water Act)

a) The Tulare County Road Yard is located approximately 1.15 miles south of the Harvest-Tulare project site on Road 140. A biological report was recently completed for on October 7, 2013, and based on the California Dep. of Fish & Wildlife Service Natural Diversity Database, a number of sensitive species were identified within 6 miles; however, none occurred on, or within, the immediate vicinity of the project site. (See Appendix E). "The site provides nesting habitat for a few ground nesting birds such as the killdeer and western meadowlark. Native migratory birds are protected by the federal Migratory Bird Treaty Act. If birds were to nest on the project site prior to construction, project-related activities could result in the abandonment of active nests or direct mortality to these birds. Such an activity would constitute a violation of state and federal laws and would be considered a significant impact under CEQA." (See Appendix E).

Based upon the recommendations contained in the biological survey, appropriate measures will be taken to ensure that an accidental take does not occur prior to construction. In the unlikely event of discovery of the above noted species on the site, protocols established by the U.S. Fish and Wildlife Service (USFW) or California Department of Fish and Wildlife (DFW) will be implemented before any construction activities are allowed to commence. If discovery occurs during construction activities, all activities will be immediately ceased until a qualified biologist determines which course of action to implement per USFW, or DFW protocols. The impact to this resource is **Less Than Significant with Mitigation Measures**.

***Mitigation 3-1 (avoidance*).** In order to avoid impacts to all nesting migratory birds initial ground disturbance activities such as grading, scraping, material stockpiling, etc. will occur between September 1 and January 31. This will ensure that construction does not coincide with the nesting season (February 1 to August 31).

***Mitigation 3-2 (pre-construction surveys*).** If ground disturbance must be initiated between February 1 and August 31, a qualified biologist will conduct pre-construction surveys for active migratory bird nests within 15 days of the onset of these activities.

***Mitigation 3-3 (establish buffers*).** Should any active nests be discovered in or near proposed construction zones, the biologist will identify a suitable construction-free buffer around the nest. This buffer will be identified on the ground with flagging or fencing, and will be maintained until the biologist has determined that the young have fledged." (See Appendix E)

"Twelve special status vascular plant species are known to occur in the vicinity of the project site (see Table 1). These plant species are absent from the site due to historic and current land use

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

practices. Therefore, the proposed project would have no impact on regional populations of these special status plant species. Of the 16 special status animal species potentially occurring in the region, 12 species would be absent or unlikely to occur on the site due to unsuitable habitat conditions created by current land use practices. These include the vernal pool fairy shrimp, vernal pool tadpole shrimp, valley elderberry longhorn beetle, California tiger salamander, blunt-nosed leopard lizard, Swainson's hawk, Tipton kangaroo rat, San Joaquin kit fox, western spadefoot, western pond turtle, burrowing owl, and American badger. Since there is little to no likelihood that these species would use the site, disturbance from future development of the project site would have no effect on these species. No loss of habitat or direct impact to these special status plant or animals would occur; therefore, no mitigations are warranted." (See Page 20 of the Appendix E).

b) As noted in item a., above, the proposed Project site is predominantly vacant and devoid of any natural occurring vegetation and there were no species identified as historically occurring within at least 6 miles of the Project site. However, because there is drainage swale and irrigation ditch a biological evaluation was conducted. "There was no disturbance to riparian habitat or other sensitive habitats [because] no riparian or sensitive habitats occur on or adjacent to the project site. Mitigation is not warranted because there are no impacts to riparian habitat." (See Appendix E).

c) A review of the USGS Quad Maps show potential wetlands located on or near the project site. The nearest bodies of water is Deep Creek (approximately 0.5 miles away), and the irrigation canal that transects the south western corner of the site (which is a tributary of the Tulare Colony Canal). The Master Plan does not substantially impact the irrigation ditch through filling, undergrounding, water interruption, or other means. A wetland delineation was conducted and "the onsite irrigation ditch does not meet the jurisdictional requirements of the USACE or CDFW, or RWQCB. [Therefore,] impacts to Waters of the U.S. are absent from the project site and no mitigation is required."

d) The subject site is not identified in the Environmental Resources Management Element as being a migration corridor or wildlife nursery for any wildlife species. "Development within the project area would be in compliance with the provisions of Tulare County General Plan polices related to biological resources. No known Habitat Conservation Plans are in effect for the area." (See Appendix E). There will be **No Impact** as a result of the proposed Project.

e) and f) The proposed Project site is vacant and devoid of any naturally occurring vegetation. The Environmental Resources Management Element of the Tulare County General Plan contains policies that new development be designed in a manner which minimizes disturbance of natural vegetation. There will be **No Impact** as a result of the proposed Project.

5. CULTURAL RESOURCES: Will 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 as defined in §15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Analysis:

a, b, and d) A cultural resources records search (RS #13-275) should be conducted, for Tulare County RMA by the California Historical Resources Information Center (CHRIS), Southern San Joaquin Valley Information Center (SSJVIC) located at California State University, Bakersfield. The records search an examination of the National Register of Historic Places, The History Property Data File July 31, 2013, The California Register, The California Inventory of Historic Resources, and The California Points of Historic Interest (Appendix G). The Project is not located in close proximity to rivers, streams, hilltops, or other sites where Native American cultural resources are likely to occur. Although no cultural resources surveys have been conducted within the current Project area, eight surveys (TU-1002, 379, 422, 1025, 1122, 1324, 1380, and 1469) have been conducted within ½ mile of the proposed Project site; however, the CHRIS did not indicate the results of those surveys. There are no known/recorded cultural resources within a one-half mile radius and it is not known if any exists on the proposed Project site. No formal cemeteries or other places of human internment are known to exist on the proposed Project site; however, in accordance with State Health and Safety Code Section 7050.5 and Public Resource Code Section 5097.98, if human remains are unearthed during project construction, no further disturbance shall occur until the County Coroner has made the necessary findings as to the origin and disposition of such remains. If the remains are determined to be Native American, the Coroner must notify the Native American Heritage Commission (NAHC) within 48 hours of the Coroner's determination. The NAHC will then identify the person(s) thought to be the most likely descendent of the deceased Native American, who will then assist in determining what course of action shall be taken in handling the remains. The proposed Project will not result in a substantial adverse change in the significance of an historical or archaeological resource as defined in Section 15064.5 of the CEQA Guidelines. The impact to this resource is **Less Than Significant**.

c) No paleontological resources are known to exist within the proposed Project area, nor are there any known geologic features in the proposed Project area. Project construction is not expected to disturb any paleontological resources not previously disturbed; however, the measures discussed in item a., above, will ensure proper investigation and handling of any discovery. If, in the course of Project construction or operation, any archaeological or historical resources are uncovered, discovered, or otherwise detected or observed, activities within fifty (50) feet of the find shall immediately cease. A qualified archaeologist and/or paleontologist shall be contacted and advise the County of Tulare of the site's significance. If the findings are deemed significant by the Tulare County Resources Management Agency, appropriate measures shall be required prior to any resumption of work in the affected area of the proposed Project area. The impact to this resource is **Less Than Significant**.

6. GEOLOGY AND SOILS: Will the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially	☐	☐	☒	☐

result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

Analysis:

The Official Maps of Earthquake Fault Zones delineated by the California Geological Survey, State of California Department of Conservation, through December 2010 under the Alquist-Priolo Earthquake Fault Zoning Act, indicate that there are no substantial faults known to occur in Tulare County. The nearest known fault likely to affect the proposed Project site is the San Andreas Fault (approximately 60 miles to the west)

According to the Five County Seismic Safety Element (FCSSE), the Project site is located in the V-1 zone, characterized as a moderately thick section of marine and continental sedimentary deposits overlying the granitic basement complex. The FCSSE further states that, "The requirements of the Uniform Building Code Zone II should be adequate for normal facilities." Amplification of shaking that will affect low to medium-rise structures is relatively high but the distance to either of the fault systems that are expected sources of the shaking is sufficiently great that the effect will be minimal.

a.i.) There are structures that will be constructed as part of the proposed Project, but there are no fault lines or liquefaction concerns in the area (60 miles away) based on the maps, and thus the risk of injury to persons caused by seismic activity is very minimal. There will be a **Less Than Significant** Impact.

a.ii.**)** Any potential impacts regarding strong seismic ground shaking have been discussed in Impact VI. a.i. There will be **No Impact**.

a.iii.) According to the Five County Seismic Safety Element the V-1 zone the Project site has a low risk of liquefaction. No subsidence-prone soils are involved but there is CNG gas production, which will be constructed to building department and environmental health standards, and thus the impact will be **Less Than Significant.**

a.iv.) According to the Five County Seismic Safety Element the V-1 zone the Project site will have a minimal risk of landslides. No geologic landforms exist on or near the site that will result in a landslide event. There will be **No Impact**.

a.v.) The proposed Project does contain activities with large equipment and vehicles that will result in

result minimal roadway subsidence. However, according to the Five County Seismic Safety Element the V-1 zone the proposed Project site inhabits has a low to moderate risk of subsidence. The impact will **be Less Than Significant**.

b) Site construction activities will involve earthmoving and construction activities These activities could expose soils to erosion processes. However, the site is flat and will be covered with asphalt and building. Hence, there will be **Less Than Significant Impact** to soil erosion processes.

To prevent water and wind erosion during the construction period, a Storm Water Pollution Prevention Plan (SWPPP) will be developed for the Project as required for all projects which disturb more than one acre in area. As part of the SWPPP, the applicant will be required to provide erosion control measures to protect the topsoil. Any stockpiled soils will be watered and/or covered to prevent loss due to wind erosion as part of the SWPPP during construction. As a result of these efforts, loss of topsoil and substantial soil erosion during the construction period are not anticipated. The impact will be **Less Than Significant**.

c) Substantial grade change will not occur in the topography to the point where the proposed Project will expose people or structures to potential substantial adverse effects on, or offsite, such as landslides, lateral spreading, liquefaction or collapse. According to the Five County Seismic Safety Element the V-1 zone the proposed Project site is within a low-to-moderate risk of subsidence. The impact will be **Less Than Significant** Impact.

d) According to the USDA, NRCS, and the Soil Survey of Tulare County, the proposed Project site consists of Nord fine sandy loam. (See Appendix G). These soils have a low swelling potential and according to the Department of Conservation are well drained. Shrink-swell potential refers to the change in volume of the soil material from a change in moisture content. Shrinking and swelling of soils as they become dry or wet can affect building foundations, roads, and other structures. Unless preventative or corrective measures are taken to reduce shrink-swell potential the soil is less suitable for buildings, roads, and other structures. The structures planned for construction is the multi-use events shade structure. Engineering and design features of the proposed Project will ensure that proper preventative measure will be taken to eliminate any adverse shrink-swell impacts on the proposed Project. This impact will be **Less Than Significant**.

e) The proposed Project will include the use of a septic system that will be reviewed and approved by The Tulare County Environmental Health Department. There will be **No Impact**.

6. GREENHOUSE GAS EMISSIONS: Will 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, based on any applicable threshold of significance?				
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Analysis:

This Initial Study/Negative Declaration is relying on the guidance and expertise of the Valley Air District in addressing GHG emissions. The following is an excerpt contained in the San Joaquin Valley Air Pollution Control District's Draft Guidance for Assessing and Mitigating Air Quality Impacts – 2012:

"By enacting SB 97 in 2007, California's lawmakers expressly recognized the need to analyze greenhouse gas emissions as a part of the CEQA process. SB 97 required OPR to develop, and the Natural Resources Agency to adopt, amendments to the CEQA Guidelines addressing the analysis and mitigation of greenhouse gas emissions. It is widely recognized that no single project could generate enough GHG emissions to noticeably change the global climate temperature. However, the combination of GHG emissions from past, present and future projects could contribute substantially to global climate change. Thus, project specific GHG emissions should be evaluated in terms of whether or not they will result in a cumulatively significant impact on global climate change.

On December 17, 2009, the District's Governing Board adopted the District Policy: *Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency*. The District's Governing Board also approved the guidance document: *Guidance for Valley Land-Use Agencies in Addressing GHG Emission Impacts for New Projects Under CEQA.* In support of the policy and guidance document, District staff prepared a staff report: *Addressing Greenhouse Gas Emissions Under the California Environmental Quality Act*. These documents and the supporting staff report are available on-line at the District's website at www.valleyair.org.

In summary, the staff report evaluates different approaches for assessing significance of GHG emission impacts. As presented in the report, District staff reviewed the relevant scientific information and concluded that the existing science is inadequate to support quantification of the extent to which project specific GHG emissions will impact global climate features such as average air temperature, average rainfall, or average annual snow pack. In other words, the District was not able to determine a specific quantitative level of GHG emissions increase, above which a project will have a significant impact on the environment, and below which will have an insignificant impact. This is readily understood, when one considers that global climate change is the result of the sum total of GHG emissions, both manmade and natural that occurred in the past; that is occurring now; and will occur in the future.

In the absence of scientific evidence supporting establishment of a numerical threshold, the District policy applies performance based standards to assess project specific GHG emission impacts on global climate change. The determination is founded on the principal that projects whose emissions have been reduced or mitigated consistent with the California Global Warming Solutions Act of 2006, commonly referred to as "AB 32", should be considered to have a **less than significant impact** on global climate

change. For a detailed discussion of the District's establishment of thresholds of significance for GHG emissions, and the District's application of said thresholds, the reader is referred to the above referenced staff report, District Policy, and District Guidance documents."

Per the Tulare County Climate Action Plan (TCAP), in determining CEQA Project Level Consistency with the TCAP, projects with at least 50 units or emitting approximately 2 tons of (NOx) are required to quantify project emissions and demonstrate a six (6) percent (%) reduction. (See TCAP page 57). The 6% reduction is the CEQA project level threshold in Tulare County in order to have a less than significant impact. Each project, when combined with the CARB Scoping Plan and regional measures and programs, will bring the County into consistency with the CCAP and AB 32's requirements as stated above. Therefore, since the project is implementing the Appendix J alternatives from the Tulare County Climate Action Plan, the transit operations yard and existing road yard are not emitting in excess of 2 tons of CO2 equivalent,. The list of applicable BPS are included in this IS/MND as Appendix H, and any combination of strategies that are used for commercial buildings can be used as estimated CO2 equivalent point reductions for this Project. (See Appendix H).

a and b) The Project will most likely generate greenhouse gas emissions, either directly or indirectly, that would have had a significant impact on the environment, based on the TCAP, threshold of significance. However, the Project is designed to reduce Vehicle Miles Traveled (VMT) and energy consumption and therefore, will not have a significant effect on GHG. There will be GHG emissions from construction and earthmoving equipment during the construction stage and from operational emissions from idling vehicles and equipment, motorized lawn care, and other mechanical and maintenance equipment. Conversely, the proposed Project will provide GHG emission reduction benefits including its purpose as the Transit Operations Yard for the County, the utilization of CNG fuel for the busses and other County vehicles (including fire trucks), and the site will provide CNG fueling. Thus, the proposed Project will generate greenhouse gas emissions, either directly or indirectly, that will not have a significant impact on the environment (based on a required overall reduction of 20% in the region with a 6% reduction required by this project), and the Project as currently proposed is in compliance with the Tulare County Climate Action Plan (2010) and the SJVAB's Climate Change Action Plan (CCAP) (2008) for the purpose of reducing the GHG's. Furthermore, in designing the Project utilizing Appendix J of the TCAP, in a combination thereof, there will be a total of 6% reduction of GHG's, this has reduced the Project's impacts to **Less Than Significant**.

7. HAZARDS AND HAZARDOUS MATERIALS: Will 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?	☐	☐	☒	☐
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 or risk explosion?				
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, will it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project result in a safety hazard for people residing or working the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, will the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Analysis:

a, b) A “hazardous material” is a substance or combination of substances that, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may pose a potential hazard to human health or the environment when handled improperly. The few hazardous materials associated with the project (fueling operation, truck mechanic’s equipment and materials, and potentially fire training chemicals) will be handled through policies, procedures, and permitting to ensure **No Impact** occurs.

c) The Project Area is not within one-quarter mile of an existing or proposed school. There is **No Impact**.

d) The Project is not located on a site which is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, it will not create a significant hazard to the public or the environment. There will be **No Impact**.

e-f) The nearest airport, Visalia Municipal Airport (located in Visalia, CA), is approximately 8.7 miles northwest of the proposed Project site. As such, the airport will pose no safety hazard to future employees. There will be **No Impact**.

g) The proposed Project will not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. In fact the site will serve as part of the Emergency Operations Center thus resulting in a beneficial effect. Thus, there will be **No adverse Impact.**

h) As the proposed Project is located outside of any wildland areas, the proposed site will not result in any exposure to people or structures to a significant risk of loss, injury or death from wildland fires. As the proposed project is located outside of any wildland areas, the proposed site will not result in any exposure to people or structures to a significant risk of loss, injury or death from wild land fires. There will be **No Impact**.

8. HYDROLOGY AND WATER QUALITY:

Will the project:

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	Potentially Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge or the direction or rate of flow of ground-water such that there will be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells will drop to a level which will not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) 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 will result in substantial erosion or siltation on-or off-site?	☐	☐	☐	☒
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course or stream or river, or substantially increase the rate or amount of surface runoff in a manner which will result in flooding on-or off-site?	☐	☐	☐	☒
e) Create or contribute runoff water which will exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which will impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Analysis:

a) The proposed Project contains site grading and drainage concepts that incorporate a drainage pond system to capture and detain all the storm water on site. In addition, the Project also contains a septic system that will capture the sewage and is required to meet County environmental health standards before, during, and post construction. This septic system will also have to hold all the truck wash water in compliance with State and Federal Regulations. Given compliance with these regulations impacts to water quality and waste discharge will be **Less Than Significant**.

b) The Project will utilize a detention basin that will eventually percolate/infiltrate water back into the aquifer. In addition, the septic field will also release water that will eventually percolate back into the aquifer. The proposed Project will result in 78 employees. As such, a public water system will be required. Therefore, despite an increase in usage by increased employees and washing facilities, the proposed Project will not substantively deplete groundwater supplies or substantively interfere with groundwater recharge or the direction or rate of flow of ground-water such that there will be a significant net deficit in aquifer volume or a lowering of the local groundwater table level. Thus, impacts to groundwater supplies will **be Less Than Significant**.

c-d) The Project will not impact the existing irrigation ditch and drainage is contained on site, therefore, the Project will **Not Impact** existing drainages away from the site.

e) As noted in the analysis of item 6. b. of the Geology/Soils discussion, to prevent water and wind erosion during the construction period, a Storm Water Pollution Prevention Plan (SWPPP) will be developed for the Project, as required for all projects which disturb more than one acre in size. As part of the SWPPP, erosion control measures will be required to protect the topsoil. Any stockpiled soils will be watered and/or covered to prevent loss due to wind erosion as part of the SWPPP during construction. As a result of these efforts, loss of topsoil and substantial soil erosion during the construction period is not anticipated. The proposed Project will include a detention basin that will store any potential runoff in a 10 year event and be designed to Public Works and RWQCB standards. Thus, there will be **Less Than Significant Impacts**.

g - h) According to information provided in the 2009 National Flood Insurance Rate Map prepared for the Federal Emergency Management Agency, the Project lies within Flood Zone X (areas of 0.2% annual chance of flood; areas of 2% annual chance flood with average depths of less than one foot or with drainage areas less than 1 square mile and areas protected by levees from 1% annual chance flood). Therefore, neither the structure that will be constructed nor any housing will be located within a 100-year flood hazard area. Thus, there will be **No Impact**.

i) The Project is protected from flooding of the Kaweah River by the Terminus Dam. However, according to the Tulare County General Plan Background Report Page 8-17, there is a chance that Terminus Dam could cause severe flooding in case of dam failure, of which the Project is within the 500 year flood plain and dam failure inundation zone. (See Figure 8-1 of the General Plan Background Report). Therefore, the Project has the potential to expose people or structures to a risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam, or inundation by seiche, tsunami or mudflow. However, according to the U.S. Army [Corps of Engineers?], the Army Corp of Engineers reduced the risk for downstream flooding from about a 1-in-50 to less than a 1-in-70 chance each year by rebuilding the pressure release mechanisms on the dam. http://www.army.mil/article/53577/heavy-lifting-keeps-corps-dam-in-working-order/. Thus, the risk of flooding is **Less than Significant**.

9. LAND USE PLANNING: Will the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less than Significant Impact	No Impact

		Incorporated		
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Analysis:

a) The proposed Project site is in a remote location surrounded by agricultural uses. Expanding an existing use in the middle of an agricultural zoned area will not result in physically dividing an established community. There will be **No Impact** to an established community.
b) The current use was established under Special Use Permit 75-17; and hence, with an expanded special use permit will have a **Less than Significant Impact**
c) The Project does not conflict with any applicable habitat conservation plans or natural community conservation plans. Hence, there will be **No Impact** to either plan.

11. MINERALS AND OTHER NATURAL RESOURCES: Will the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in a loss of availability of a known mineral or other natural resource (timber, oil, gas, water, etc.) that will be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Analysis:

a) According to the CA Department of Conservation, there are only three areas within Tulare County that produce gas and oil: Deer Creek North, Deer Creek, and Terra Bella. These fields are located in the eastern Valley portion of Tulare County. No gas or oil fields are located within or near the proposed Project area. Timber and water resources are also absent within and near the proposed Project area. The proposed Project will result in **No Impact** to this resource.

b) The Tulare County Environmental Resources Management Element (ERME) states, "The most important contributors to the economics of Tulare County's mineral production are clay, sand, gravel, and crushed rock as well as natural gas." The ERME also notes that, "Three streams have been major sources of sand and gravel in Tulare County – the Kaweah River, Lewis Creek, and the Tule River." These sources are located in the eastern Valley portion of Tulare County, thus they are neither within nor near the proposed Project area. The nearest Tulare County surface mine is K&G Ranches, located approximately 0.29 miles south of the Tulare County Road Yard on Road 140. However, this mining operation (a walnut orchard which replaced some sand with soil suitable for walnut trees) has completed excavation, and the Road Yard will not interfere with its operation. The Mineral Resources Zone (MRZ) map shows no other potential mineral zones in the Project vicinity; therefore, no impacts on mineral resources are anticipated. The proposed Project will result in **No Impact** to this resource.

12. NOISE: Will the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been or public use airport, will the adopted, within two miles of a public	☐	☐	☐	☒

airport project expose people residing or working in the project area to excessive noise levels?				
f) For a project within the vicinity of a private airstrip, will the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Analysis:

The Noise Element of the Tulare County General Plan (1988) recognizes areas that are potentially noise-impacted for existing (1986) and future (2010) conditions. Figure 3 of the Tulare County Noise Element establishes noise level criteria for typical land uses throughout Tulare County. Exterior noise levels in and 50-75 dB Ldn (or CNEL), or below are considered acceptable for industrial, manufacturing utilities, and agriculture land uses.

The distinction between short-term construction noise impacts and long-term operational noise impacts is a typical one in CEQA documents and local noise ordinances, which generally acknowledge that short-term noise from construction-related activities is inevitable and cannot be mitigated beyond a certain level. The Tulare County Noise Element does not identify short-term, construction-noise-level thresholds. It does, however, limit noise generating activities such as construction to hours of normal business operation unless specific County approval is given. Thus, local agencies consent to short-term noise at levels that they will not accept from permanent noise sources.

a) Proposed Project construction-related activity will involve temporary noise sources from construction and earthmoving equipment operations which are anticipated to last 2 years. Typical construction equipment will include a grader, trencher, and other miscellaneous equipment. During the construction phase, noise from construction activities will contribute to the noise environment in the immediate proposed Project vicinity. Activities involved in construction will generate maximum noise levels, as indicated in the table below, ranging from 79 to 91 dBA at a distance of 50 feet, without feasible noise control (e.g., mufflers, well maintained equipment, shielding noisier equipment parts, and/or time and activity constraints) and ranging from 75 to 80 dBA at a distance of 50 feet, with feasible noise control. The nearest two individual residences are located approximately .15 to .2 miles to the west and south of the proposed Project site. Although the noise generated from earthmoving equipment may exceed the 75 dB Ldn during earthmoving operations, the impact is short-term, temporary, and will only occur during normal business hours, typically from 8:00 a.m-5:00 p.m. In addition, this will occur near agricultural land uses. The impact is **Less Than Significant**.

Table
Typical Construction Noise Levels

Type of Equipment	dBA at 50 ft	
	Without Feasible Noise Control	With Feasible Noise Control[1]
Dozer or Tractor	80	75
Excavator	88	80
Scraper	88	80
Front End Loader	79	75
Backhoe	85	75
Grader	85	75
Truck	91	75

Source: U.S. Department of Transportation, Federal Transit Administration. 2006.
[1] Feasible noise control includes the use of intake mufflers, exhaust mufflers, and engine shrouds operating in accordance with manufacturers specifications.

b) Vibration is the periodic oscillation of a medium or object. Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. Similar to airborne sound, ground borne vibrations may be described by amplitude and frequency. Vibration amplitudes are usually expressed in peak particle velocity (PPV) or root mean squared (RMS), as in RMS vibration velocity. The PPV and RMS (VbA) vibration velocity are normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal and is often used in monitoring of blasting vibration because it is related to the stresses that are experienced by buildings (FTA 2006).

Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. As it takes some time for the human body to respond to vibration signals, it is more prudent to use vibration velocity when measuring human response. The vibration velocity level is reported in decibels relative to a level of 1x10-6 inches per second and is denoted as VdB. The typical background vibration-velocity level in residential areas is approximately 50 VdB. Ground borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels (FTA 2006).

Typical outdoor sources of perceptible ground borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. Construction vibrations can be transient, random, or continuous. The approximate threshold of vibration perception is 65 VdB, while 85 VdB is the vibration acceptable only if there are an infrequent number of events per day (FTA 2006). The table below describes the typical construction equipment vibration levels.

Typical Construction Vibration Levels	
Equipment	**VdB at 25 ft^2**
Small Bulldozer	58
Jackhammer	79

Source: U.S. Department of Transportation. Federal Transit Administration, Transit Noise and Vibration Impact Assessment. 2006.

Vibration from construction activities will be temporary and not exceed the FTA threshold for the nearest residences, approximately 0.15 miles and 0.2 miles to the west and south of the proposed Project. The impact will be **Less Than Significant**.

c) Proposed Project construction-related activity will involve temporary noise sources from earthmoving equipment operations, which are anticipated to last approximately through 2017. Thus avoiding a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. The impact is **Less Than Significant**.

d) Proposed Project construction-related activity will involve temporary noise sources from earthmoving equipment operations which is anticipated to last approximately three to six months resulting in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. The impact is **Less Than Significant**.

e - f) The proposed Project is not located within an airport land use plan or, where such a plan has not been or public use airport, will the adopted, within two miles of a public airport project nor is it within the vicinity of a private airstrip. There is no possibility of exposing people residing or working in the project area to excessive noise levels in or near an existing airport public or private airstrip. There will be **No Impact**.

13. POPULATION AND HOUSING: Will the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Analysis:

a - c) The proposed Project will provide government services that will result in expanded employment at this location. However, it will be speculative to conclude that the addition of new employees will be growth inducing because it cannot possibly be known how many new employees will originate from Tulare County. It will not result in demographic or population changes; it will not induce growth; it will not alter the location, distribution, or density of the area's population; it will not displace any housing or people; nor will it conflict with the adopted housing element. There will be **No Impact** to these resources.

14. PUBLIC OR UTILITY SERVICES: Will the project result in substantial adverse physical impacts associated with the provision of new or physically altered government and public services facilities, need for new or physically altered government 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:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Fire protection?	☐	☐	☐	☒
b) Police protection?	☐	☐	☐	☒
c) Schools?	☐	☐	☐	☒
d) Parks?	☐	☐	☐	☒
e) Other public facilities?	☐	☐	☒	☐

Analysis:

a) The Project includes a fire station. The inclusion of a fire station will not cause significant environmental impacts in order to maintain performance objectives. The services will be expanded and thus the Project is beneficial. There will be **No Impact**.

b) Police services to the project site, which is located in unincorporated Tulare County, are provided by the County of Tulare Sheriff's Office. In addition, the site will include a storage area, which will be staffed by Sheriff's Office personnel, thus the Sheriff's presence will serve as a benefit to the site

and area. The proposed Project will not include any new uses that will lead to an increase in demand for law enforcement services. **There will be no impact**.

c) The proposed Project will not result in the need for expanded school facilities as it is a government services use. There will be **No Impact**.

d) The proposed Project provides a benefit, as there are currently no parks within the community. There will be **No Impact** to this resource.

e) The proposed Project will result in very minimal electricity needs for interior and exterior security lighting. No extension of outside electrical line services will be needed. The impact will be **Less Than Significant**. Since the Project is an expansion of the existing Road Yard Facility, the proposed Project will not result in the need for additional communication service lines. The impact will be **Less than Significant**. The proposed Project will not result in need for increased demand for other public services causing a need for the expansion of public facilities that will cause adverse physical environmental effects. There will be **No Impact.**

15. RECREATION: Will the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Analysis:

a) There are no existing neighborhood or regional parks in the vicinity. Therefore, the proposed Project will not result in an increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated. There will be **No Impact** to this resource.

b) The proposed Project will not include recreational facilities or require construction or expansion of a recreational facility. There will be **No Impact** to this resource.

16. TRANSPORTATION/TRANSIT Will the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☒	☐	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☒	☐	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Analysis:

a and b) Per the County's General Plan the acceptable Level of Service is LOS D. "Intersections

Results of the LOS intersection analysis along the street and highway system in the project area from Existing through the Cumulative 2040 Plus Project scenario are reflected in Appendix F. [The Traffic Impact Study (TIS)] shows the intersections that are expected to fall short of desirable operating conditions for various scenarios. Of the ten (10) studied intersections, four (4) will exceed the level of service standard under the Cumulative 2040 With and Without Project scenarios."

"Segments

Results of the LOS segment analysis along the street and highway system in the project area from Existing through the Cumulative 2040 With Project scenario shows the roadway segments that are expected to fall short of desirable operating conditions for various scenarios. (See Appendix F). All but one of the roadway segments analyzed as part of this TIS are expected to exceed the level of service standard under the Cumulative 2040 With and Without Project scenarios." (See Appendix F.) Therefore, the impact will be **less than significant with mitigation**.

Suggested Improvements based on the TIS:

EXISTING PLUS PROJECT CONDITIONS

For this scenario, the following improvements are recommended:

Road 140 at SR 137

- Widen the westbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 right turn lane).

NEAR-TERM (YEAR 2016) CONDITIONS

Road 140 at SR 137

- Widen the southbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 right turn lane).
- Widen the westbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 right turn lane).

Road 140 between Caldwell Avenue and Avenue 256

- Widen the roadway segment from 2 travel lanes to 4 travels (adding 2 travel lanes)

CUMULATIVE 2040 WITHOUT PROJECT CONDITIONS

For this scenario, the following improvements are recommended:

Road 140 at Caldwell Avenue

- Widen the northbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane (adding 1 right turn lane).
- Widen the southbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane (adding 1 right turn lane).

- Widen the eastbound approach to 2 left turn lanes, 2 through lanes, and 1 right turn lane (adding 1 left turn lane and 1 right turn lane).
- Widen the westbound approach to 2 left turn lanes, 2 through lanes, and 1 right turn lane (adding 1 left turn lane and 1 right turn lane).

SR 63 at Avenue 256

- Widen the northbound approach to 2 left turn lanes, 2 through lanes, and 1 right turn lane (adding 1 left turn lane and 1 right turn lane).
- Widen the southbound leg of the intersection to accommodate 3 receiving lanes
- Widen the southbound approach to 2 left turn lanes, 3 through lanes, and 1 right turn lane (adding 1 left turn lane, 1 through lane, and 1 right turn lane).
- Widen the eastbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 left turn lane and 1 right turn lane).
- Widen the westbound leg of the intersection to accommodate 2 receiving lanes
- Widen the westbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 left turn lane and 1 right turn lane).

Road 140 at Avenue 256

- Widen the southbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 right turn lane).
- Widen the westbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 right turn lane).

Road 140 at SR 137

- Widen the northbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 right turn lane).
- Widen the southbound approach to 2 left turn lanes, 1 through lane, and 1 right turn lane (adding 1 left turn lane and 1 right turn lane).
- Widen the eastbound leg of the intersection to accommodate 3 receiving lanes
- Widen the eastbound approach to 1 left turn lane, 3 through lanes, and 1 right turn lane (adding 2 through lanes and 1 right turn lane).
- Widen the westbound leg of the intersection to accommodate 3 receiving lanes
- Widen the westbound approach to 1 left turn lane, 3 through lanes, and 1 right turn lane (adding 2 through lanes and 1 right turn lane).

Road 140 between Caldwell Avenue and Avenue 256

- Widen the roadway segment from 2 travel lanes to 4 travels (adding 2 travel lanes)

Road 140 between Avenue 256 and SR 137

- Widen the roadway segment from 2 travel lanes to 4 travels (adding 2 travel lanes)

Avenue 256 between SR 63 and Road 140

- Widen the roadway segment from 2 travel lanes to 4 travels (adding 2 travel lanes)

CUMULATIVE 2040 WITH PROJECT CONDITIONS

For this scenario, the following additional improvements are recommended:

Road 140 at SR 137

- Widen the northbound approach to 2 left turn lanes, 1 through lane, and 1 right turn lane (adding 1 left turn lane and 1 right turn lane).

The formula used to calculate the equitable share responsibility to Caltrans facilities is as follows:

Equitable Share = (Project Trips)/(Future Year Plus Approved Project Traffic – Existing Traffic)

Table 2 shows the equitable share responsibility to Caltrans, Tulare County, and City of Visalia facilities for 2040 conditions.

TABLE 2

Equitable Fair-Share Responsibility

INTERSECTION	EXISTING 2013	PROJECT TRIPS	CUMULATIVE 2040 WITH PROJECT	FAIR SHARE PERCENTAGE
Road 140 / Caldwell Avenue	1,878	18	4,766	0.6%
SR 63 / Avenue 256	1,769	24	4,247	1.0%
Road 140 / Avenue 256	1,079	50	2,340	4.0%
Road 140 / SR 137	1,176	15	3,919	0.5%
SEGMENTS				
Road 140: Caldwell Avenue to Avenue 256	835	19	1,850	1.9%
Road 140: Avenue 256 to Project Driveway 6	743	50	1,277	9.4%
Road 140: Project Driveway 6 to SR 137	743	17	1,294	3.1%
Avenue 256: SR 63 to Road 140	215	27	1,079	3.1%

Therefore, the County's mitigation is to pay their fair share of the impacts to the Caltrans, which is a 1% fair share to SR 63 / Avenue 256 and do the improvements at Project Driveway 6 to SR 137, either at this time or at some future time when the improvements are necessary. The remaining roadway segments and intersections are within the County, and the County will improve those intersections in the future based on future demands and the available funding.

Mitigation Measures for a) and b):

***Mitigation Measure* 16-1**. Pay 1 % of the County's fair share of improvements to Caltrans for intersection improvements at SR 63 / Avenue 256 either now or when the improvements are required.

c) The proposed Project is not near an airport and will not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. There will be **No Impact**.

d) The proposed Project will be developed adjacent to existing streets; as such it will not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). There will be **No Impact**.

e) As there will be no changes to any streets directly adjacent to or in proximity of the proposed Project site that could be used for emergency access, there will be **No Impact**.

f) The proposed Project will not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. There will be **No Impact** to this resource.

17. UTLITIES AND SERVICE SYSTEMS: Will the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b) Require or result in the construction of new water or wastewater treatment or collection facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies, including fire flow available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the	☐	☐	☐	☒

project's projected demand in addition to the provider's existing commitments?				
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Analysis:

a and b) The proposed Project includes restroom facilities that require wastewater treatment. Drinking fountains and truck wash facilities will also be included as part of the Project. As such, the proposed Project will require new or expanded water or wastewater treatment or collection facilities. As noted earlier, both drinking water and wastewater will comply with Environmental Health requirements thereby minimizing any potential adverse impact. There will be **No Impact**.

c) As noted in Item **9 Hydrology and Water Quality, c-f**, above, a drainage pond will be included as part of the proposed Project for storm-water detention; and the proposed Project will not create or contribute runoff water, which will exceed the capacity of existing or planned storm water drainage systems. Thus, the proposed Project will result in the relocation and expansion of the existing storm water drainage facility on site in an already vacant non-vegetated area of the site. There will be a **Less Than Significant Impact**.

d) The existing site receives potable (drinking) water from a well on site. These services will need to be expanded for incorporation of the expanded employees and uses; as such there the Project will have to potentially expand its capacity for both drinking water and fire flow. Preliminary Plans suggest a new well and filtrations system. As the site is currently vacant and considered part of the existing corporate yard site, no new or expanded entitlements may be needed. The Road Yard currently has a well on site that could be used for irrigation. The specific water provider for irrigating purposes will be determined following completion of design and engineering plans. By incorporating water conservation measures noted the use of water for irrigating will be maximized to the extent feasible and practicable. The impact will be **Less Than Significant**.

e) The project will have its own dry wells for sewer purposes and is not part of a municipal or other agency sewer system. Therefore, no other municipality or agency will be impacted by this Project. There will be **No Impact.**

f) The proposed Project will not generate solid waste in quantities that will potentially impact a landfill in an adverse manner, as such; it will be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs. There will be **No Impact**.

g) The proposed Project does not involve a landfill, a materials transfer station, or a composting facility. All applicable federal, state, and local statutes and regulations related to solid waste will be strictly adhered to. Emergency service expansion will not generate a need to violate any solid waste regulations. There will be **No Impact**.

18. MANDATORY FINDINGS OF SIGNIFICANCE:	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, reduce the number or restrict the range of an endangered, rare or threatened plant or animal species, or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☒
b) Does the project have environmental impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☒
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Analysis:

a) As discussed in Item 4 Biological Resources, the proposed Project site is vacant and devoid of any naturally occurring vegetation. No riparian habitat or other sensitive natural communities were observed during a visual inspection by RMA staff; however, a biological survey will be conducted prior to commencement of construction-related activities to document the absence of riparian habitat or other natural communities. The proposed Project will add an aquatic feature on the Project site in the form of a storm-water retention swale; however, it has been noted that the primary function of the swale is for storm-water detention. The site does may contain riparian habitat or other natural communities and there maybe wetlands in proximity of the site. Based upon the recommendations contained in the biological survey, appropriate measures will be taken to ensure that an accidental take does not occur. As noted in item 5. No formal cemeteries or other

places of human internment are known to exist on the Project site. Therefore, the proposed Project does not 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, reduce the number or restrict the range of an endangered, rare or threatened plant or animal species, or eliminate important examples of the major periods of California history or prehistory. There will be **No Impact** to this resource.

b) The proposed Project will result in an increase to public services and reduce traffic because it is the County's Transit Operations Center. As such, the Project will result in additional bus transit services throughout the County. It will be speculative to conclude that the addition of new employees will be growth inducing because it cannot possibly be known how many new employees will originate from Tulare County. The Project is not growth inducing, therefore, it will not impact resources such as air quality, noise, Greenhouse Gas Emissions, hazard or hazardous materials, hydrology and water quality, population and housing, pubic services, transportation/traffic, or utilities and service systems substantively more than the existing use.

c) The proposed Project will add public services and reduce vehicle miles travelled throughout the County. In addition, the Project's vehicles will use CNG Fuel thereby reducing the impact on the air quality and it will expand the current public uses currently provided by the County Road Yard. The proposed Project will not result in environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly. There will be **No Adverse Impact** to this resource.

VI. Mitigation Monitoring and Reporting Program:

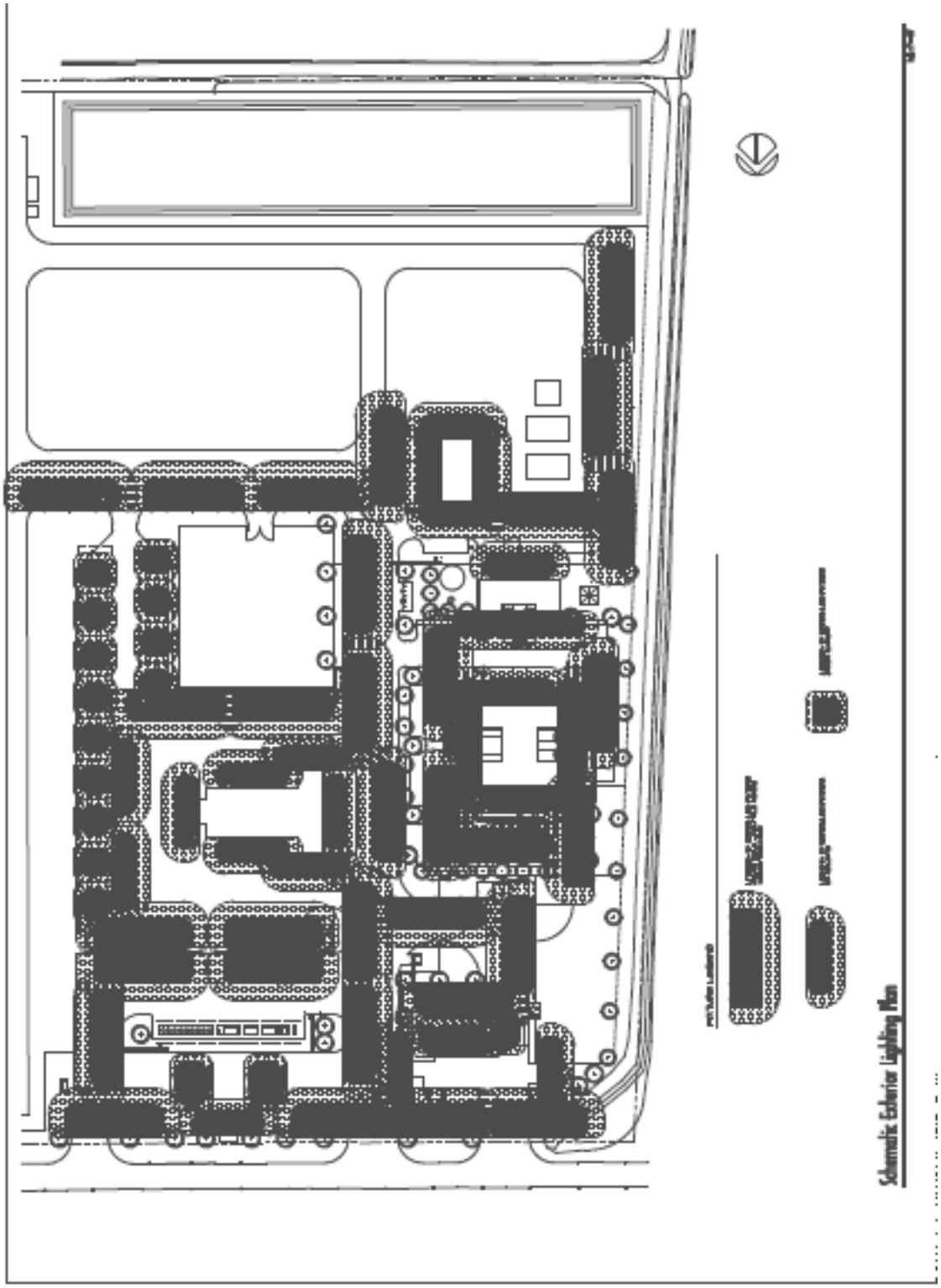
***Mitigation 3-1* (*avoidance*).** In order to avoid impacts to all nesting migratory birds initial ground disturbance activities such as grading, scraping, material stockpiling, etc. will occur between September 1 and January 31. This will ensure that construction does not coincide with the nesting season (February 1 to August 31).

***Mitigation 3-2* (*pre-construction surveys*).** If ground disturbance must be initiated between February 1 and August 31, a qualified biologist will conduct pre-construction surveys for active migratory bird nests within 15 days of the onset of these activities.

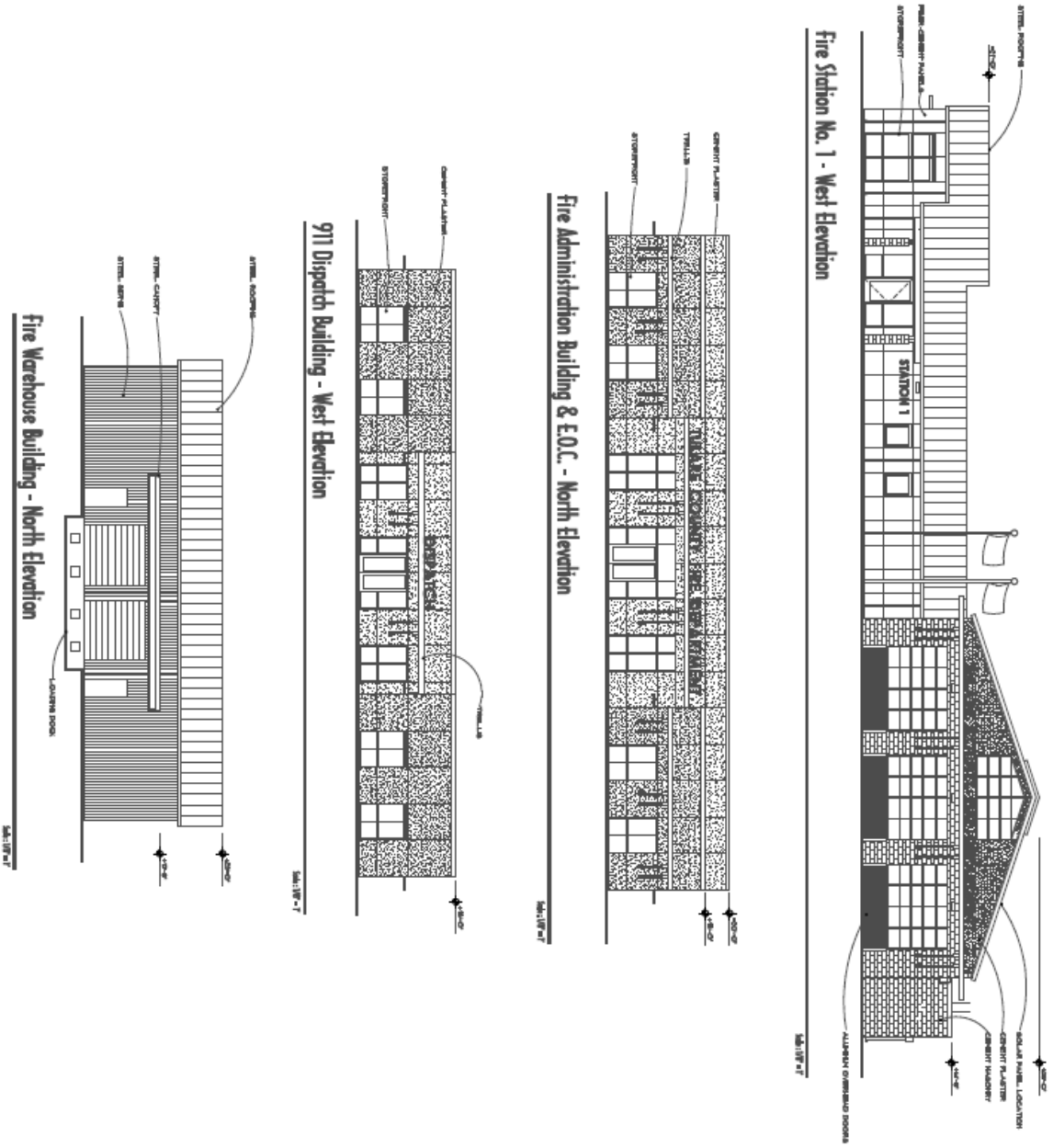
***Mitigation 3-3* (*establish buffers*).** Should any active nests be discovered in or near proposed construction zones, the biologist will identify a suitable construction-free buffer around the nest. This buffer will be identified on the ground with flagging or fencing, and will be maintained until the biologist has determined that the young have fledged

***Mitigation Measure* 16-1**. Pay 1 % of the County's fair share of improvements to Caltrans for intersection improvements at SR 63 / Avenue 256.

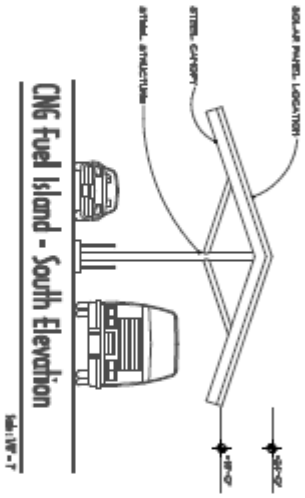
Appendix A
Lighting Plan

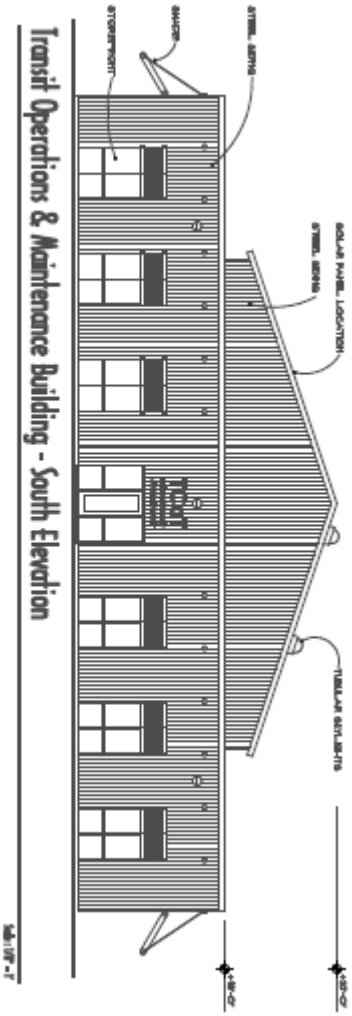


Appendix B
Fire Station Elevation 1

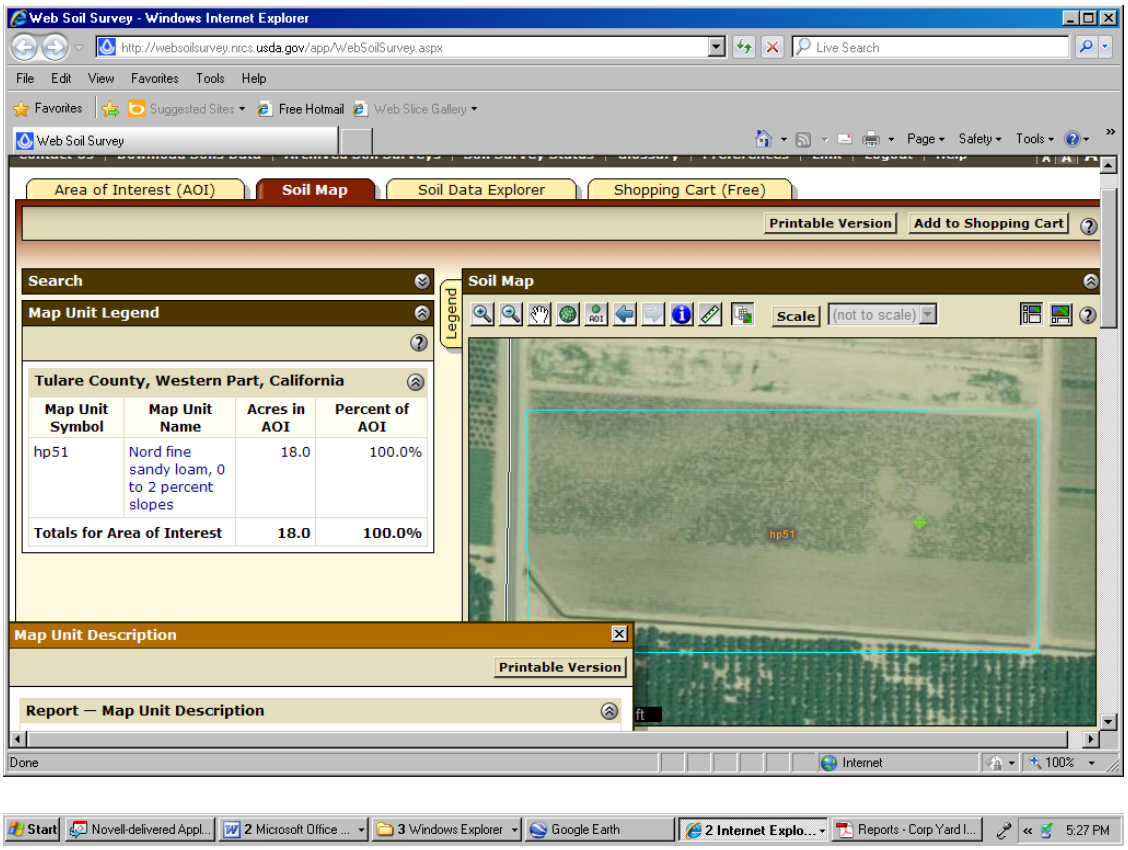


Appendix C
Transit Station Elevation 1





Appendix D
NRCS Soils Map



Appendix E
Wetland Delineation and Biological Evaluation

Appendix E
Wetland Delineation and Biological Evaluation

LIVE OAK ASSOCIATES, INC.

an Ecological Consulting Firm

TULARE COUNTY CENTRAL ROAD YARD EXPANSION PROJECT
BIOLOGICAL EVALUATION
TULARE COUNTY, CALIFORNIA

Prepared by

LIVE OAK ASSOCIATES, INC.

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EXECUTIVE SUMMARY

Live Oak Associates, Inc. (LOA) conducted an investigation of the biological resources of the Tulare County Road Yard Expansion site in Tulare County, California, and evaluated likely impacts to such resources resulting from the expansion project. The following report is an analysis of impacts to the biological resources on or within the vicinity of the project. The approximately 19.5 acre site is located approximately three miles northeast of the City of Tulare in Tulare County. On October 1, 2013, LOA biologist Jeff Gurule surveyed the site for biotic habitats, the plants and animals occurring in those habitats, and significant habitat values that may be protected by state and federal law.

The project site consisted of vacant land with an irrigation ditch at the southern end. The predominant land use in the vicinity is agricultural. The habitat/land use identified on the site is characterized as "ruderal".

Any native habitats once present on the site have been altered by human enterprise such that the site has little to no suitable habitat for locally occurring special status plant and animal species. The site provides no suitable habitat for special status plant species. Only three special status wildlife species potentially utilize the site, for foraging only; the tricolored blackbird, western mastiff bat, and the pallid bat. Impacts to these species are considered less than significant due to the loss of a small amount of regionally abundant foraging habitat. Nesting or roosting habitat for these species is absent from the project site and the project is expected to have no direct impact on these species. However, project development has the potential to adversely impact ground nesting birds. Should the project be constructed during the avian nesting season mitigations, that include preconstruction surveys and avoidance buffers around active nests, have been developed that will reduce impacts to nesting birds to a less than significant level and assure project compliance with state and federal law. Project impacts will be absent for wildlife movement corridors, jurisdictional waters, and sensitive habitats. The project does not conflict with local plans or policies regarding biological resources, including any Habitat Conservation Plans.

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1.0 INTRODUCTION

The technical report that follows describes the biotic resources of the Tulare County Central Road Yard Expansion Project site (hereafter referred to as the "project site" or "site"), and evaluates possible impacts to those resources that could result from the road yard expansion.

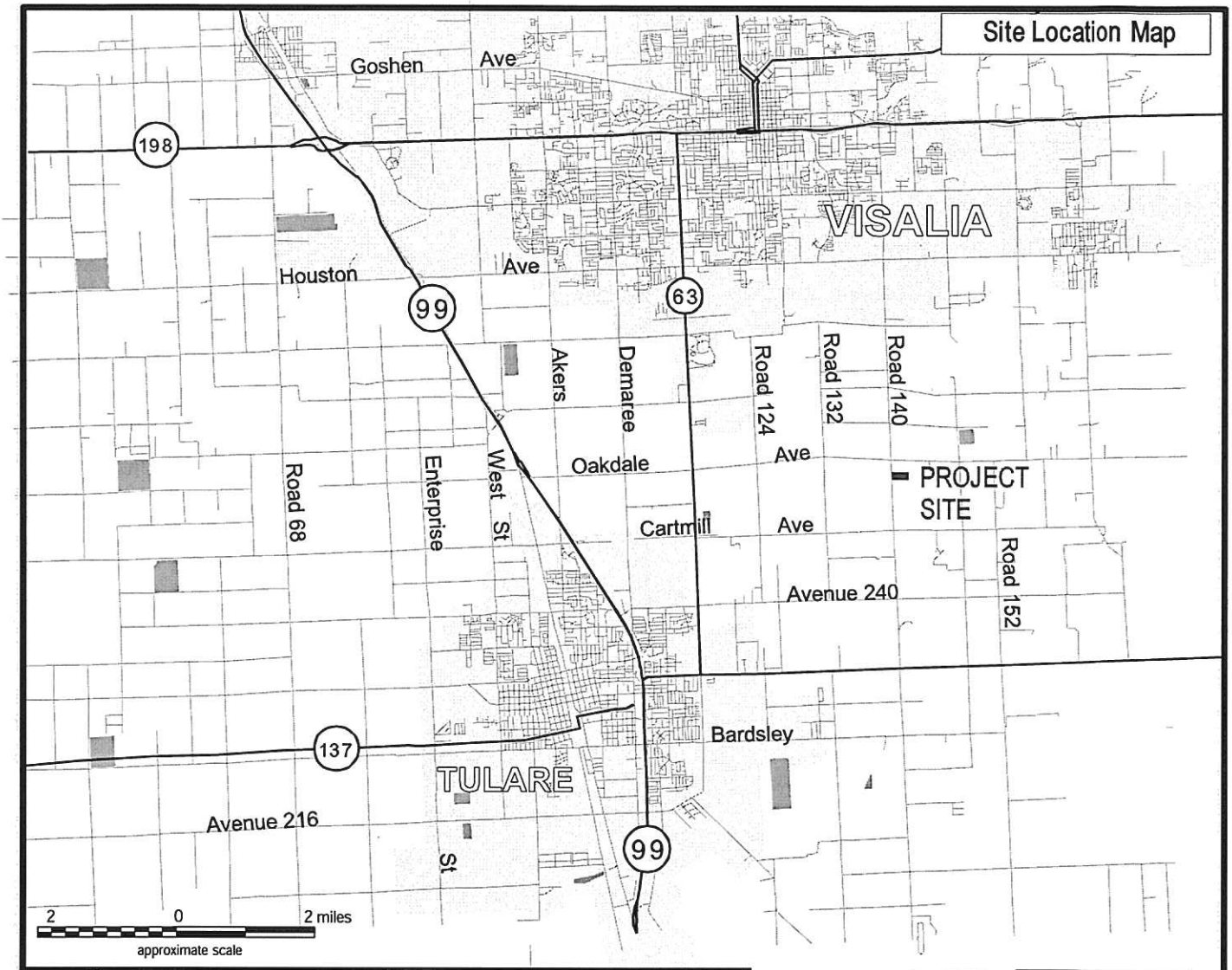
1.1 PROJECT LOCATION AND DESCRIPTION

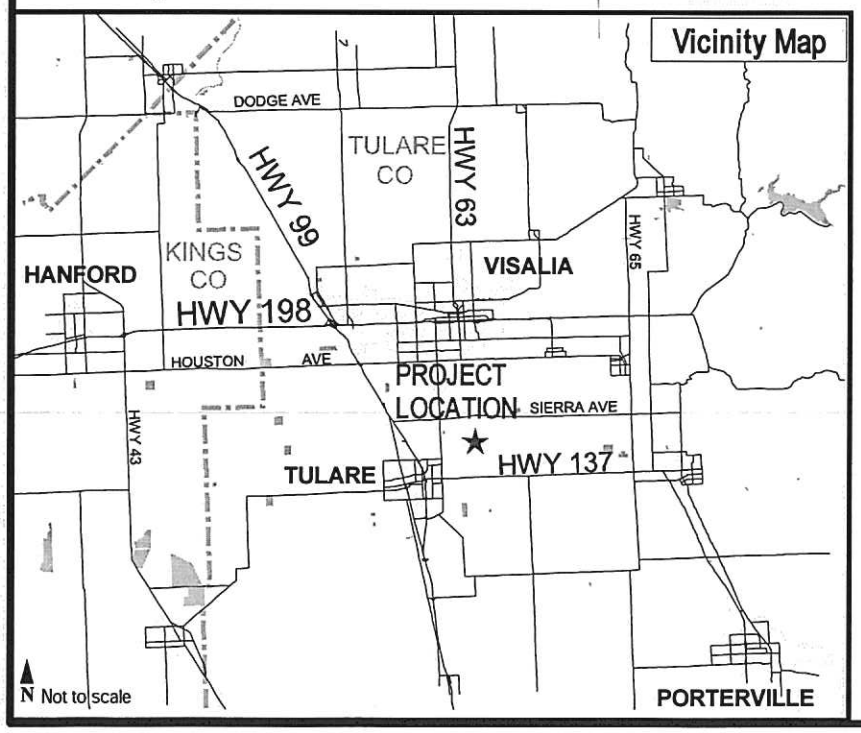
The project site is located on the south half of a 40-acre parcel (APN 152-010-007) owned by Tulare County. The north half of this parcel is currently utilized as the Tulare County Road Yard. The County is proposing to expand the road yard onto the southern half of this parcel. The total acreage of the proposed project is 19.5 acres. The proposed expansion will include a new Road Operations Facility, a Fire Administration and Emergency Operations Center, a fast fill Compressed Natural Gas (CNG) fueling facility, Road Maintenance equipment parking area, Sheriff's Office evidence storage structures, a storm water retention basin, a septic leach field, and an internal road system. The project site is located at the southeast corner of Road 140/Avenue 256 intersection, approximately three miles northeast of the City of Tulare, in Tulare County, CA (Figure 1).

1.2 REPORT OBJECTIVES

The development of projects in Tulare County may damage or modify biotic habitats used by sensitive plant and wildlife species. In such cases, site development may be regulated by state or federal agencies, subject to provisions of the California Environmental Quality Act (CEQA), and/or covered by policies and ordinances of Tulare County. This report addresses issues related to: 1) Sensitive biotic resources occurring on the project site; 2) The federal, state, and local laws regulating such resources; and 3) Mitigation measures which may be required to reduce the magnitude of anticipated impacts and/or comply with permit requirements of state and federal resource agencies. As such, the objectives of this report are to:

- Summarize all site-specific information related to existing biological resources.
- Make reasonable inferences about the biological resources that could occur onsite based on habitat suitability and the proximity of the site to a species' known range.





Live Oak Associates, Inc.

Tulare County Central Road Yard Expansion

Site / Vicinity Map

Date	Project #	Figure #
10/09/2013	1802-01	1

- Summarize all state and federal natural resource protection laws that may be relevant to possible future site development.
- Identify and discuss project impacts to biological resources likely to occur on the site within the context of CEQA or any state or federal laws.
- Identify avoidance and mitigation measures that would reduce impacts to a less-than-significant level (as identified by CEQA) and are generally consistent with recommendations of the resource agencies for affected biological resources.

1.3 STUDY METHODOLOGY

The analysis of impacts, as discussed in Section 3.0 of this report, is based on the known and potential biotic resources of the project site discussed in Section 2.0. Sources of information used in the preparation of this analysis included: (1) the *California Natural Diversity Data Base* (CDFW 2013), (2) the *Online Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2013), and (3) manuals, reports, and references related to plants and animals of the San Joaquin Valley region. A reconnaissance-level field survey of the project site was conducted on October 1, 2013 by LOA ecologist Jeff Gurule. The survey consisted of walking approximately 100 ft wide transects across the site in order to gain full visual coverage of the entire site. During the field visit the principal land use of the site was identified and the constituent plants and animals were noted. Comprehensive surveys for sensitive biological resources were not conducted, nor were deemed necessary, for this study. Field surveys conducted for this study were sufficient to assess the significance of possible biological impacts associated with the development plans for the project site.

2.0 EXISTING CONDITIONS

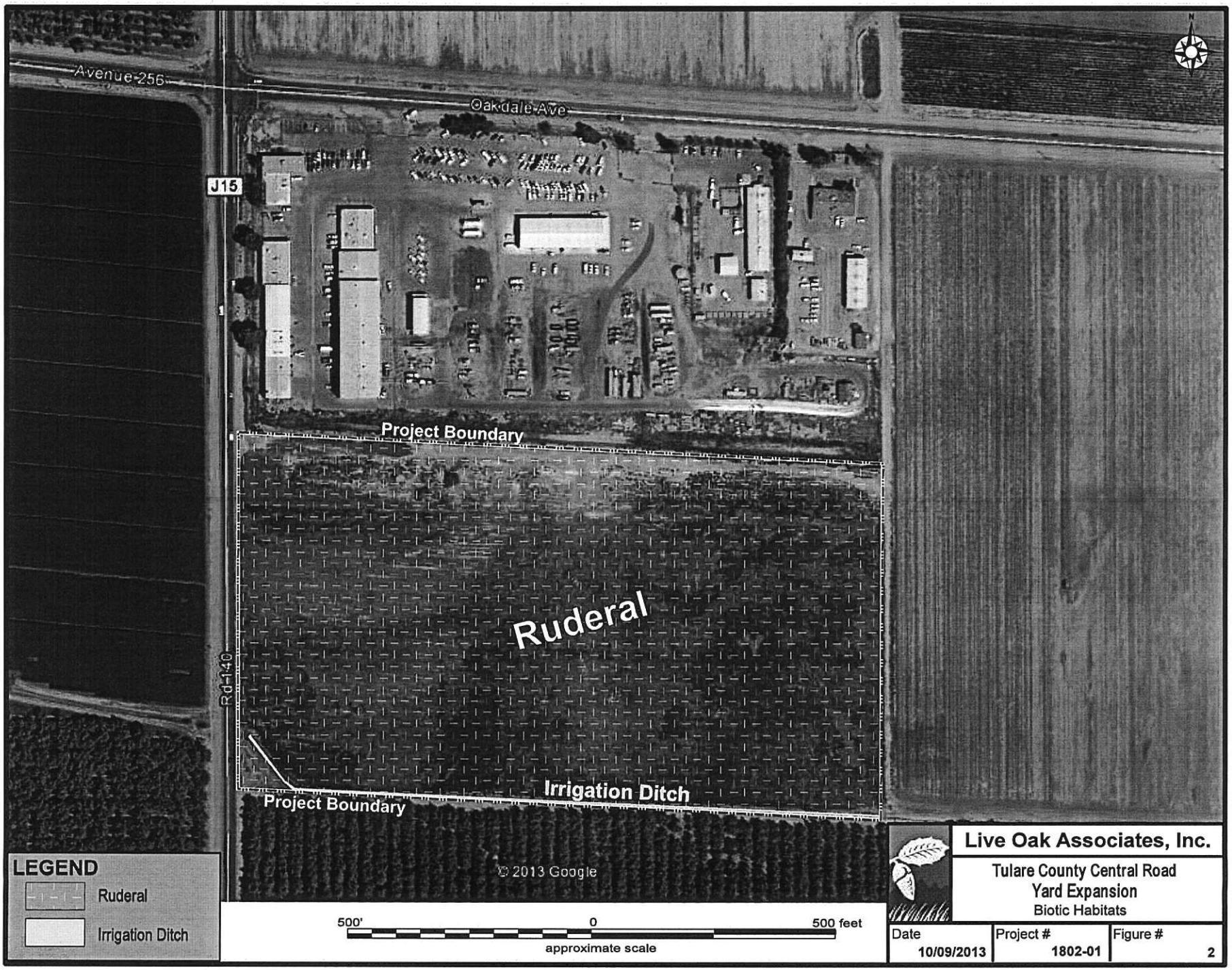
The project site is located in the San Joaquin Valley of California approximately 3.0 miles northeast of the City of Tulare and 11 miles west of the Sierra Nevada foothills. At the time of the survey the project site consisted of a heavily disturbed disced field that contained material stock piles, gravel surfaces, and evidence of heavy equipment traffic (Figure 2). Any native habitats once present on the site have been completely transformed to a ruderal state by human activity. Historic uses of the site consist of agricultural cultivation.

The topography of the project site is nearly level. The elevation of the site is approximately 325 feet National Geodetic Vertical Datum (NGVD). Natural drainage features such as creeks, ponds, vernal pools, etc. are not present on the project site. An unnammed irrigation ditch runs along the southern border of the site and cutting across the southwestern corner (Figure 2).

Soils of the site consist of a single soil mapping unit, Nord fine sandy loam, 0 to 2 percent slopes. Site soils have been altered through discing, grading, and the addition of stockpiled material and gravel over portions of the site such that any native soil characteristics potentially supporting sensitive biological resources no longer exist on the site.

The project site is located in a region of California having a Mediterranean climate. Summers are dry and typically quite warm with daytime temperatures commonly exceeding 100° Fahrenheit. Winters are rainy and cool with daytime temperatures rarely exceeding 65° Fahrenheit. Annual precipitation in the general vicinity of the project site is highly variable from year to year with a mean annual rainfall of approximately 11 inches, most of which falls between the months of October and March. Virtually all precipitation falls in the form of rain. Stormwater likely infiltrates onsite soils with little to no surface runoff.

Surrounding lands are highly disturbed, consisting of walnut orchard to the south and west, the existing County Road yard to the north, and disced field to the east.



Live Oak Associates, Inc.

Tulare County Central Road
Yard Expansion
Biotic Habitats

Date	Project #	Figure #
10/09/2013	1802-01	2

2.1 BIOTIC HABITATS/LAND USES

One habitat/land use type was observed on the project site during the October 2013 biological field survey, characterized as "ruderal" and "ditch". A list of the vascular plant species observed within the project site and the terrestrial vertebrates using, or potentially using, the site are provided in Appendices A and B, respectively. Photos of the project site are presented in Appendix C.

2.1.1 Ruderal

The ruderal habitat/land use occurring on the site is characterized by past agricultural use of the land and current material storage and annual discing that occurs on the land. All lands on the project site have been disturbed to some degree by discing, grading, scraping, trenching (irrigation ditch only), heavy equipment traffic, and material stockpiling. Vegetation consisted of weedy herbaceous vegetation, primarily of European origin. Vegetation included a few non-native wetland species within a small portion of the irrigation ditch and weedy upland species across the rest of the site. Trees and shrubs were absent from the site. The irrigation ditch was dry during the October field survey. Wetland species observed in the ditch consisted of Mexican sprangletop (*Leptochloa uninervia*) and watergrass (*Echinochloa crus-galli*). Upland species observed across the remainder of the site consisted of red brome (*Bromus madritensis ssp. rubens*), Canada horseweed (*Erigeron canadensis*), fiddleneck (*Amsinckia sp.*), pigweed amaranth (*Amaranthus albus*), Russian thistle (*salsola tragus*), and Bermuda grass (*Cynodon dactylon*), among others.

The number of native animal species expected to utilize the project site is very small due to human disturbance of the site and surrounding lands. Amphibians using this habitat would be limited to species tolerant of human activities. Pacific chorus frogs (*Pseudacris regilla*) may occur in or around the irrigation canal. Reptile species potentially using the site may include the side-blotched lizard (*Uta stansburiana*) (observed), gopher snake (*Pituophis melanoleucus*), and common kingsnake (*Lampropeltis getulus*). The site provides some foraging habitat but little cover for avian species. However, year-round resident birds such as the killdeer (*Charadrius vociferus*), western meadowlark (*Sturnella neglecta*), European starling (*Sturnus vulgaris*), Say's

phoebe (*Sayornis saya*), house sparrow (*Passer domesticus*), mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), and house finch (*Carpodacus mexicanus*) could be expected to use the site from time to time. Two winter migrants, the white-crowned sparrow (*Zonotrichia leucorphrys*) (observed) and savannah sparrow (*Passerculus sandwichensis*) may utilize the site. The western kingbird (*Tyrannus verticalis*) is a common summer migrant to agricultural lands of the region that may occasionally use the site for foraging as well.

Mammalian use of the site is expected to be limited. Rodent burrows observed on the site were limited to a few Botta's pocket gopher (*Thomomys bottae*) burrows. The limited rodent use of the site would attract few mammalian predators. However, coyote (*Canis latrans*), striped skunks (*Mephitis mephitis*), and raccoons (*Procyon lotor*) may visit the site from time to time. Various bat species may forage over the site from time to time.

2.2 SPECIAL STATUS PLANTS AND ANIMALS

Several species of plants and animals within the state of California have low populations and/or limited distributions. Such species may be considered "rare" and are vulnerable to extirpation as the state's human population grows and the habitats these species occupy are converted to agricultural and urban uses. As described more fully in Section 3.2, state and federal laws have provided the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. A sizable number of native plants and animals have been formally designated as "threatened" or "endangered" under state and federal endangered species legislation. Others have been designated as candidates for such listing. Still others have been designated as "species of special concern" by the CDFW. The California Native Plant Society (CNPS) has developed its own set of lists of native plants considered rare, threatened, or endangered (CNPS 2013). Collectively, these plants and animals are referred to as "special status species."

Special status species are known to occur in the vicinity of the project site (Figure 3). Special status species, and their potential to occur on the project site, are listed in Table 1. Sources of information for this table included *California's Wildlife, Volumes I, II, and III* (Zeiner et. al

1988-1990), *California Natural Diversity Data Base* (CDFW 2013), *Annual Report on the Status of California State Listed Threatened and Endangered Animals and Plants* (CDFW 2011), and *The California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2013). This information was used to evaluate the potential for special status plant and animal species to occur onsite. It is important to note that the California Natural Diversity Data Base (CNDDB) is a volunteer database; therefore, it may not contain all known literature records.

A search of published accounts for all of the relevant special status plant and animal species was conducted for the Visalia USGS 7.5-minute quadrangle in which the project site occurs, and for the eight surrounding quadrangles (Tulare, Exeter, Cairns Corner, Traver, Monson, Ivanhoe, Paige, and Goshen) using the CNDDB Rarefind 2013.

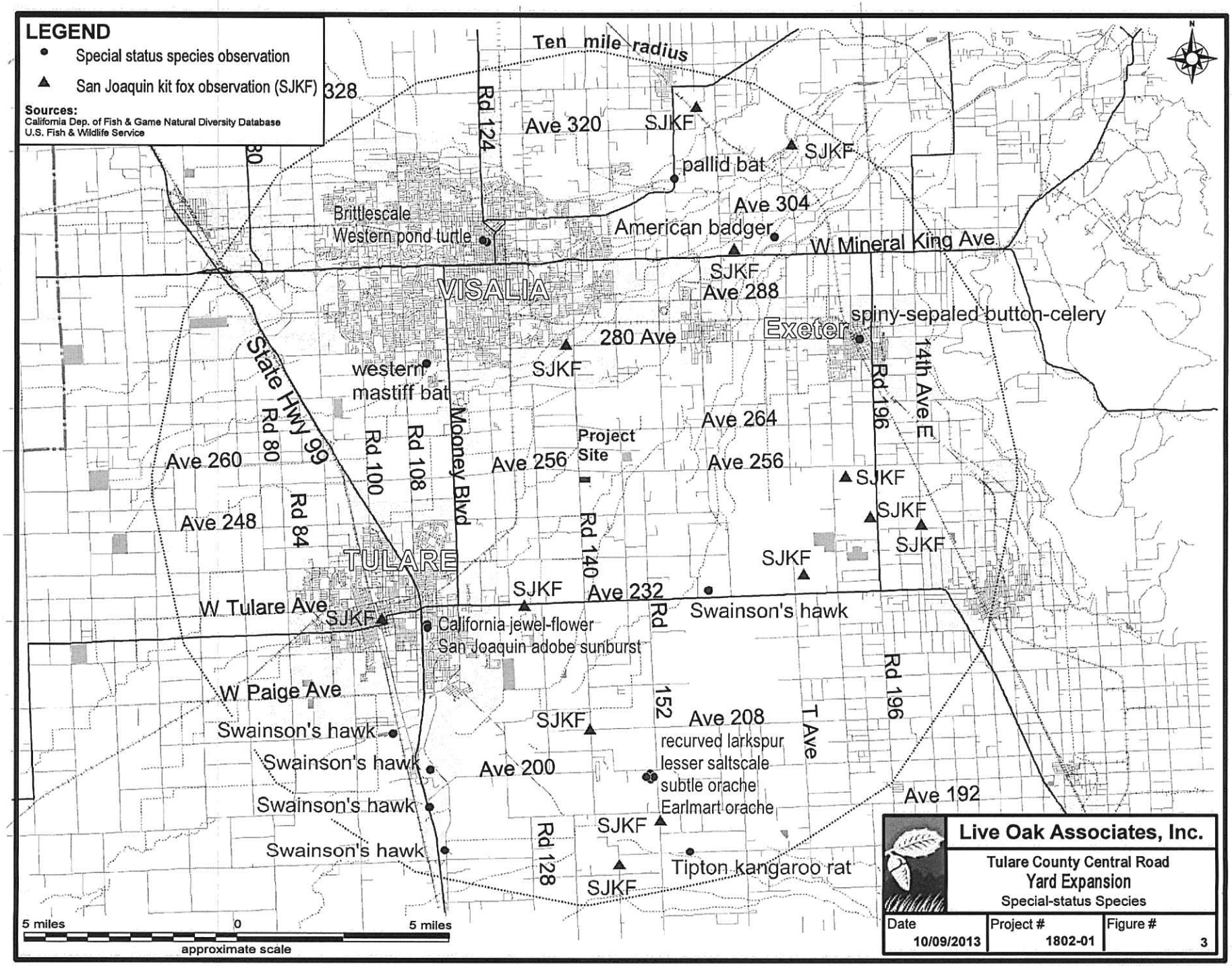

LEGEND
Special status species observation
San Joaquin kit fox observation (SJKF)
Sources:
California Dep. of Fish & Game Natural Diversity Database
U.S. Fish & Wildlife Service
Ten mile radius
328
Rd 124
Ave 320
SJKF
pallid bat
Ave 304
American badger
Brittlescale
Western pond turtle
W Mineral King Ave
VISALIA
Ave 288
spiny-sepaled button-celery
Exeter
280 Ave
western mastiff bat
State Hwy 99
Rd 80
Rd 100
Rd 108
Mooney Blvd
Project Site
Ave 264
Rd 196
14th Ave E
Ave 260
Ave 256
Ave 248
Rd 84
Rd 140
TULARE
W Tulare Ave
Ave 232
Swainson's hawk
California jewel-flower
San Joaquin adobe sunburst
W Paige Ave
152 Rd
Ave 208
recurved larkspur
lesser saltscale
subtle orache
Earlmart orache
T Ave
Ave 200
Ave 192
Rd 128
Tipton kangaroo rat
5 miles
0
5 miles
approximate scale
Live Oak Associates, Inc.
Tulare County Central Road
Yard Expansion
Special-status Species
Date 10/09/2013
Project # 1802-01
Figure # 3

TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

PLANTS (adapted from CDFG 2013 and CNPS 2013)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	*Occurrence on the Project Site
California Jewel-Flower (*Caulanthus californicus*)	FE, CE, CNPS 1B	Chenopod scrub and valley and foothill grassland. Blooms February-May.	**Absent.** Habitats required by this species do not occur onsite.
San Joaquin Adobe Sunburst (*Pseudobahia peirsonii*)	FT, CE, CNPS 1B	Occurs in grasslands of the western foothills of the Sierra Nevada in heavy clay soils of the Porterville, Cibo, Mt. Olive and Centerville series. Blooms March-April.	**Absent.** The habitat and soils occurring on the project site are unsuitable for this species.
Hoover's Spurge (*Chamaesyce hooveri*)	FT, CNPS 1B	Occurs in vernal pools of California's Central Valley forming on volcanic mud flows and clay substrate.	**Absent.** Suitable habitat in the form of vernal pools does not exist on the site.
San JoaquinValley Orcutt Grass (*Orcuttia inaequalis*)	FE, CE CNPS 1B	Vernal pools California's Central Valley. Requires deep pools with prolonged periods of inundation. Blooms April-September.	**Absent.** Suitable habitat in the form of vernal pools does not exist on the site.

Other special status plants listed by CNPS

Heartscale (*Atriplex cordulata var. cordulata*)	CNPS 1B	Occurs in cismontane woodland and valley and foothill grassland of the San Joaquin Valley; blooms April–October.	**Absent.** Historic and current use of the site has rendered it unsuitable for this species.
Earlimart orache (*Atriplex cordulata var. erecticaulis*)	CNPS 1B	Occurs in valley and foothill grasslands between 131 and 328 feet. Blooms Aug.-Sep.	**Absent.** Historic and current use of the site has rendered it unsuitable for this species.
Brittlescale (*Atriplex depressa*)	CNPS 1B.2	Occurs in relatively barren areas with alkaline clay soils in chenopod scrub, playas, valley grasslands, and vernal pools of the Central Valley.	**Absent.** Historic and current use of the site has rendered it unsuitable for this species.
Lesser Saltscale (*Atriplex minuscula*)	CNPS 1B	Occurs in cismontane woodland and valley and foothill grassland of the San Joaquin Valley; blooms May–October.	**Absent.** Historic and current use of the site has rendered it unsuitable for this species.
Vernal Pool Smallscale (*Atriplex persistens*)	CNPS 1B	Vernal pools on alkaline soils. Blooms June-October.	**Absent.** Historic and current use of the site has rendered it unsuitable for this species.
Subtle Orache (*Atriplex subtilis*)	CNPS 1B	Occurs in valley and foothill grasslands of the San Joaquin Valley. Blooms August-October.	**Absent.** Historic and current use of the site has rendered it unsuitable for this species.

TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

PLANTS (cont'd)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	*Occurrence on the Project Site
Recurved Larkspur (*Delphinium recurvatum*)	CNPS 1B	Chenopod scrub, cismontane woodlands, and alkaline soils of valley and foothill grasslands. Blooms March-May.	**Absent.** Historic and current use of the site has rendered it unsuitable for this species.
Spiny-Sepaled Button Celery (*Eryngium spinosepalum*)	CNPS 1B	Vernal pools and wetland swales of Fresno and Tulare Counties. Blooms in April-May	**Absent.** Vernal pools and swales required by this species are absent from the project site.

ANIMALS (adapted from CDFG 2013 and USFWS 2013)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Vernal Pool Fairy Shrimp (*Branchinecta lynchi*)	FT	Vernal pools of California's Central Valley.	**Absent.** Vernal pools required by this species are absent from the project site.
Vernal Pool Tadpole Shrimp (*Lepidurus packardi*)	FE	Primarily found in vernal pools of California's Central Valley.	**Absent.** Vernal pool habitat required by this species is absent from the project site.
Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*)	FT	Mature elderberry shrubs of California's Central Valley and Sierra Foothills.	**Absent.** Elderberry shrubs, the obligate habitat required by this species, are absent from the project site and surrounding lands.
California Tiger Salamander (*Ambystoma californiense*)	FT , CSC	Found primarily in annual grasslands. Breeds in vernal/ seasonal pools or perennial pools which lack fish or bullfrogs. Requires rodent burrows for refuge.	**Absent.** Historic and current use of the site has rendered it unsuitable for this species. Breeding pools required by this species are absent from the project site and surrounding land. Furthermore, the project site is well south of this species' known range (CDFW 2013).
Blunt-Nosed Leopard Lizard (*Gambelia silus*)	FE, CE, CP	Frequents grasslands, alkali meadows and chenopod scrub of the San Joaquin Valley.	**Absent.** Historic and current use of the site has rendered it unsuitable for this species.
Swainson's Hawk (*Buteo swainsoni*)	CT	Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah. Requires adjacent suitable foraging areas such as grasslands or alfalfa fields supporting rodent populations.	**Unlikely.** Given the paucity of rodent burrows observed and the disturbed nature of the site, Swainson's hawks would be unlikely to find much foraging opportunity on the site. Suitable nesting habitat is absent from the project site. The nearest recorded observation is approximately 3.75 miles to the southeast (CDFW 2013).
Tipton Kangaroo Rat (*Dipodomys nitratoides nitratoides*)	FE, CE	Chenopod scrub and alkali grasslands of the Tulare Basin from Fresno County in the north to Kern County in the south.	**Absent.** Historic and current use of the site has rendered it unsuitable for this species.

TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

ANIMALS – cont'd.

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	*Occurrence on the Project Site
San Joaquin Kit Fox (Vulpes macrotis mutica)	FE, CT	Frequents desert alkali scrub and annual grasslands and may forage in adjacent agricultural habitats. Utilizes enlarged (4 to 10 inches in diameter) ground squirrel burrows as denning habitat.	**Absent.** Historic and current use of the site and surrounding lands has rendered it unsuitable for this species. The nearest recorded observations are from maps published in 1975 showing historic distribution of kit fox at the edges of the Cities of Visalia and Tulare approximately 3.25 miles to the north and southwest of the site (CDFW 2013).

State Species of Special Concern

Western Spadefoot (*Spea hammondii*)	CSC	Primarily occurs in grasslands, but also occurs in valley and foothill hardwood woodlands. Requires vernal pools or other temporary wetlands for breeding.	**Absent.** Vernal pools required by this species are absent from the project site and surrounding lands.
Western Pond Turtle (*Emys marmorata*)	CSC	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites of sandy banks or grassy open fields for egg laying.	**Absent.** Suitable aquatic habitat is absent from the project site and surrounding lands.
Burrowing Owl (*Athene cunicularia*)	CSC	Frequents open, dry annual or perennial grasslands, deserts, and scrublands characterized by low growing vegetation. Dependent upon burrowing mammals, most notably the California ground squirrel, for nest burrows.	**Absent.** Historic and current use of the site has rendered it unsuitable for this species. Furthermore, no open burrows were observed on the project site during the field survey.
Loggerhead Shrike (*Lanius ludovicianus*)	CSC	Frequents open habitats with sparse shrubs and trees, other suitable perches, bare ground, and low herbaceous cover. Can often be found in cropland.	**Possible.** This species may occasionally forage on the site. Breeding habitat is absent.
Tricolored Blackbird (*Agelaius tricolor*)	CSC	Breeds near fresh water, primarily emergent wetlands, with tall thickets. Forages in grassland and cropland habitats.	**Possible.** The site provides possible foraging habitat; breeding habitat is absent.

TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

ANIMALS – cont'd.

State Species of Special Concern

Species	Status	Habitat	*Occurrence on the Project Site
Pallid Bat (*Antrozous pallidus*)	CSC	Roosts in rocky outcrops, cliffs, and crevices with access to open habitats for foraging. May also roost in caves, mines, hollow trees and buildings.	**Possible.** This species may forage over the site; roosting habitat is absent.
Western Mastiff Bat (*Eumops perotis* ssp. *californicus*)	CSC	Frequents open, semi-arid to arid habitats, including conifer, and deciduous woodlands, coastal scrub, grasslands, palm oasis, chaparral and urban. Roosts in cliff faces, high buildings, trees and tunnels.	**Possible.** This species may forage over the site; roosting habitat is absent.
American Badger (*Taxidea taxus*)	CSC	Found in drier open stages of most shrub, forest and herbaceous habitats with friable soils.	**Absent.** Historic and current use of the site has rendered it unsuitable for this species.

***Explanation of Occurrence Designations and Status Codes**

Present: Species observed on the sites at time of field surveys or during recent past.
Likely: Species not observed on the site, but it may reasonably be expected to occur there on a regular basis.
Possible: Species not observed on the sites, but it could occur there from time to time.
Unlikely: Species not observed on the sites, and would not be expected to occur there except, perhaps, as a transient.
Absent: Species not observed on the sites, and precluded from occurring there because habitat requirements not met.

STATUS CODES

FE	Federally Endangered	CE	California Endangered
FT	Federally Threatened	CT	California Threatened
FPE	Federally Endangered (Proposed)	CR	California Rare
FC	Federal Candidate	CP	California Protected
		CSC	California Species of Special Concern

CNPS	California Native Plant Society Listing		
1A	Plants Presumed Extinct in California	3	Plants about which we need more information – a review list
1B	Plants Rare, Threatened, or Endangered in California and elsewhere	4	Plants of limited distribution – a watch list
2	Plants Rare, Threatened, or Endangered in California, but more common elsewhere		

2.3 JURISDICTIONAL WATERS

Jurisdictional waters include rivers, creeks, and drainages that have a defined bed and bank and which, at the very least, carry ephemeral flows. Jurisdictional waters also include lakes, ponds, reservoirs, and wetlands. Such waters may be subject to the regulatory authority of the U.S. Army Corps of Engineers (USACE), the CDFW, and the California Regional Water Quality Control Board (RWQCB). See Section 3.2.4 of this report for additional information.

The USACE has, in the past, claimed jurisdiction over irrigation ditches if they both receive and deliver water to a water of the U.S. LOA's investigation of the onsite irrigation found the ditch to be an earthen engineered conduit for irrigation water that originates from Deep Creek and ends in an isolated detention basin approximately 0.5 mile southwest of the project site. The ditch was found to not meet the three technical criteria of a wetland as determined by the 1987 USACE wetland delineation manual. Therefore, this ditch does not meet the jurisdictional requirements of the USACE. Nor does it meet the jurisdictional requirements of CDFW or RWQCB.

3.0 IMPACTS AND MITIGATIONS

3.1 SIGNIFICANCE CRITERIA

Approval of general plans, area plans, and specific projects is subject to the provisions of CEQA. The purpose of CEQA is to assess the impacts of proposed projects on the environment before they are carried out. CEQA is concerned with the significance of a proposed project's impacts. For example, a proposed development project may require the removal of some or all of a site's existing vegetation. Animals associated with this vegetation could be destroyed or displaced. Animals adapted to humans, roads, buildings, pets, etc., may replace those species formerly occurring on the site. Plants and animals that are state and/or federally listed as threatened or endangered may be destroyed or displaced. Sensitive habitats such as wetlands and riparian woodlands may be altered or destroyed.

Whenever possible, public agencies are required to avoid or minimize environmental impacts by implementing practical alternatives or mitigation measures. According to Section 15382 of the CEQA Guidelines, a significant effect on the environment means a "substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic interest."

Specific project impacts to biological resources may be considered "significant" if they would:

- 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.

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

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

- 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.

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Furthermore, CEQA Guidelines Section 15065(a) states that a project may trigger the requirement to make "mandatory findings of significance" if the project has 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, reduce the number or restrict the range of an endangered, rare or threatened species, or eliminate important examples of the major periods of California history or prehistory."

3.2 RELEVANT GOALS, POLICIES, AND LAWS

3.2.1 Threatened and Endangered Species

State and federal "endangered species" legislation has provided the CDFW and the USFWS with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Species listed as threatened or endangered under provisions of the state and federal endangered species acts, candidate species for such listing, state species of special concern, and some plants listed as endangered by the California Native Plant Society are collectively referred to as "species of special status." Permits may be required from both the CDFW and USFWS if activities associated with a proposed project will result in the "take" of a listed species. "Take" is defined by the state of California as "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill" (California Fish and Game Code, Section 86). "Take" is more broadly defined by the federal Endangered Species Act to include "harm" (16 USC, Section 1532(19), 50 CFR, Section 17.3). Furthermore, the CDFW and the USFWS are responding agencies under CEQA. Both agencies review CEQA documents in order to determine the adequacy of their treatment of endangered species issues and to make project-specific recommendations for their conservation.

3.2.2 Migratory Birds

State and federal laws also protect most birds. The Federal Migratory Bird Treaty Act (16 U.S.C., scc. 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs.

3.2.3 Birds of Prey

Birds of prey are also protected in California under provisions of the State Fish and Game Code, Section 3503.5, which states that it is "unlawful to take, possess, or destroy any birds in the order *Falconiformes* or *Strigiformes* (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFW.

3.2.4 Wetlands and Other Jurisdictional Waters

Natural drainage channels and adjacent wetlands may be considered "Waters of the United States" (hereafter referred to as "jurisdictional waters") subject to the jurisdiction of the USACE. The extent of jurisdiction has been defined in the Code of Federal Regulations but has also been subject to interpretation of the federal courts. Jurisdictional waters generally include:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.
- All interstate waters including interstate wetlands.
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce.
- All impoundments of waters otherwise defined as waters of the United States under the definition.
- Tributaries of waters identified in the bulleted items above.

As determined by the United States Supreme Court in its 2001 *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (SWANCC) decision, channels and wetlands isolated from other jurisdictional waters cannot be considered jurisdictional on the basis of their use, hypothetical or observed, by migratory birds. Similarly, in its 2006 consolidated *Carabell/Rapanos* decision, the U.S. Supreme Court ruled that a significant nexus between a wetland and other navigable waters must exist for the wetland itself to be considered a navigable and therefore jurisdictional water.

The USACE regulates the filling or grading of jurisdictional waters under the authority of Section 404 of the Clean Water Act. The extent of jurisdiction within drainage channels is defined by "ordinary high water marks" on opposing channel banks. All activities that involve the discharge of fill into jurisdictional waters are subject to the permit requirements of the USACE. Such permits are typically issued on the condition that the applicant agrees to provide mitigation that result in no net loss of wetland functions or values. No permit can be issued until the RWQCB issues a certification (or waiver of such certification) that the proposed activity will meet state water quality standards.

The filling of isolated wetlands, over which the USACE has disclaimed jurisdiction, is regulated by the RWQCB. It is unlawful to fill isolated wetlands without filing a Notice of Intent with the RWQCB. The RWQCB is also responsible for enforcing National Pollution Discharge Elimination System (NPDES) permits, including the General Construction Activity Storm Water Permit. All projects requiring federal money must also comply with Executive Order 11990 (Protection of Wetlands).

CDFW has jurisdiction over the bed and bank of natural drainages and lakes according to provisions of Section 1601 and 1602 of the California Fish and Game Code (2003). Activities that would disturb these waters are regulated by the CDFW via a Streambed Alteration Agreement. Such an agreement typically stipulates that certain measures will be implemented which protect the habitat values of impacted drainages, lakes, or ponds.

3.2.5 Local Ordinances and Policies

The "Biological Resource" element of the Tulare County General Plan 2030 Update addresses County policies towards these resources. The County's goals are to protect rare and endangered species through compatible land use development, protect riparian areas through habitat preservation, designation as open space or recreational land uses, bank stabilization, and development controls, and manage wetlands and riparian plant communities for passive recreation, groundwater recharge, and wildlife habitats.

3.3 POTENTIALLY SIGNIFICANT PROJECT IMPACTS/MITIGATION

The project considered in this evaluation of impacts to biological resources is the expansion of the Tulare County Road Yard onto approximately 19.5 acres adjacent on the south side of the current Road yard. The following impact analysis assumes all 19.5 acres will be permanently impacted by project development.

3.3.1 Disturbance to Active Migratory Bird Nests

Potential Impacts. The site provides nesting habitat for a few ground nesting birds such as the killdeer and western meadowlark. Native migratory birds are protected by the federal Migratory Bird Treaty Act. If birds were to nest on the project site prior to construction, project-related activities could result in the abandonment of active nests or direct mortality to these birds. Such an activity would constitute a violation of state and federal laws (see Sections 3.2.2 and 3.2.3) and would be considered a significant impact under CEQA.

Mitigation. In order to minimize construction disturbance to active migratory bird nests, the applicant will implement one or more of the following measure(s) as necessary, prior to project construction:

> ***Mitigation 3.3.1a (avoidance).*** In order to avoid impacts to all nesting migratory birds initial ground disturbance activities such as grading, scraping, material stockpiling, etc. will occur between September 1 and January 31. This will ensure that construction does not coincide with the nesting season (February 1 to August 31).
>
> ***Mitigation 3.3.1b (pre-construction surveys).*** If ground disturbance must be initiated between February 1 and August 31, a qualified biologist will conduct pre-construction surveys for active migratory bird nests within 15 days of the onset of these activities.

Mitigation 3.3.1c (establish buffers). Should any active nests be discovered in or near proposed construction zones, the biologist will identify a suitable construction-free buffer around the nest. This buffer will be identified on the ground with flagging or fencing, and will be maintained until the biologist has determined that the young have fledged.

Implementation of the above measures will ensure future development of the project site will have no impact on migratory birds and that the project will be in compliance with state and federal laws protecting nesting birds.

3.4 LESS THAN SIGNIFICANT PROJECT IMPACTS

3.4.1 Loss of Habitat for Special Status Plants

Potential Impacts. Twelve special status vascular plant species are known to occur in the vicinity of the project site (see Table 1). These plant species are absent from the site due to historic and current land use practices. Therefore, the proposed project would have no impact on regional populations of these special status plant species.

Mitigation. Mitigation measures are not warranted.

3.4.2 Loss of Habitat or Direct Impact to Special Status Animals Absent or Unlikely to Occur on the Site

Potential Impacts. Of the 16 special status animal species potentially occurring in the region, 12 species would be absent or unlikely to occur on the site due to unsuitable habitat conditions created by current land use practices. These include the vernal pool fairy shrimp, vernal pool tadpole shrimp, valley elderberry longhorn beetle, California tiger salamander, blunt-nosed leopard lizard, Swainson's hawk, Tipton kangaroo rat, San Joaquin kit fox, western spadefoot, western pond turtle, burrowing owl, and American badger. Since there is little to no likelihood that these species would use the site, disturbance from future development of the project site would have no effect on these species.

Mitigation. No loss of habitat or direct impact to these special status animals would occur; therefore, no mitigations are warranted.

3.4.3 Loss of Breeding, Nesting, Roosting, or Denning Habitat for Special Status Animals

Potential Impacts. Breeding, nesting, roosting, or denning habitat for special status animals is absent from the project site. As a result there will be no impacts to these resources.

Mitigation. Mitigation is not warranted.

3.4.4 Loss of Habitat for Special Status Animals that may Occur on the Site as Occasional or Regular Foragers but Breed Elsewhere

Four species may occasionally utilize the site for foraging. These species include the loggerhead shrike, tricolored blackbird, pallid bat, and western mastiff bat. The project site does not provide regionally important foraging habitat for these species. Considerable habitat suitable for foraging will continue to be available for these species on other lands within the region following development of the project. Furthermore, the project is not expected to result in direct harm to any individuals of these species, as nesting and roosting habitat for these species is absent from the project site. Therefore, project development will result in a less than significant impact to these species.

Mitigation. The loss of foraging habitat for special status animals is considered a less than significant impact and the project will not result in direct harm to individuals of these species. Therefore, no mitigations are warranted.

3.4.5 Project Impacts to Fish or Wildlife Movement Corridors

Potential Impacts. The project site contains no geographic elements characteristic of a movement corridor (i.e. ridge tops, drainages, riparian corridors, etc.) and does not serve as a fish or wildlife movement corridor.

Mitigation. Because this project will result in no effect on regional fish or wildlife movements, mitigation measures are not warranted.

3.4.6 Disturbance to Riparian Habitat or other Sensitive Habitats

Potential Impacts. No riparian or sensitive habitats occur on or adjacent to the project site.

Mitigation. Mitigations are not warranted.

3.4.7 Disturbance to Waters of the United States

Potential Impacts.

As discussed in Section 2.5, the onsite irrigation ditch does not meet the jurisdictional requirements of the USACE or CDFW, or RWQCB. Therefore, impacts to Waters of the U.S. are absent from the project site

Mitigation. Waters of the U.S. are absent from the project site; no mitigation is required.

3.4.8 Local Policies or Habitat Conservation Plans

Potential Impacts. All future development within the project area would be in compliance with the provisions of Tulare County General Plan polices related to biological resources. No known Habitat Conservation Plans are in effect for the area.

Mitigation. No mitigations are warranted.

4.0 LITERATURE REFERENCED OR CITED

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APPENDIX A: VASCULAR PLANTS OF THE PROJECT SITE

APPENDIX A: VASCULAR PLANTS OF THE PROJECT SITE

The plants species listed below were observed on the Tulare County Road Yard Expansion site during surveys conducted by Live Oak Associates, Inc. on October 1, 2013. The U.S. Fish and Wildlife Service wetland indicator status of each plant has been shown following its common name.

OBL - Obligate
FACW - Facultative Wetland
FAC - Facultative
FACU - Facultative Upland
UPL - Upland
+/- - Higher/lower end of category
NR - No review
NA - No agreement
NI - No investigation

AMARANTHACEAE – Pigweed Family		
Amaranthus albus	Tumble Pigweed	FACU
Amaranthus retroflexis	Redroot Pigweed	FACU
ASTERACEAE – Sunflower Family		
Ambrosia acanthicarpa	Annual Burrweed	UPL
Conyza bonariensis	Horseweed	UPL
Helianthus annuus	Annual Sunflower	FAC-
Lactuca serriola	Prickly Lettuce	UPL
BORAGINACEAE - Borage Family		
Amsinckia sp.	Fiddleneck	UPL
BRASSICACEAE – Mustard Family		
Sisymbrium irio	London Rocket	UPL
CHENOPODIACEAE – Goosefoot Family		
Salsola tragus	Russian Thistle	FACU+
CYPERACEAE – Sedge Family		
Cyperus sp.	Nutsedge	-
EUPHORBIACEAE – Spurge Family		
Chamaesyce prostrata	Prostrate Sandmat	FACU
POACEAE – Grass Family		
Avena sp.	Oat	UPL
Bromus diandrus	Ripgut Brome	UPL
Bromus hordeaceus	Soft Chess	FACU-
Cynodon dactylon	Bermuda Grass	FAC
Echinochloa crus-galli	Watergrass	FACW
Hordeum murinum ssp. *leporinum*	Barnyard Barley	NI
Leptochloa uninervia	Sprangletop	FACW
SOLANACEAE – Nightshade Family		
Datura wrightii	Jimsonweed	UPL

APPENDIX B: TERRESTRIAL VERTEBRATE SPECIES THAT POTENTIALLY OCCUR ON THE PROJECT SITE

APPENDIX B: TERRESTRIAL VERTEBRATE SPECIES THAT POTENTIALLY OCCUR ON THE PROJECT SITE

The species listed below are those that may reasonably be expected to use the habitats of the project site routinely or from time to time. The list was not intended to include birds that are vagrants or occasional transients. Terrestrial vertebrate species observed in or adjacent to the Tulare County Road Yard Expansion site during surveys conducted by Live Oak Associates, Inc. on October 1, 2013 have been noted with an asterisk.

CLASS: AMPHIBIA (Amphibians)
ORDER: SALIENTIA (Frogs and Toads)
FAMILY: HYLIDAE (Treefrogs and relatives)
Pacific Chorus Frog (*Pseudacris regilla*)

CLASS: REPTILIA (Reptiles)
ORDER: SQUAMATA (Lizards and Snakes)
SUBORDER: SAURIA (Lizards)
FAMILY: PHRYNOSOMATIDAE
Side-blotched lizard (*Uta stansberiana*)
SUBORDER: SERPENTES (Snakes)
FAMILY: COLUBRIDAE (Colubrids)
Gopher Snake (*Pituophis melanoleucus*)
Common Kingsnake (*Lampropeltis getulus*)

CLASS: AVES (Birds)
ORDER: CICONIIFORMES (Herons, Storks, Ibises and Relatives)
FAMILY: ARDEIDAE (Herons and Bitterns)
Great Blue Heron (*Ardea herodias*)
Great Egret (*Ardea alba*)
Snowy Egret (*Egretta thula*)
ORDER: FALCONIFORMES (Vultures, Hawks, and Falcons)
FAMILY: ACCIPITRIDAE (Hawks, Old World Vultures, and Harriers)
Red-tailed Hawk (*Buteo jamaicensis*)
FAMILY: FALCONIDAE (Caracaras and Falcons)
American Kestrel (*Falco sparverius*)
ORDER: CHARADRIIFORMES (Shorebirds, Gulls, and relatives)
FAMILY: CHARADRIIDAE (Plovers and relatives)
Killdeer (*Charadrius vociferus*)
ORDER: COLUMBIFORMES (Pigeons and Doves)
FAMILY: COLUMBIDAE (Pigeons and Doves)
Rock Pigeon (*Columba livia*)
Eurasian Collared Dove (*Streptopelia decaocto*)
Mourning Dove (*Zenaida macroura*)
ORDER: APODIFORMES (Swifts and Hummingbirds)
ORDER: PASSERIFORMES (Perching Birds)

FAMILY: TYRANNIDAE (Tyrant Flycatchers)
Black Phoebe (*Sayornis nigricans*)
*Say's Phoebe (*Sayornis saya*)
Western Kingbird (*Tyrannus verticalis*)
FAMILY: CORVIDAE (Jays, Magpies, and Crows)
*Western Scrub Jay (*Aphelocoma coerulescens*)
*American Crow (*Corvus brachyrhynchos*)
Common Raven (*Corvus corax*)
FAMILY: HIRUNDINIDAE (Swallows)
Cliff Swallow (*Hirundo pyrrhonota*)
FAMILY: MIMIDAE (Mockingbirds and Thrashers)
Northern Mockingbird (*Mimus polyglottos*)
FAMILY: STURNIDAE (Starlings)
European Starling (*Sturnus vulgaris*)
FAMILY: MOTACILLIDAE (Wagtails and Pipits)
American Pipit (*Anthus rubescens*)
FAMILY: PARULIDAE (Wood Warblers and Relatives)
Yellow-rumped Warbler (*Dendroica coronata*)
FAMILY: EMBERIZIDAE (Wood Warblers, Sparrows, Blackbirds, and relatives)
Savannah Sparrow (*Passerculus sandwichensis*)
*White-crowned Sparrow (*Zonotrichia leucophrys*)
FAMILY: ICTERIDAE (Blackbirds, Orioles and Allies)
Tricolored Blackbird (*Agelaius tricolor*)
Red-winged Blackbird (*Agelaius phoeniceus*)
Brewer's Blackbird (*Euphagus cyanocephalus*)
FAMILY: PASSERIDAE (Old World Sparrows)
*Lesser Goldfinch (*Carduelis psaltria*)
*House Finch (*Carpodacus mexicanus*)
House Sparrow (*Passer domesticus*)

CLASS: MAMMALIA (Mammals)
ORDER: DIDELPHIMORPHIA (Marsupials)
FAMILY: DIDELPHIDAE (Opossums)
Virginia Opossum (*Didelphis virginiana*)
ORDER: CHIROPTERA (Bats)
FAMILY: PHYLLOSTOMIDAE (Leaf-nosed Bats)
Southern Long-nosed Bat (*Leptonycteris curasoae*)
FAMILY: VESPERTILIONIDAE (Evening Bats)
Yuma Myotis (*Myotis yumanensis*)
California Myotis (*Myotis californicus*)
Western Pipistrelle (*Pipistrellus hesperus*)
Big Brown Bat (*Eptesicus fuscus*)
Western Red Bat (*Lasiurus borealis*)
Hoary Bat (*Lasiurus cinereus*)
Pallid Bat (*Antrozous pallidus*)

FAMILY: MOLOSSIDAE (Free-tailed Bat)
Western Mastiff Bat (*Eumops perotis* ssp. *californicus*)
Brazilian Free-tailed Bat (*Tadarida brasiliensis*)
ORDER: LAGOMORPHA (Rabbits, Hares, and Pikas)
FAMILY: LEPORIDAE (Rabbits and Hares)
*Audubon cottontail rabbit (*Sylvilagus audubonii*)
ORDER: RODENTIA (Rodents)
FAMILY: SCIURIDAE (Squirrels, Chipmunks, and Marmots)
California Ground Squirrel (*Otospermophilus beecheyi*)
FAMILY: GEOMYIDAE (Pocket Gophers)
*Botta's Pocket Gopher (*Thomomys bottae*)
FAMILY: MURIDAE (Old World Rats and Mice)
Western Harvest Mouse (*Reithrodontomys megalotis*)
Deer Mouse (*Peromyscus maniculatus*)
House Mouse (*Mus musculus*)
California Vole (*Microtus californicus*)
ORDER: CARNIVORA (Carnivores)
FAMILY: CANIDAE (Foxes, Wolves, and relatives)
Coyote (*Canis latrans*)
Feral Dog (*Canis lupus familiaris*)
FAMILY: PROCYONIDAE (Raccoons and relatives)
Raccoon (*Procyon lotor*)
FAMILY: MEPHITIDAE (Skunks)
Striped Skunk (*Mephitis mephitis*)

APPENDIX C: SELECTED SITE PHOTOGRAPHS

Photo 1: Ruderal field

Photo 2: North end of ruderal field was covered with gravel and stockpiled material.

Photo 3: Vegetated west end of the onsite irrigation ditch.

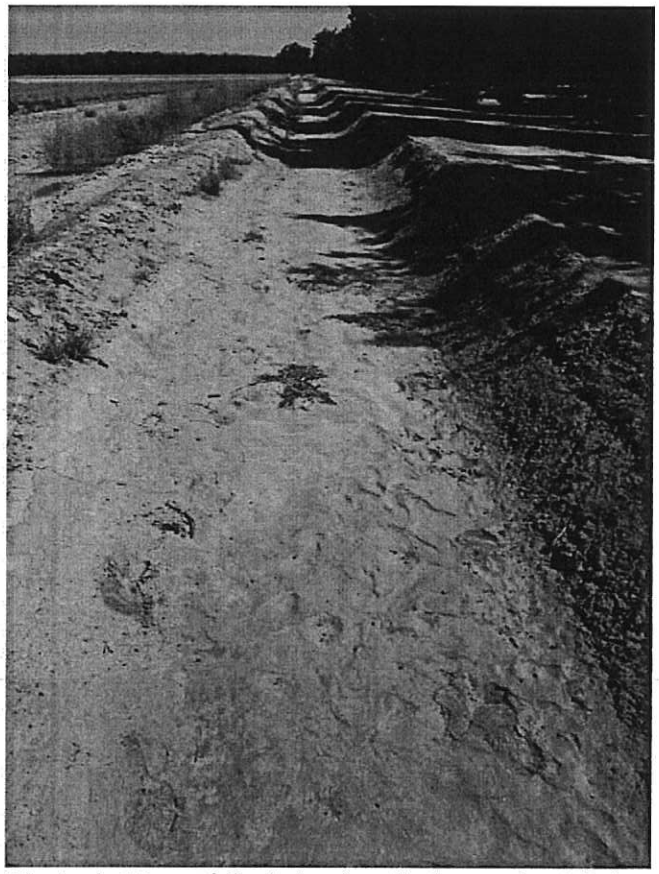
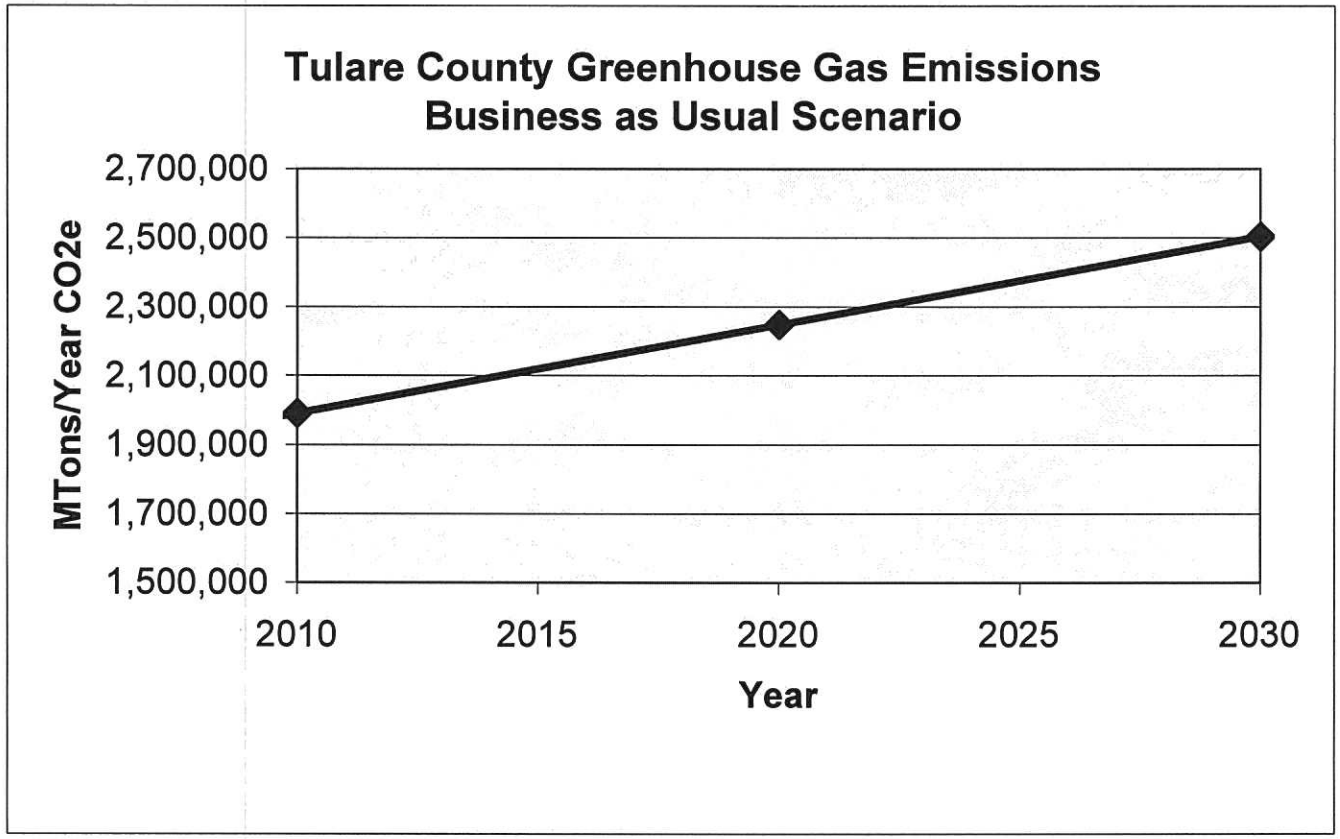


Photo 4: Most of the irrigation ditch contained little to no vegetation.

Appendix F
Traffic Impact Study

Appendix F
Traffic Impact Study


Tulare County Greenhouse Gas Emissions
Business as Usual Scenario
MTons/Year CO2e
2,700,000
2,500,000
2,300,000
2,100,000
1,900,000
1,700,000
1,500,000
2010
2015
2020
2025
2030
Year

Executive Summary

This Traffic Impact Study (TIS) has been prepared for the purpose of analyzing traffic conditions related to the proposed Tulare County Central Road Yard Project (Project). The Project includes the development of an expanded road yard facility, including a new Transit Operations and Maintenance Facility, a Fire Administration and Emergency Operations Center, a fast/slow fill Compressed Natural Gas (CNG) fueling facility, Road Maintenance equipment parking area, and Sheriff's Office evidence storage. The proposed Project is located within an unincorporated area of Tulare County at the southeast corner of the intersection of Road 140 and Avenue 256.

The Project site lies within the central portion of the San Joaquin Valley. The Project is located on the San Joaquin Valley (Valley) floor at an elevation of approximately 456 feet above sea level with the surrounding area mostly flat.

There will be six (6) access points to the proposed Project. There are three (3) existing driveways along Avenue 256 that will serve as Project access points and there are three (3) proposed driveways along Road 140 that will provide access to the proposed Project. All access points will be located in accordance with Tulare County standards and specifications.

This report includes analysis of the following intersections:

- Road 140 / Caldwell Avenue
- Road 140 / Avenue 256
- Road 140 / SR 137 (Avenue 232)
- SR 63 (Mooney Boulevard) / Avenue 256
- Project Driveway(s) / Avenue 256
- Road 140 / Project Driveway(s)

This report includes analysis of the following roadway segments:

- Road 140 between:
  - Caldwell Avenue and Avenue 256
  - Avenue 256 and SR 137 (Avenue 232)
- Avenue 256 between:
  - SR 63 (Mooney Boulevard) and Road 140
  - Road 140 and Road 152

The study time periods include the weekday AM and PM peak hours determined between 7:00 and 9:00 AM and between 4:00 and 6:00 PM. The peak hours were analyzed for the following conditions:

- Existing 2013 Conditions
- Existing 2013 Plus Project Conditions
- Existing Plus Project Plus Cumulative (Near-Term)
- Cumulative 2040 Without Project Conditions

- Cumulative 2040 With Project Conditions

Generally-accepted traffic engineering principles and methods were employed to estimate the amount of traffic expected to be generated by the Project and to analyze the traffic conditions expected to exist in the future. The conclusion of this traffic impact study is that the existing road network is generally either adequate or can be mitigated to accommodate the proposed development through the year 2040. The traffic impact analyses based on projections of cumulative and future traffic volumes through the year 2040 result in the conclusions and recommendations described below.

IMPACTS

Intersections

Results of the LOS intersection analysis along the street and highway system in the project area from Existing through the Cumulative 2040 Plus Project scenario are reflected in Table E-1. Table E-1 shows the intersections that are expected to fall short of desirable operating conditions for various scenarios. Of the ten (10) studied intersections, four (4) will exceed the level of service standard under the Cumulative 2040 With and Without Project scenarios.

Segments

Results of the LOS segment analysis along the street and highway system in the project area from Existing through the Cumulative 2040 With Project scenario are reflected in Table E-2.Table E-2 shows the roadway segments that are expected to fall short of desirable operating conditions for various scenarios. All but one of the roadway segments analyzed as part of this TIS are expected to exceed the level of service standard under the Cumulative 2040 With and Without Project scenarios.

TABLE E-1

Intersection Operations

INTERSECTION	CONTROL	PEAK HOUR	EXISTING 2013		EXISTING PLUS PROJECT		NEAR-TERM (YEAR 2016)		CUMULATIVE 2040 WITHOUT PROJECT		CUMULATIVE 2040 WITH PROJECT	
			DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
1. Road 140 / Caldwell Avenue	Signalized	AM	22.8	C	22.8	C	26.7	C	**72.9**	E	**73.1**	E
		PM	31.9	C	32.1	C	36.3	D	**139.2**	F	**141.9**	F
2. SR 63 / Avenue 256	Two-Way Stop Sign	AM	**97.0**	F*	**127.0**	F*	16.4	B	**71.8**	E	**76.3**	E
		PM	**73.0**	F*	**102.0**	F*	14.9	B	**135.0**	F	**140.6**	F
3. Road 140 / Avenue 256	Signalized	AM	22.9	C	25.7	C	28.3	C	**84.4**	F	**91.0**	F
		PM	17.6	B	17.6	B	19.5	B	**56.4**	E	**58.5**	E
4. Road 140 / SR 137	Signalized	AM	33.6	C	34.7	C	**44.3**	D	**471.8**	F	**474.8**	F
		PM	34.8	C	**36.0**	D	**43.6**	D	**459.7**	F	**461.3**	F
5. Driveway 1 / Avenue 256	One-Way Stop Sign	AM	11.3	B	11.3	B	11.7	B	14.1	B	14.1	B
		PM	10.1	B	10.1	B	10.4	B	12.7	B	12.7	B
6. Driveway 2 / Avenue 256	One-Way Stop Sign	AM	9.7	A	9.8	A	10.0	A	11.0	B	11.1	B
		PM	9.6	A	9.6	A	9.9	A	11.5	B	11.5	B
7. Driveway 3 / Avenue 256	One-Way Stop Sign	AM	11.6	B	11.7	B	12.3	B	16.5	C	16.5	C
		PM	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A
8. Road 140 / Driveway 4	One-Way Stop Sign	AM			11.2	B	11.6	B			18.4	C
		PM			11.1	B	11.6	B			16.0	C
9. Road 140 / Driveway 5	One-Way Stop Sign	AM			11.8	B	12.5	B			22.3	C
		PM			11.6	B	12.2	B			18.2	C
10. Road 140 / Driveway 6	One-Way Stop Sign	AM			12.7	B	13.5	B			26.7	D
		PM			12.0	B	12.7	B			19.8	C

DELAY is measured in seconds

LOS = Level of Service / BOLD denotes LOS standard has been exceeded

For signalized and all-way stop controlled intersections, delay results show the average for the entire intersection. For one-way and two-way stop controlled intersections, delay results show the delay for the worst movement.

* Meets Peak Hour Signal Warrant. A traffic signal will be contructed at this site in the near future.

TABLE E-2

Street Segment Operations

SEGMENT	DESCRIPTION	PEAK HOUR	EXISTING 2013		EXISTING PLUS PROJECT		NEAR-TERM (YEAR 2016)		CUMULATIVE 2040 WITHOUT PROJECT		CUMULATIVE 2040 WITH PROJECT	
			VOLUME	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME	LOS
1. Road 140: Caldwell Avenue to Avenue 256	Two-lane Undivided	AM	797	D	817	D	905	D	**1,553**	F	**1,573**	F
		PM	835	D	853	D	**970**	E	**1,831**	F	**1,850**	F
2. Road 140: Avenue 256 to SR 137	Two-Lane Undivided	AM	743	D	793	D	865	D	**1,227**	F	**1,277**	F
		PM	610	C	654	C	732	D	**1,071**	F	**1,115**	F
3. Avenue 256: SR 63 to Road 140	Two-Lane Undivided	AM	215	C	242	C	332	C	**1,052**	F	**1,079**	F
		PM	157	C	181	C	266	C	**1,042**	F	**1,066**	F
4. Avenue 256: SR 63 to Road 140	Two-Lane Undivided	AM	446	C	449	C	505	C	868	D	871	D
		PM	370	C	372	C	444	C	874	D	876	D

LOS = Level of Service / BOLD denotes LOS standard has been exceeded

MITIGATION

This section describes potential improvements to mitigate the traffic impacts of the Project. Described below are potential improvements at study area intersections and segments for various scenarios that would result in acceptable levels of service. In order to mitigate the Project's impacts, it is recommended that the Project contribute traffic impact fees, as determined by Tulare County in accordance with County policy. The payment of these fees would mitigate the Project's traffic impacts to insignificant levels.

EXISTING PLUS PROJECT CONDITIONS

For this scenario, the following improvements are recommended:

Road 140 at SR 137

- Widen the westbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 right turn lane).

NEAR-TERM (YEAR 2016) CONDITIONS

For this scenario, the following improvements are recommended:

Road 140 at SR 137

- Widen the southbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 right turn lane).
- Widen the westbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 right turn lane).

Road 140 between Caldwell Avenue and Avenue 256

- Widen the roadway segment from 2 travel lanes to 4 travels (adding 2 travel lanes)

CUMULATIVE 2040 WITHOUT PROJECT CONDITIONS

For this scenario, the following improvements are recommended:

Road 140 at Caldwell Avenue

- Widen the northbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane (adding 1 right turn lane).
- Widen the southbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane (adding 1 right turn lane).
- Widen the eastbound approach to 2 left turn lanes, 2 through lanes, and 1 right turn lane (adding 1 left turn lane and 1 right turn lane).
- Widen the westbound approach to 2 left turn lanes, 2 through lanes, and 1 right turn lane (adding 1 left

turn lane and 1 right turn lane).

SR 63 at Avenue 256

- Widen the northbound approach to 2 left turn lanes, 2 through lanes, and 1 right turn lane (adding 1 left turn lane and 1 right turn lane).
- Widen the southbound approach to 2 left turn lanes, 3 through lanes, and 1 right turn lane (adding 1 left turn lane, 1 through lane, and 1 right turn lane).
- Widen the eastbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 left turn lane and 1 right turn lane).
- Widen the westbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 left turn lane and 1 right turn lane).

Road 140 at Avenue 256

- Widen the southbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 right turn lane).
- Widen the westbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 right turn lane).

Road 140 at SR 137

- Widen the northbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 right turn lane).
- Widen the southbound approach to 2 left turn lanes, 1 through lane, and 1 right turn lane (adding 1 left turn lane and 1 right turn lane).
- Widen the eastbound approach to 1 left turn lane, 3 through lanes, and 1 right turn lane (adding 2 through lanes and 1 right turn lane).
- Widen the westbound approach to 1 left turn lane, 3 through lanes, and 1 right turn lane (adding 2 through lanes and 1 right turn lane).

Road 140 between Caldwell Avenue and Avenue 256

- Widen the roadway segment from 2 travel lanes to 4 travels (adding 2 travel lanes)

Road 140 between Avenue 256 and SR 137

- Widen the roadway segment from 2 travel lanes to 4 travels (adding 2 travel lanes)

Avenue 256 between SR 63 and Road 140

- Widen the roadway segment from 2 travel lanes to 4 travels (adding 2 travel lanes)

CUMULATIVE 2040 WITH PROJECT CONDITIONS

For this scenario, the following additional improvements are recommended:

Road 140 at SR 137

- Widen the northbound approach to 2 left turn lanes, 1 through lane, and 1 right turn lane (adding 1 left turn lane and 1 right turn lane).

POST-MITIGATION LEVEL OF SIGNIFICANCE

The level of service resulting from the potential improvements identified above is shown in Table E-1 for study area intersections and Table E-2 for study segments. The post-mitigation result, once mitigation is implemented, would be less than significant. The resulting Cumulative 2040 lane geometry is shown in Figure E-1.

TABLE E-3

Intersection Operations With Mitigation

INTERSECTION	CONTROL	PEAK HOUR	EXISTING PLUS PROJECT		NEAR-TERM (YEAR 2016)		CUMULATIVE 2040 WITHOUT PROJECT		CUMULATIVE 2040 WITH PROJECT	
			DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
1. Road 140 / Caldwell Avenue	Signalized	AM					48.2	D	48.2	D
		PM					50.7	D	51.0	D
2. SR 63 / Avenue 256	Signalized	AM					31.9	C	32.2	C
		PM					30.6	C	30.8	C
3. Road 140 / Avenue 256	Signalized	AM					45.7	D	47.3	D
		PM					36.8	D	37.8	D
4. Road 140 / SR 137	Signalized	AM	29.3	C	32.4	C	34.4	C	34.7	C
		PM	30.0	C	35.0	C	34.9	C	34.5	C

DELAY is measured in seconds

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

For signalized and all-way stop controlled intersections, delay results show the average for the entire intersection. For one-way and two-way stop controlled intersections, delay results show the delay for the

TABLE E-4

Segment Operations With Mitigation

SEGMENT	DESCRIPTION	PEAK HOUR	NEAR-TERM (YEAR 2016)		CUMULATIVE 2040 WITHOUT PROJECT		CUMULATIVE 2040 WITH PROJECT	
			VOLUME	LOS	VOLUME	LOS	VOLUME	LOS
1. Road 140: Caldwell Avenue to Avenue 256	Four-Lane Divided	AM	905	C	1,553	C	1,573	C
		PM	970	C	1,831	C	1,850	C
2. Road 140: Avenue 256 to SR 137	Four-Lane Divided	AM			1,227	C	1,277	C
		PM			1,071	C	1,115	C
3. Avenue 256: SR 63 to Road 140	Four-Lane Divided	AM			1,052	C	1,079	C
		PM			1,042	C	1,066	C

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

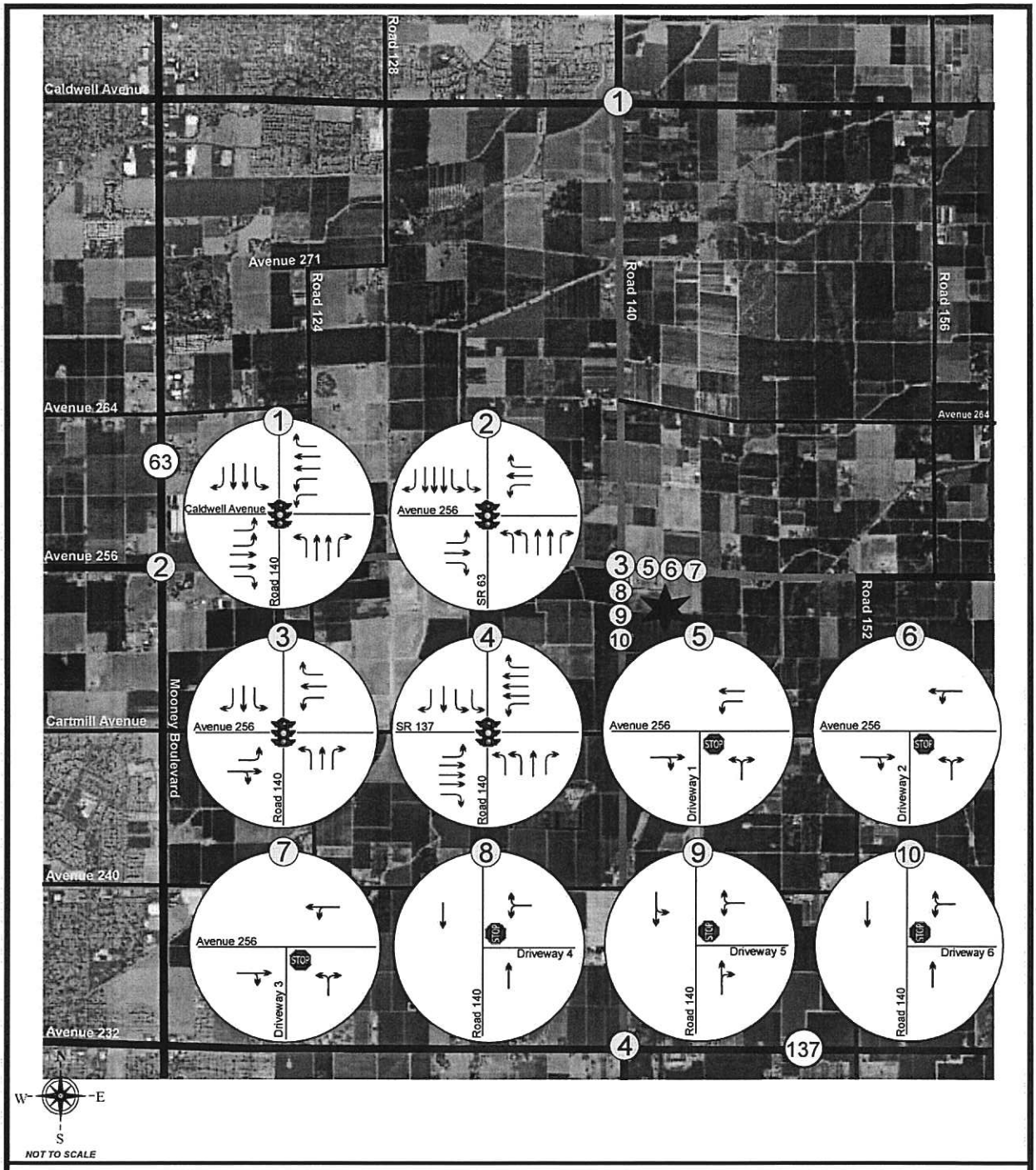


FIGURE E-1

Cumulative 2040 Lane Geometry

LEGEND

★	Project Site		Traffic Signal	(#)	Study Intersections
⤴	Mitigation		Stop Sign	▬	Study Segments

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This Traffic Impact Study (TIS) has been prepared for the purpose of analyzing traffic conditions related to the proposed Tulare County Central Road Yard Project (Project). The Project includes the development of an expanded road yard facility, including a new Transit Operations and Maintenance Facility, a Fire Administration and Emergency Operations Center, a fast/slow fill Compressed Natural Gas (CNG) fueling facility, Road Maintenance equipment parking area, and Sheriff's Office evidence storage. The proposed Project is located within an unincorporated area of Tulare County at the southeast corner of the intersection of Road 140 and Avenue 256.

1.0 Introduction

1.1 Description of the Region/Project

The Project site lies within the central portion of the San Joaquin Valley. The Project is located on the San Joaquin Valley (Valley) floor at an elevation of approximately 456 feet above sea level with the surrounding area mostly flat. Figures 1-1 and 1-2 show the location of the Project site along with major roadways and highways and study intersections and segments.

1.1.1 *Project Access*

There will be six (6) access points to the proposed Project. There are three (3) existing driveways along Avenue 256 that will serve as Project access points and there are three (3) proposed driveways along Road 140 that will provide access to the proposed Project. All access points will be located in accordance with Tulare County standards and specifications.

1.1.2 *Study Area*

The following intersections and roadway segments included in this TIS include:

Intersections

- Road 140 / Caldwell Avenue
- Road 140 / Avenue 256
- Road 140 / SR 137 (Avenue 232)
- SR 63 (Mooney Boulevard) / Avenue 256
- Project Driveway(s) / Avenue 256
- Road 140 / Project Driveway(s)

Roadway Segments

- Road 140 between:
  - Caldwell Avenue and Avenue 256
  - Avenue 256 and SR 137 (Avenue 232)
- Avenue 256 between:
  - SR 63 (Mooney Boulevard) and Road 140
  - Road 140 and Road 152

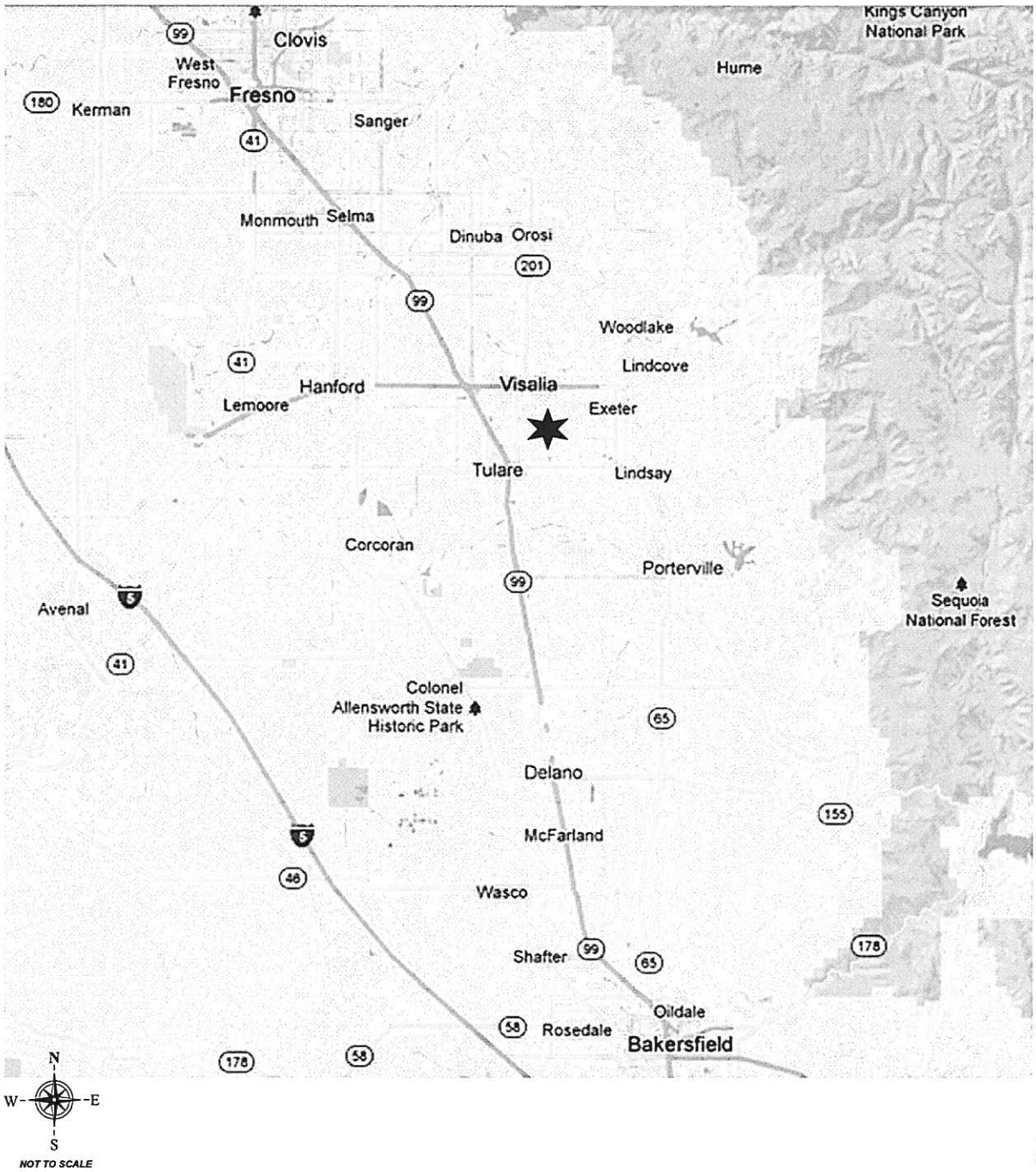

FIGURE 1-1

Regional Location

LEGEND

Project Location

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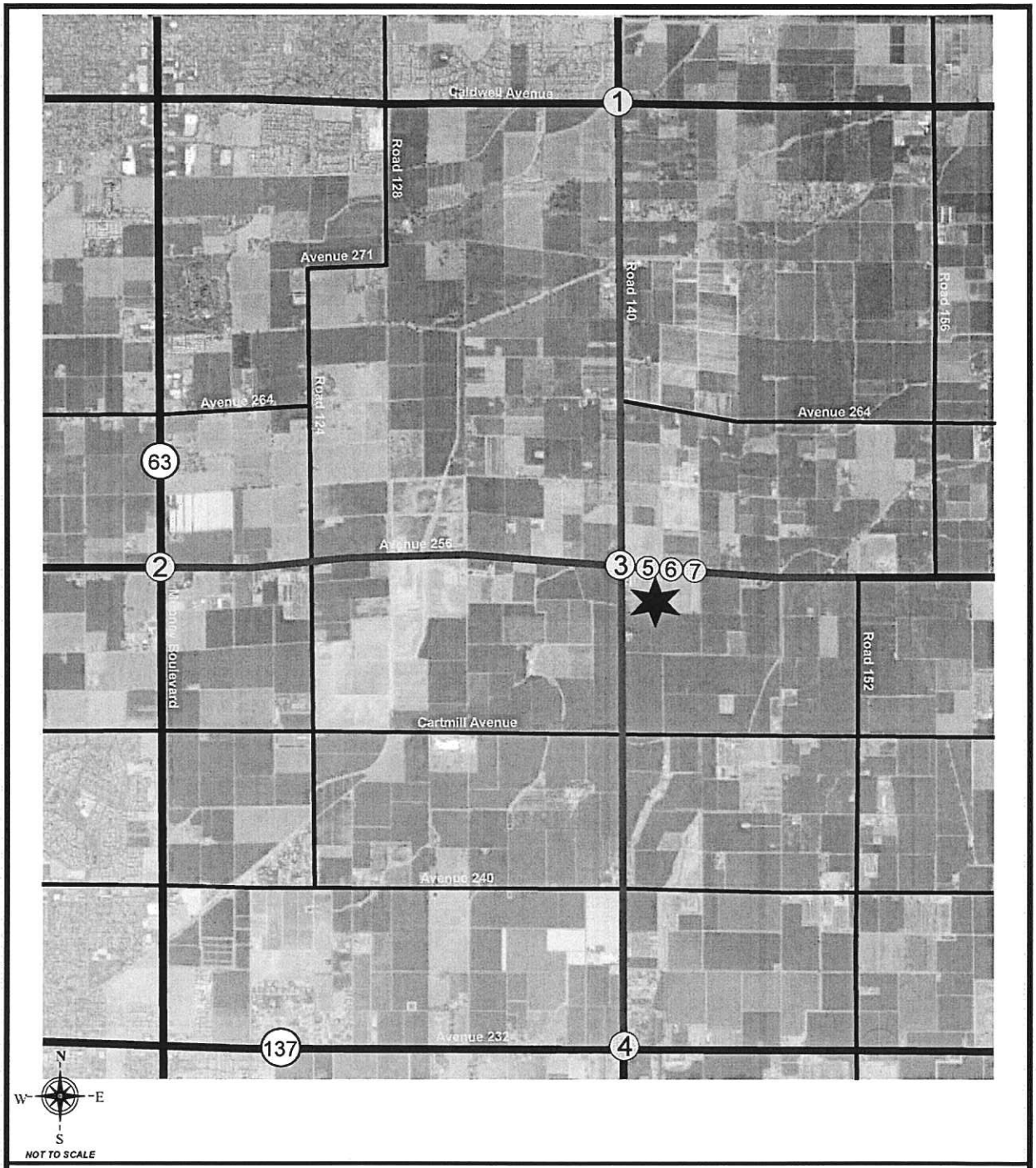

FIGURE 1-2

Project Location

LEGEND

★ Project Location (#) Study Intersections (Existing) ▬ Study Segments

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1.1.3 *Study Scenarios*

The TIS includes level of service (LOS) analysis for the following traffic scenarios:

- Existing 2013 Conditions
- Existing 2013 Plus Project Conditions
- Existing Plus Project Plus Cumulative (Near-Term)
- Cumulative 2040 Without Project Conditions
- Cumulative 2040 With Project Conditions

1.2 Methodology

When preparing a TIS, guidelines set by affected agencies are followed. In analyzing street and intersection capacities the level of service (LOS) methodologies are applied. LOS standards are applied by transportation agencies to quantitatively assess a street and highway system's performance. In addition, safety concerns are analyzed to determine the need for appropriate mitigation resulting from increased traffic near sensitive uses, the need for dedicated ingress and egress access lanes to the project, and other evaluations such as the need for signalized intersections or other improvements.

Intersection Level of Service

Intersection LOS analysis was conducted using the Synchro traffic signal timing program. Levels of Service can be determined for both signalized and unsignalized intersections. Three (3) of the existing study intersections are currently signalized, while four (4) are unsignalized and three (3) do not currently exist.

Tables 1-1 and 1-2 indicate ranges in the amounts of average delay for a vehicle at signalized and unsignalized intersections for the various levels of service including LOS "A" to "F".

The signalized LOS standards applied to calculate intersection LOS are in accordance with the current edition of the Highway Capacity Manual (HCM). Intersection turning movement counts and roadway geometrics used to develop LOS calculations were obtained from field review findings and count data provided from the traffic count sources identified in Section 2.1.

When an unsignalized intersection does not meet acceptable LOS standards, the investigation of the need for a traffic signal shall be evaluated. The California Manual on Uniform Traffic Control Devices for Streets and Highways dated January 13, 2012 (CMUTCD), introduces standards for determining the need for traffic signals. The CMUTCD indicates that the satisfaction of one or more traffic signal warrants does not in itself require the installation of a traffic signal. In addition to the warrant analysis, an engineering study of the current or expected traffic conditions should be conducted to determine whether the installation of a traffic signal is justified. The CMUTCD Peak Hour Warrant (Warrant 3) was used to determine if a traffic signal is warranted at unsignalized intersections that fall below current LOS standards.

Segment Level of Service

According to the HCM, LOS is categorized by two parameters of traffic: uninterrupted and interrupted flow. Uninterrupted flow facilities do not have fixed elements such as traffic signals that cause interruptions in traffic flow. Interrupted flow facilities do have fixed elements that cause an interruption in the flow of traffic,

such as stop signs and signalized intersections along arterial roads. A roadway segment is defined as a stretch of roadway generally located between signalized or controlled intersections.

Segment LOS is important in order to understand whether the capacity of a roadway can accommodate future traffic volumes. Table 1-3 provides a definition of segment LOS. The performance criteria used to evaluate volumes and capacities on the road and highway systems for this study were estimated using the Modified HCM-Based LOS Tables (Florida Tables) adjusted to reflect conditions in Tulare County. The tables consider the capacity of individual road and highway segments based on numerous roadway variables (design speed, passing opportunities, signalized intersections per mile, number of lanes, saturation flow, etc.). These variables were identified and applied to reflect segment LOS conditions. Additional information is included in Appendix A.

1.3 Policies to Maintain Level of Service

An important goal is to maintain acceptable levels of service along the highway, street, and road network. To accomplish this, Tulare County, the City of Visalia, and Caltrans adopt minimum levels of service in an attempt to control congestion that may result as new development occurs.

Tulare County's 2030 General Plan, policy number TC-1.16, identifies a minimum LOS standard of "D" on the County roadway system (both segments and intersections).

The City of Visalia's General Plan, Goal Objective 1.1.3, identifies a minimum LOS standard of "D" along all major roadways and intersections in the City.

Caltrans identifies' a target LOS at the transition between LOS "C" and LOS "D", according to information specified in the Caltrans, "A Guide For Traffic Impact Studies".

Given the LOS standards of the various agencies in the Project area, the goal of the Project is to provide LOS results that meet the minimum LOS "D" for Tulare County and City of Visalia intersections and segments and LOS "C" for Caltrans intersections and segments.

Table 1-4 shows the General Plan target LOS for each intersection based upon its jurisdictional location and Figure 1-3 shows the location of the study intersections and their corresponding target LOS.

1.4 Agency Responsibilities and Regional Transportation Planning

Transportation planning and transportation system operations and management in the Project area is the responsibility of three public agencies: Tulare County, the City of Visalia, and Caltrans. Each of the agencies has specific responsibilities and jurisdictional limits, which are defined below.

1.4.1 *Tulare County*

The Transportation and Circulation Element of the Tulare County General Plan guides the continued development and improvement of the circulation system to support existing and planned development. The Circulation Element addresses the circulation improvements needed to provide adequate capacity for future land uses. The Element establishes a hierarchy of transportation routes with typical development standards

described for each roadway category. The County also includes additional standards, plans and programs that apply to the evaluation of transportation impacts of the Project. These standards cover the primary aspects of the transportation system

1.4.2 *City of Visalia*

The City of Visalia completed an update of its General Plan in April of 2001, including the Circulation Element. A number of issues, goals, policies, and implementation strategies are included in the General Plan Circulation Element. The City is in the process of updating its General Plan, but the update has not been adopted as of the date of this TIS.

1.4.3 *California Department of Transportation (Caltrans)*

The California Department of Transportation (Caltrans) is responsible for planning, designing, building, operating, and maintaining California's State highway system, including rail and mass transit. Within the Project study area, Caltrans is responsible for SR 63, SR 137, and SR 198. SR 63 is a north–south highway in the Central Valley that begins at SR 137, runs north through the City of Visalia and the towns of Cutler and Orosi, before ending eight (8) miles (13 km) north of Orange Cove, where it reaches its northern terminus at Route 180, roughly 2 and 1/2 miles southwest of the town of Squaw Valley. SR 137 is primarily an east-west highway that begins at SR 43 in the City of Corcoran and runs for 29 miles before ending at SR 65 near the City of Lindsay. SR 198 is an east–west highway that begins at US 101 south of King City and ends in Sequoia National Park. The 142-mile roadway connects the California Central Coast to the mid-Central Valley through Hanford and Visalia. SR 198 intersects the major north–south routes in the Central Valley, including I-5, SR 33, and SR 99. The highway that would become SR 198 was approved for construction in the 1910s through three bond issues, and was added to the state highway system in 1934.

TABLE 1-1

Signalized Intersections
Level of Service Definitions
(Highway Capacity Manual)

LEVEL OF SERVICE	DEFINITION	AVERAGE TOTAL DELAY (sec/veh)
A	Describes operations with very low delay. This level of service occurs when there is no conflicting traffic for a minor street.	≤ 10.0
B	Describes operations with moderately low delay. This level generally occurs with a small amount of conflicting traffic causing higher levels of average delay.	≥ 10.0 and ≤ 20.0
C	Describes operations with average delays. These higher delays may result from a moderate amount of minor street traffic. Queues begin to get longer.	≥ 20.0 and ≤ 35.0
D	Describes a crowded operation, with below average delays. At level D, the influence of congestion becomes more noticeable. Longer delays may result from shorter gaps on the mainline and an increase of minor street traffic. The queues of vehicles are increasing.	≥ 35.0 and ≤ 55.0
E	Describes operations at or near capacity. This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor gaps for the minor street to cross and large queues.	≥ 55.0 and ≤ 80.0
F	Describes operations that are at the failure point. This level, considered to be unacceptable to most drivers, often occurs with over- saturation, that is, when arrival flow rates exceed the capacity of the intersection. Insufficient gaps of suitable size exist to allow minor traffic to cross the intersection safely.	≥ 80.0

TABLE 1-2

Unsignalized Intersections
Level of Service Definitions
(Highway Capacity Manual)

LEVEL OF SERVICE	DEFINITION	AVERAGE TOTAL DELAY (sec/veh)
A	No delay for stop-controlled approaches.	≤ 10.0
B	Describes operations with minor delay.	≥ 10.0 and ≤ 15.0
C	Describes operations with moderate delays.	≥ 15.0 and ≤ 25.0
D	Describes operations with some delays.	≥ 25.0 and ≤ 35.0
E	Describes operations with high delays and long queues.	≥ 35.0 and ≤ 50.0
F	Describes operations with extreme congestion, with very high delays and long queues unacceptable to most drivers.	≥ 50.0

TABLE 1-3

Segment Level of Service Definitions
(Highway Capacity Manual)

LEVEL OF SERVICE	DEFINITION
A	Represents free flow. Individual vehicles are virtually unaffected by the presence of others in the traffic stream.
B	Is in the range of stable flow, but the presence of other vehicles in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver.
C	Is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual vehicles becomes significantly affected by interactions with other vehicles in the traffic stream.
D	Is a crowded segment of roadway with a large number of vehicles restricting mobility and a stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience.
E	Represents operating conditions at or near the level capacity. All speeds are reduced to a low, but relatively uniform value. Small increases in flow will cause breakdowns in traffic movement.
F	Is used to define forced or breakdown flow (stop-and-go gridlock). This condition exists when the amount of traffic approaches a point where the amount of traffic exceeds the amount that can travel to a destination. Operations within the queues are characterized by stop and go waves, and they are extremely unstable.

TABLE 1-4

General Plan Target LOS by Intersection

INTERSECTION	JURISDICTION	TARGET LOS[1]
1. Road 140 / Caldwell Avenue[2]	City of Visalia	D
2. SR 63 (Mooney Boulevard) / Avenue 256[3]	Caltrans	C
3. Road 140 / Avenue 256[2]	Tulare County	D
4. Road 140 / SR 137 (Avenue 232)[4]	Caltrans	C
5. Driveway 1 / Avenue 256[4]	Tulare County	D
6. Driveway 2 / Avenue 256[4]	Tulare County	D
7. Driveway 3 / Avenue 256[4]	Tulare County	D
8. Road 140 / Driveway 4 (Future Intersection)[4]	Tulare County	D
9. Road 140 / Driveway 5 (Future Intersection)[4]	Tulare County	D
10. Road 140 / Driveway 6 (Future Intersection)[4]	Tulare County	D

(1) Based on respective jurisdiction General Plan Standards

(2) Signalized Intersection.

(3) Two-Way Stop Intersection.

(4) One-Way Stop Intersection.

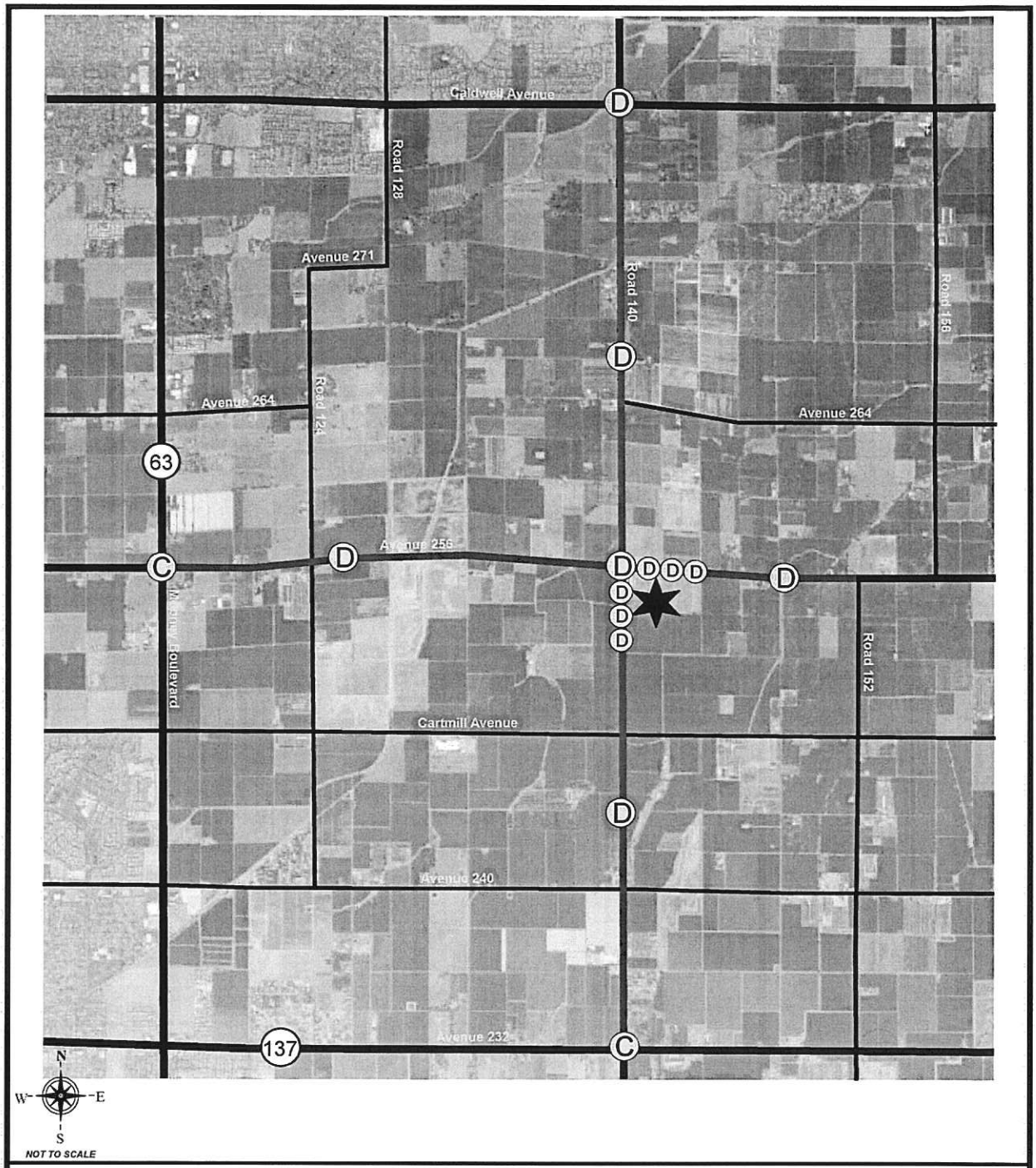

FIGURE 1-3

Study Intersections Target LOS

LEGEND

Project Location — Study Segments — # Study Intersection-Segment/Target LOS

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2.0 Existing Conditions

2.1 Existing Traffic Counts and Roadway Geometrics

The first step toward assessing Project traffic impacts is to assess existing traffic conditions. Existing AM and PM peak hour turning movements were collected at each study intersection by National Data and Surveying Services. Traffic counts were conducted for the peak hour periods of 7:00-9:00 AM and 4:00-6:00 PM for all key intersections on Thursday, August 22nd, 2013 and Tuesday, October 1st, 2013. All counts were conducted while schools were in session. Traffic count data worksheets are provided in Appendix B.

Existing lane geometry is shown in Figure 2-1. Existing 2013 AM and PM peak hour traffic volumes are shown in Figures 2-2 and 2-3.

2.2 Existing Functional Roadway Classification System

Functional classification is the process by which streets and highways are grouped into classes, or systems, according to the type of service they are intended to provide. Fundamental to this process is the recognition that individual streets and highways do not serve travel independently in any major way. Rather, most travel involves movement through a network of roads.

The current hierarchical system of roadways within Tulare County's sphere of influence consists of the following four (4) basic classifications:

- **Freeways** – provide for the ability to carry large traffic volumes at high speeds for long distances. Access points are fully controlled. Freeways connect points within the county and link the county to other parts of the state. Caltrans manages more than 50,000 miles of California's highway and freeway systems.
    - **SR 198 –** currently a divided four-lane freeway with a posted speed limit of 65 mph in the study area.
- **Arterials** – provide for mobility within the county and its cities, carrying through traffic on continuous routes and joining major traffic generators, freeways, and other arterials. Access to abutting private property and intersecting local streets shall generally be restricted.
    - **SR 63 –** currently a divided four-lane major arterial without bike lanes, with a speed limit of 55 mph in the study area.
    - **SR 137 –** currently an undivided two-lane minor arterial without bike lanes, with a posted speed limit of 55 mph through the study area.
    - **Road 140 (Lovers Lane) –** currently a divided four-lane major arterial without bike lanes between Caldwell Avenue and SR 198, with posted speed limits of 60, 55, and 45 mph through the study area.
- **Collectors** – provide for internal traffic movement within communities, and connect local roads to arterials. Direct access to abutting private property shall generally be permitted.

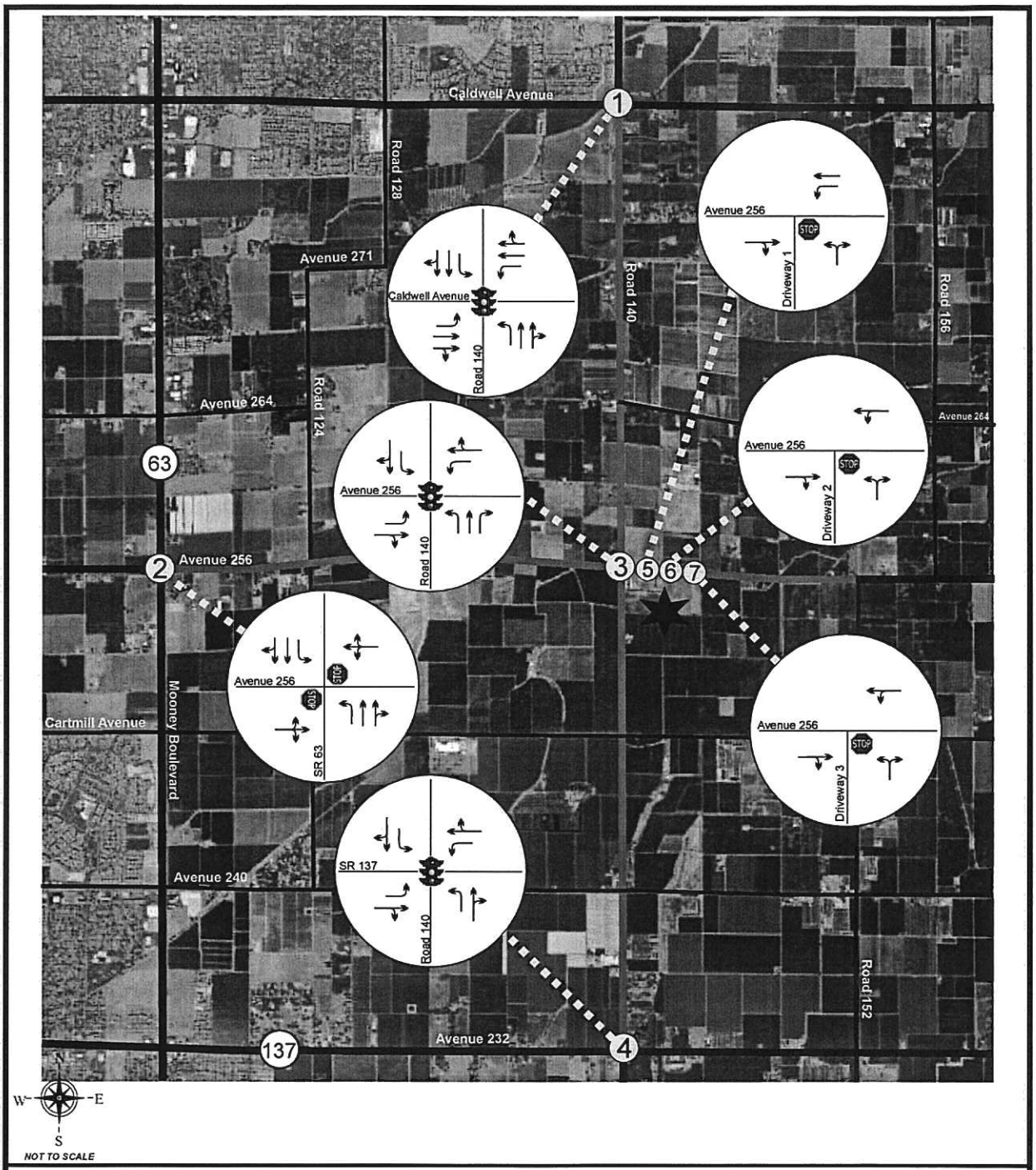

FIGURE 2-1

Existing Lane Geometry

LEGEND

★	Project Site		Traffic Signal	(#)	Study Intersections
↱	Lane Geometry	STOP	Stop Sign	▬	Study Segments

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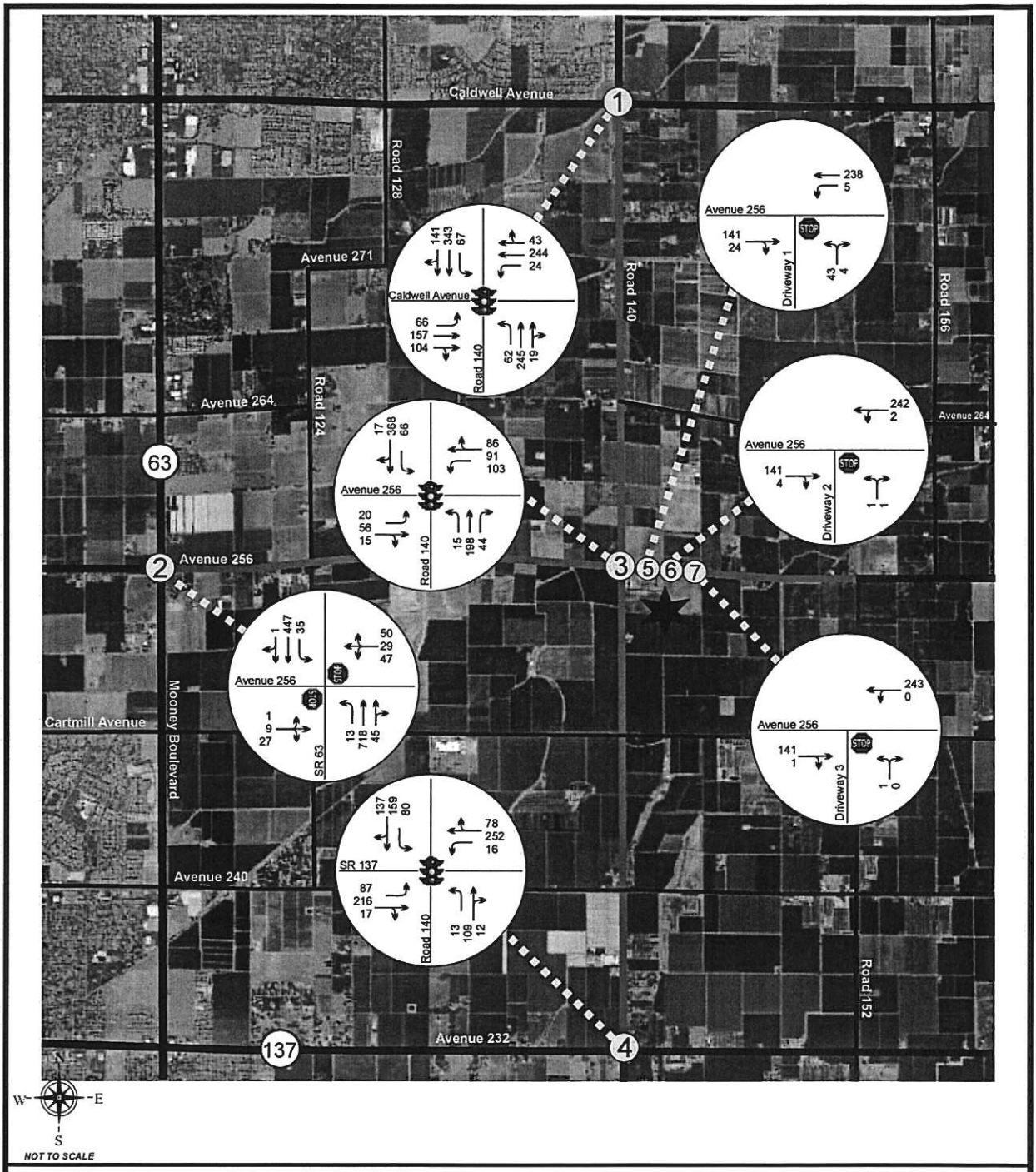

FIGURE 2-2

Existing AM Peak Hour Traffic

LEGEND

★	Project Site		Traffic Signal	(#)	Study Intersections
↱	Lane Geometry	STOP	Stop Sign	▬	Study Segments

VRPA TECHNOLOGIES, INC.

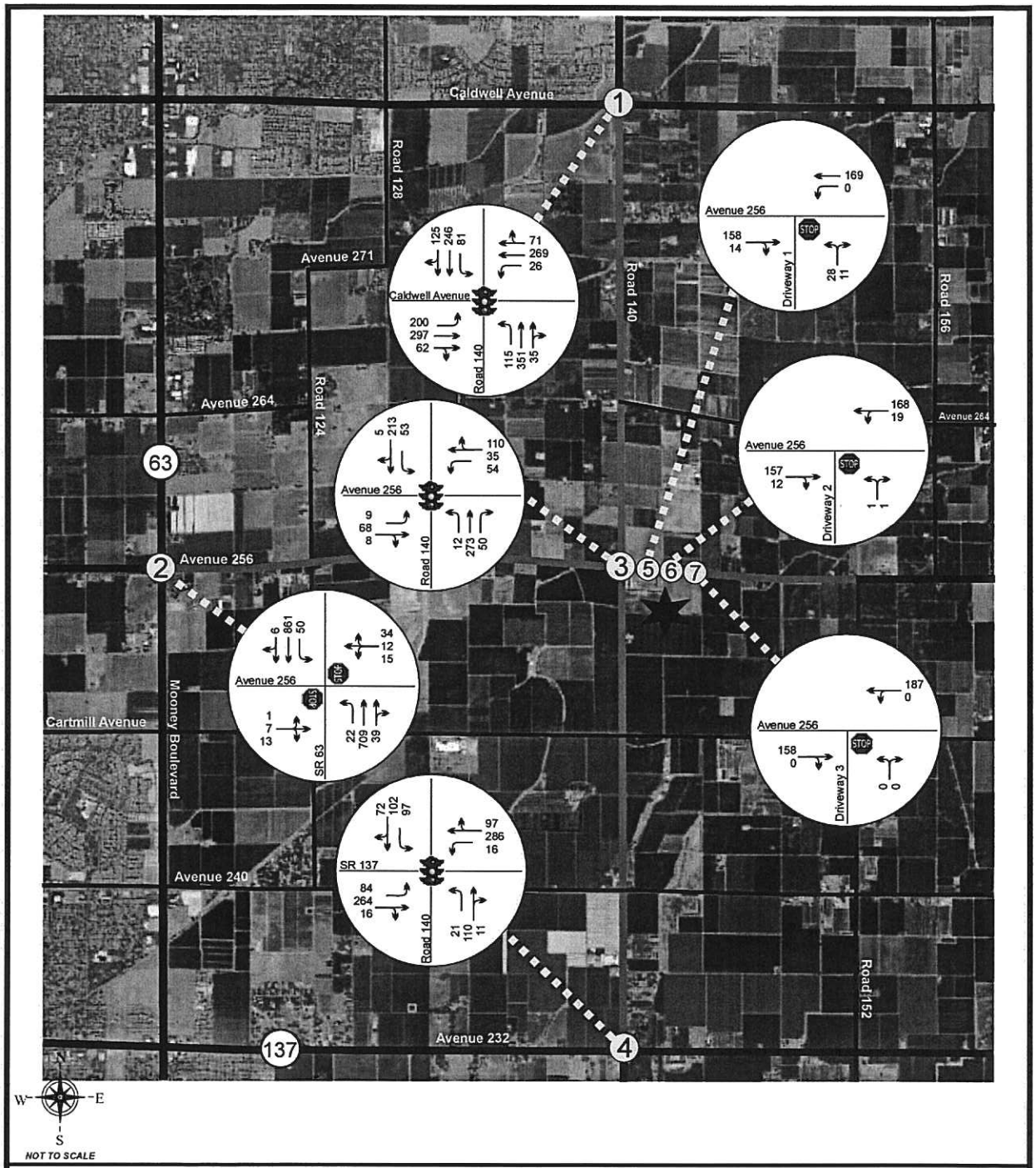

FIGURE 2-3

Existing PM Peak Hour Traffic

LEGEND

★	Project Site		Traffic Signal	(#)	Study Intersections
↱	Lane Geometry	STOP	Stop Sign	▬	Study Segments

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- **Road 140 (Lovers Lane) –** currently an undivided two-lane major collector without bike lanes between Caldwell Avenue and SR 137, with a speed limit of 55 through the study area.
- **Avenue 256 –** currently an undivided two-lane major collector without bike lanes, with a speed limit of 55 mph through the study area.

- **Local Streets** – provide direct access to abutting property and connect with other local roads, collectors, and arterials. Local roads are typically developed as two-lane undivided roadways. Access to abutting private property and intersecting streets shall be permitted.

2.3 Level of Service

Intersection Capacity Analysis

All intersection LOS analyses were estimated using Synchro Software. Various roadway geometrics, traffic volumes, and properties (signal timing, peak hour factors, etc) were input into the Synchro Software program in order to accurately determine the travel delay and LOS for each Study scenario. The intersection LOS and delays reported represent the Synchro outputs. Synchro assumptions, listed below, show the various Synchro inputs and methodologies used in the analysis.

- LANE GEOMETRY

  - Storage lengths for turn lanes for existing intersections were measured in the field and rounded to the nearest 25 feet.

- TRAFFIC CONDITIONS

  - The peak hour factor for Existing, Existing Plus Project, and Existing Plus Project Plus Cumulative (Near-Term) conditions were determined using existing counts based on approach of movement.
  - The peak hour factor for future scenarios is 0.92.
  - Posted roadway speed limits were observed in the field and input into the Synchro network to determine roadway link speeds.
  - The Right Turn on Red parameter was set to 'Yes'.
  - Heavy vehicle percentages were applied as follows and are based on the HCM default or Caltrans' truck data available on its website:
    - SR 63 – 5%
    - SR 137 – 21%
    - All other roadways – 3%

- SIGNAL TIMING PARAMETERS

  - Signal phasing was based on a field review; minimum green and yellow times as well as pedestrian walk and don't walk times were based on traffic signal timing sheets.
  - Signal phasing remained constant throughout scenarios unless the project or any other planned improvements are specifically changing an intersection. Lead-Lag optimize was set to "fixed" for all

scenarios.

- Traffic signals were assumed to be "actuated and uncoordinated".
- All intersection cycle lengths and offsets were optimized using a cycle length range of 60-120 seconds.

Results of the analysis show that one of the study intersections, SR 63 at Avenue 256, is operating worse than the minimum level of service. However, the intersection of SR 63 and Avenue 256 is currently under construction for the installation of a traffic signal. A two-way stop sign served as the traffic control at the time existing traffic counts were conducted. Table 2-1 shows the intersection LOS for the existing conditions. Synchro Worksheets are provided in Appendix C.

Segment Analysis

Results of the AM and PM peak hour LOS segment analysis along the existing street and highway system in the project area are reflected in Table 2-2. Street segment capacity was determined using information shown in Table 2-3, which comes from the Modified Arterial Level of Service Tables included in Appendix A. Results of the analysis show that none of the study intersections are operating worse than the minimum LOS.

TABLE 2-1

Existing Intersection Operations

INTERSECTION	CONTROL	PEAK HOUR	EXISTING 2013	
			DELAY	LOS
1. Road 140 / Caldwell Avenue	Signalized	AM	22.8	C
		PM	31.9	C
2. SR 63 / Avenue 256	Two-Way Stop Sign	AM	**97.0**	**F***
		PM	**73.0**	**F***
3. Road 140 / Avenue 256	Signalized	AM	22.9	C
		PM	17.6	B
4. Road 140 / SR 137	Signalized	AM	33.6	C
		PM	34.8	C
5. Driveway 1 / Avenue 256	One-Way Stop Sign	AM	11.3	B
		PM	10.1	B
6. Driveway 2 / Avenue 256	One-Way Stop Sign	AM	9.7	A
		PM	9.6	A
7. Driveway 3 / Avenue 256	One-Way Stop Sign	AM	11.6	B
		PM	0.0	A

DELAY is measured in seconds

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

For signalized and all-way stop controlled intersections, delay results show the average for the entire intersection. For one-way and two-way stop controlled intersections, delay results show the delay for the worst movement.

* Meets Peak Hour Signal Warrant. A traffic signal will be contructed at this site in the near future.

TABLE 2-2

Existing Street Segment Operations

SEGMENT	DESCRIPTION	PEAK HOUR	EXISTING 2013	
			VOLUME	LOS
1. Road 140: Caldwell Avenue to Avenue 256	Two-lane Undivided	AM	797	D
		PM	835	D
2. Road 140: Avenue 256 to SR 137	Two-Lane Undivided	AM	743	D
		PM	610	C
3. Avenue 256: SR 63 to Road 140	Two-Lane Undivided	AM	215	C
		PM	157	C
4. Avenue 256: SR 63 to Road 140	Two-Lane Undivided	AM	446	C
		PM	370	C

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

TABLE 2-3

Peak Hour Two-Way Volumes

			LEVEL OF SERVICE			
LANES	DIVIDED	TYPE	B	C	D	E
2	Undivided	Signalized Arterial	***	684	907	972
4	Undivided	Signalized Arterial	***	1,526	1,829	1,958
4	Divided	Signalized Arterial	***	2,034	2,439	2,610

*** Cannot be achieved using table input value defaults

3.0 Traffic Impacts

This chapter provides an assessment of the traffic that the Project is expected to generate and the impact of that traffic on the surrounding street system.

3.1 Trip Generation

To assess the impacts that the Project may have on the surrounding street and highway segments and intersections, the first step is to determine Project trip generation. Project trip generation was estimated as shown in Table 3-1 and is based on rates contained in the ITE Trip Generation Manual, 9th Edition.

TABLE 3-1

Project Trip Generation

LAND USE	SIZE	TRIP RATE SOURCE	DAILY TRIP ENDS		AM PEAK HOUR					PM PEAK HOUR				
			RATE	VOLUME	RATE	IN:OUT SPLIT	VOLUME			RATE	IN:OUT SPLIT	VOLUME		
							IN	OUT	TOTAL			IN	OUT	TOTAL
Central Road Yard Facility	78 Employees	ITE (110)[1]	3.02	236	0.44	83:17	28	6	34[2]	0.42	21:79	7	26	33[2]
Transit Operations[3]	Approximately 15 new buses			15			0	9	9			9	0	9
TOTAL PROJECT TRIPS				**248**			**28**	**15**	**43**			**16**	**26**	**42**

Source: Generation factors from ITE Trip Generation Manual, 9th Edition.
Trip ends are one-way traffic movements, entering or leaving.
The numbers in parenthesis are ITE land use codes.
1: General Light Industrial Land Use
2: Truck trips represent 39.5% of total trips in the AM peak hour and 23% of total trips in the PM peak hour based on the City of Fontana Study
3: Bus trips determined by Tulare County staff

3.2 Trip Distribution

Project trip distribution is shown in Figures 3-1 and 3-2 and is based upon prevailing traffic patterns in the study area. The Project is expected to have three (3) new access points along Road 140 in addition to the three (3) driveways located along Avenue 256. All access points will be designed in accordance with Tulare County's design standards.

3.3 Project Traffic

Project traffic as shown in Table 3-1 was distributed to the roadway system using the trip distribution percentages shown in Figures 3-1 and 3-2. It should be noted that a passenger car equivalent (PCE) factor of 2.0 was applied to trucks and buses generated by the proposed Project, which is consistent with 2010 HCM methodologies. The application of the PCE factor is reflected in the figures, Synchro worksheets, and segment analysis. A graphical representation of the resulting AM and PM peak hour Project trips used is shown in Figures 3-3 and 3-4.

3.4 Existing 2013 Plus Project Traffic Conditions

An Existing Plus Project Scenario was analyzed to include existing traffic plus traffic generated by the Project. The resulting traffic is shown in Figures 3-5 and 3-6.

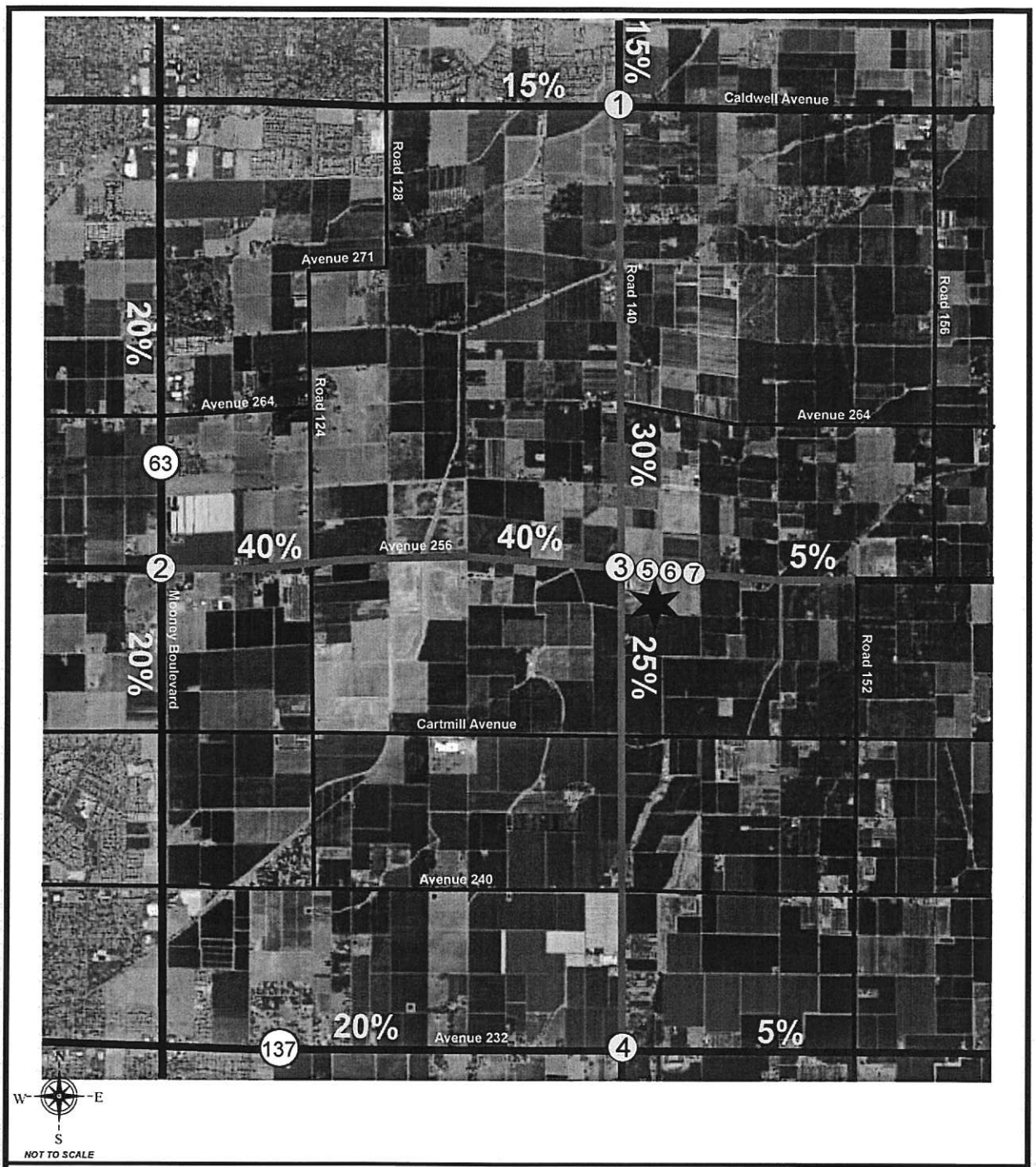

FIGURE 3-1

Project Trip Distribution Percentage

LEGEND

Project Location | Study Intersections (Existing) | Study Segments

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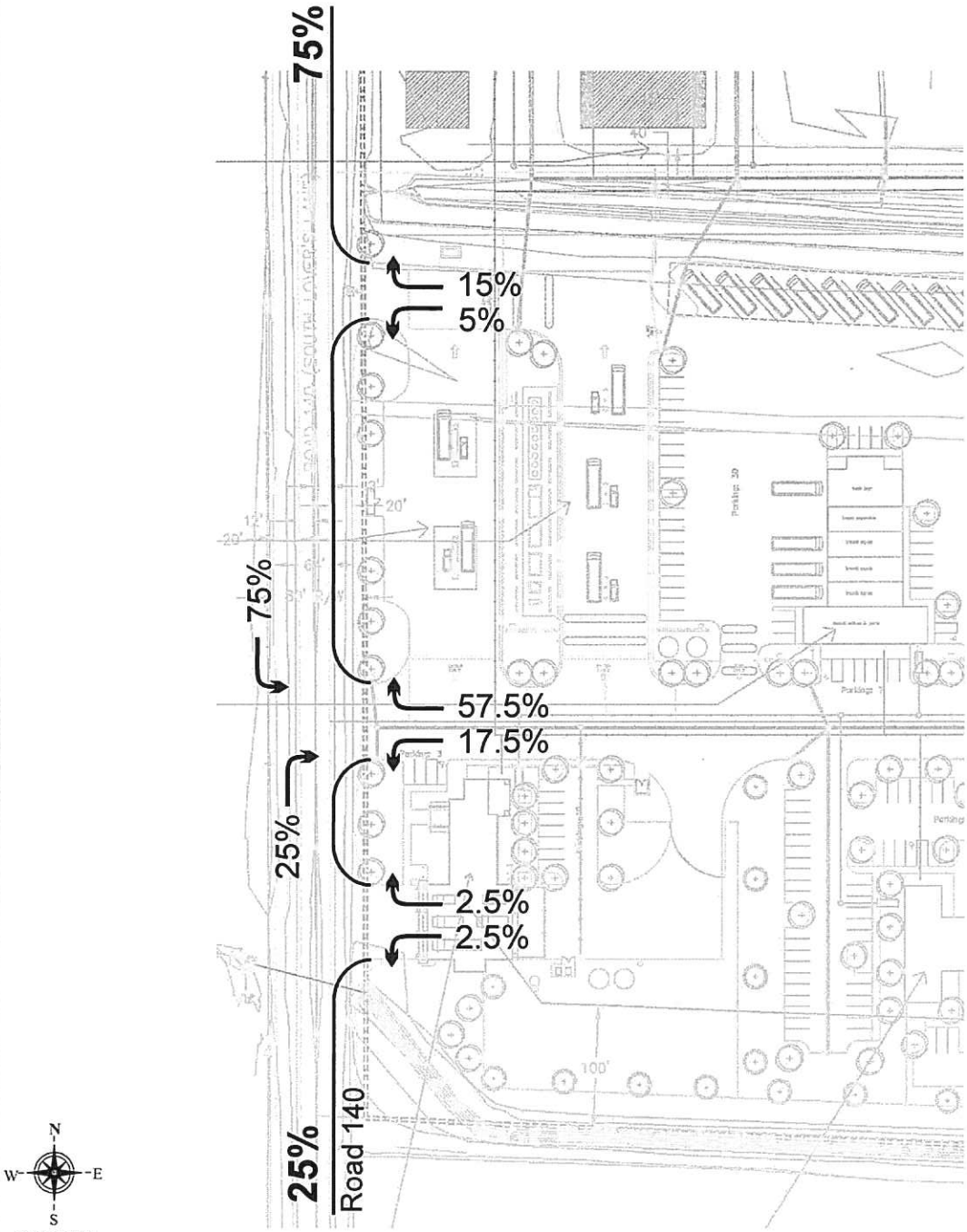

FIGURE 3-2

Trip Distribution at Project Access

LEGEND

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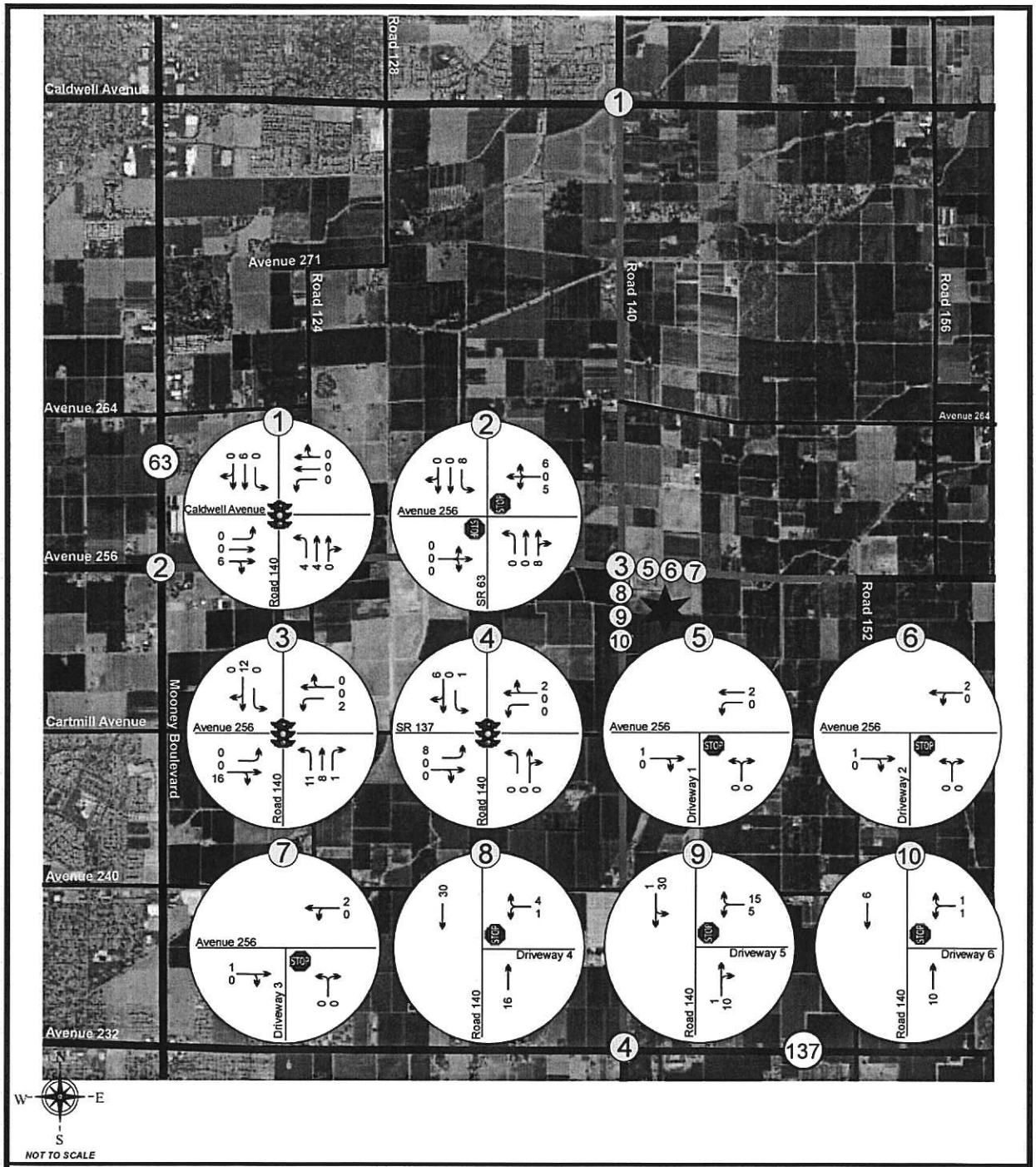

FIGURE 3-3

Project AM Peak Hour Traffic

LEGEND

Project Site	Traffic Signal	Study Intersections
Lane Geometry	Stop Sign	Study Segments

VRPA TECHNOLOGIES, INC.

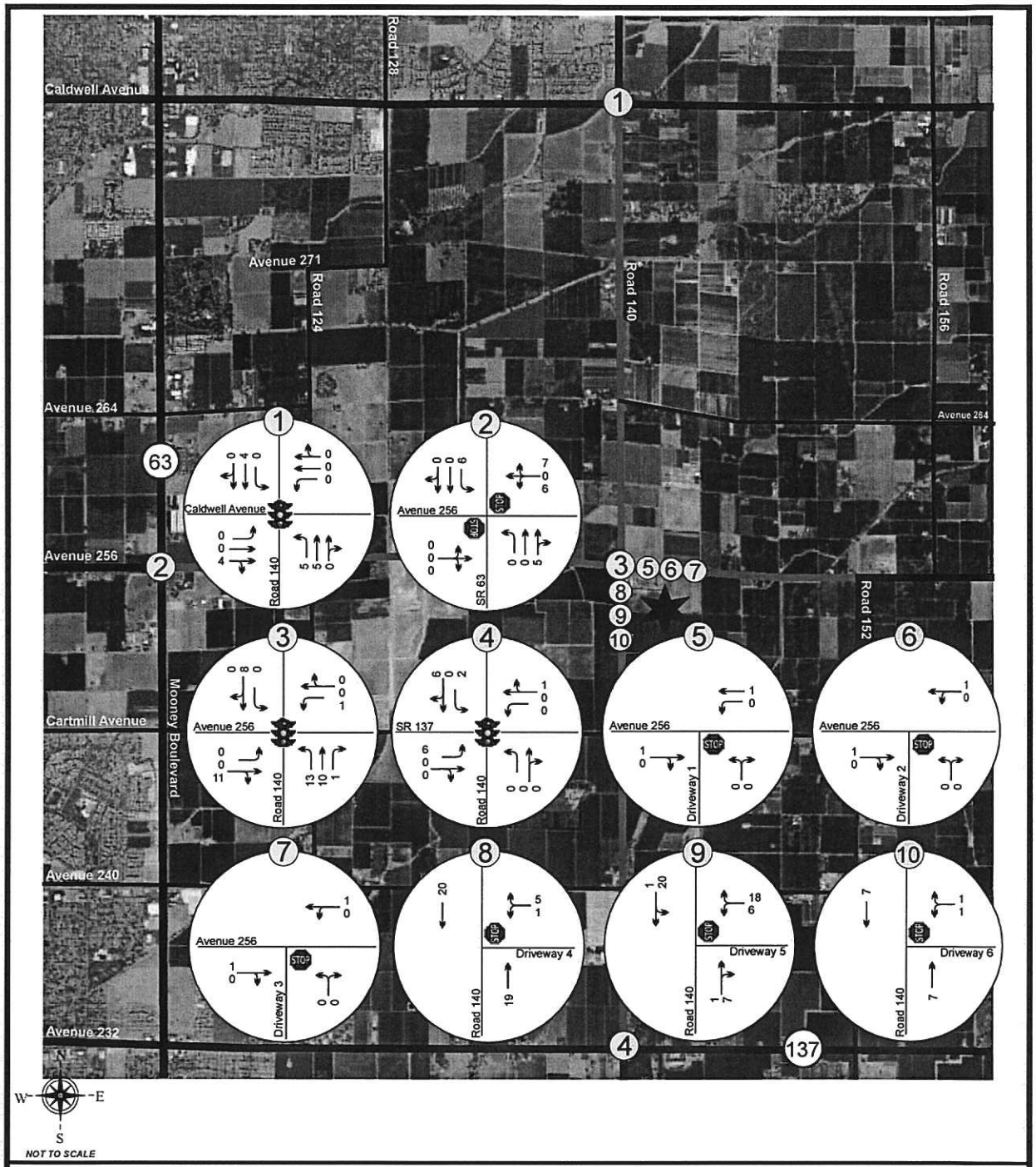

FIGURE 3-4

Project PM Peak Hour Traffic

LEGEND

Project Site | Traffic Signal | Study Intersections
Lane Geometry | Stop Sign | Study Segments

VRPA TECHNOLOGIES, INC.

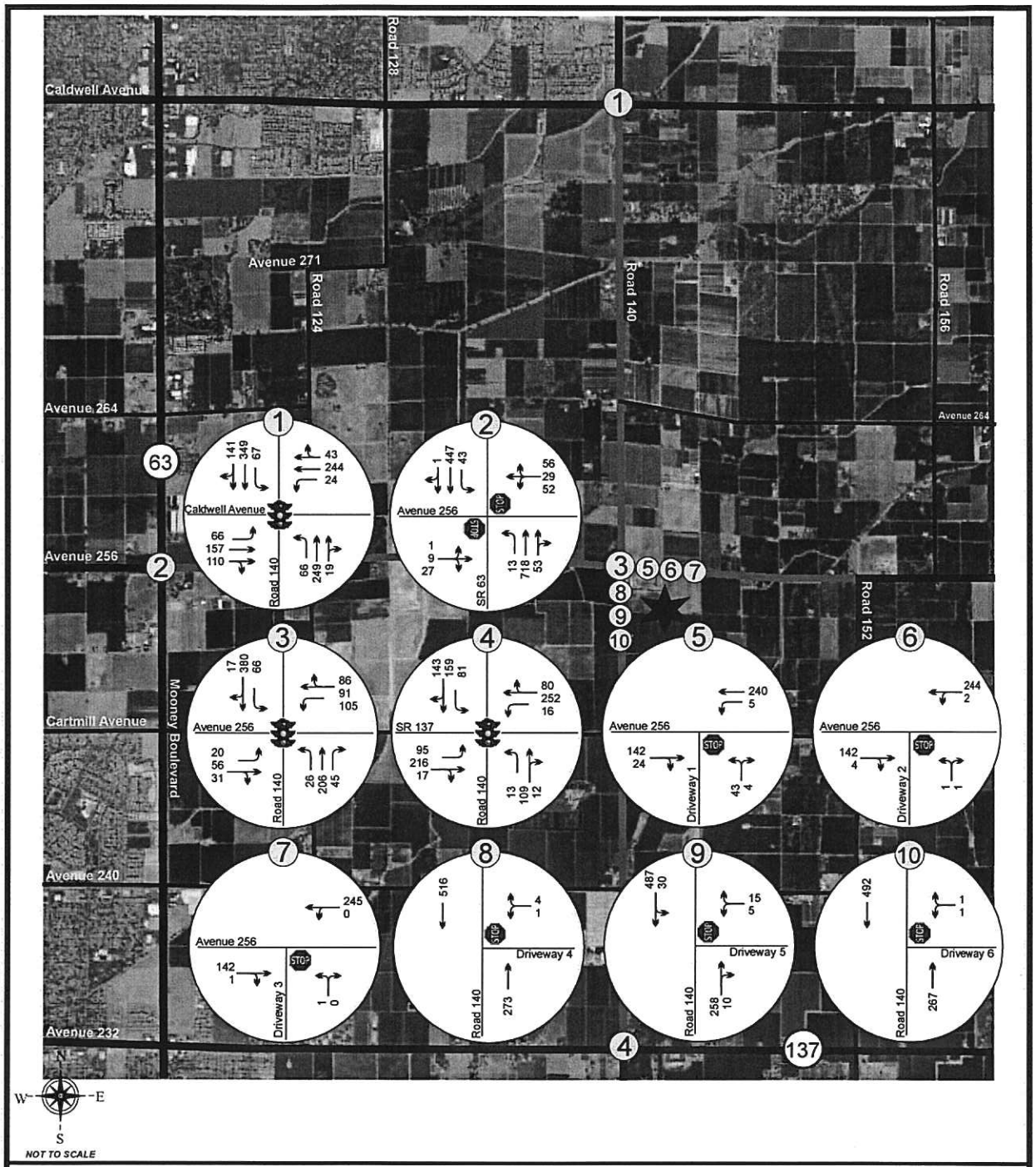

FIGURE 3-5

Existing Plus Project AM Peak Hour Traffic

LEGEND

★	Project Site		Traffic Signal	(#)	Study Intersections
↱	Lane Geometry	STOP	Stop Sign	▬	Study Segments

VRPA TECHNOLOGIES, INC.

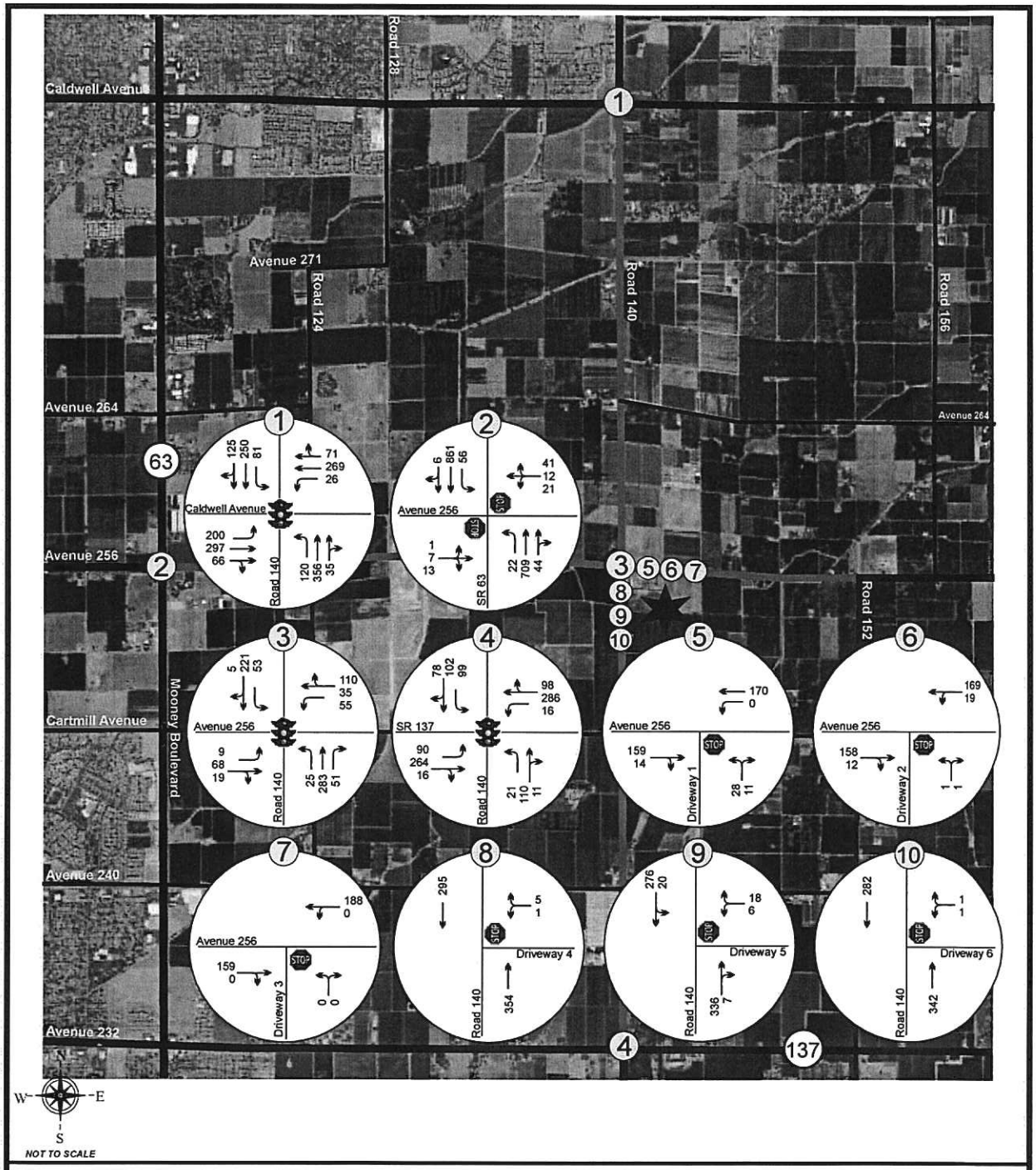

FIGURE 3-6

Existing Plus Project PM Peak Hour Traffic

LEGEND

★	Project Site		Traffic Signal	(#)	Study Intersections
↱	Lane Geometry	STOP	Stop Sign	▬	Study Segments

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3.5 Cumulative Project Traffic

Traffic impact analyses typically require the analysis of cumulative projects (approved or pending developments that have not yet been built in the vicinity of the Project) in addition to the proposed Project. The cumulative projects included in this TIS include the Harvest Power Project located off of Road 140 between Cartmill Avenue and Prosperity Avenue. Trip generation and distribution information for the cumulative project was based on information found in the corresponding TIS report. Trip generation and distribution information are provided in Appendix D. Figures 3-7 and 3-8 show the AM and PM peak hour trips for Cumulative project traffic.

In addition to the Cumulative Project shown above, the intersection of SR 63 and Avenue 256 is currently under construction for the installation of a traffic signal. This improvement was incorporated in the Near-Term (Year 2016) Opening day and Cumulative 2040 Without Project and Cumulative 2040 Plus Project scenarios only.

3.6 Near-Term (Year 2016) Opening Day Traffic Conditions

A Near-Term (Year 2016) Scenario was analyzed to include existing traffic plus traffic generated by the Project plus traffic generated by cumulative projects in the study area. Interpolating between the Year 2012 and 2040 segment volumes of the regional travel models determined the 2016 street segment volumes. The TurnsW32 program calculated the forecasted turning movement volumes for the year 2016 by utilizing these 2016 segment volumes along with the existing traffic volumes for all turning movements. For reference, TurnsW32 worksheets are provided in Appendix E. The resulting traffic is shown in Figures 3-9 and 3-10.

3.7 Cumulative 2040 Without Project Traffic Conditions

The impacts of the Project were analyzed considering future traffic conditions, approximately twenty-seven (27) years after the assumed opening day of the Project, or in this case the year 2040. The levels of traffic expected in 2040 relate to the cumulative effect of traffic increases resulting from the implementation of the General Plans of local agencies, including the City of Visalia and Tulare County. Traffic conditions without the Project in the Year 2040 were estimated using the Tulare County Association of Governments (TCAG) regional travel model. Future traffic forecasts along study area roadway segments were estimated by utilizing methodologies published by Fresno COG using the TurnsW32 program.

For reference, the TCAG model outputs are provided in Technical Appendix F. Traffic conditions resulting from this scenario are shown in Figures 3-11 and 3-12.

3.8 Cumulative 2040 With Project Traffic Conditions

The addition of Project trips, which were distributed to the roadway system using the trip distribution percentages shown in Figures 3-1 and 3-2 (Section 3.3), were added to Cumulative 2040 without Project traffic volumes. This leads to the results shown in Figures 3-13 through 3-14.

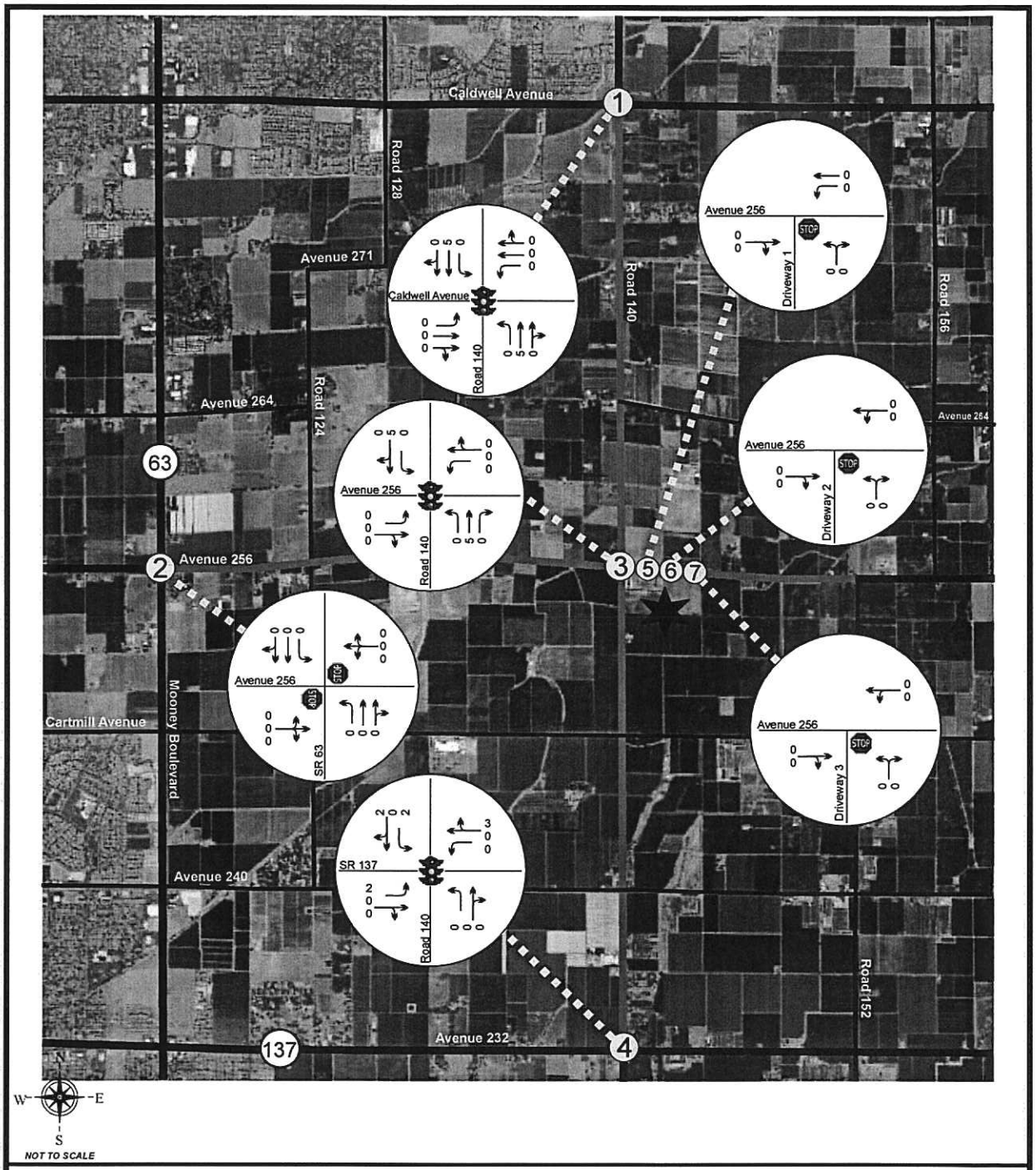

FIGURE 3-7

Cumulative Project AM Peak Hour Traffic

LEGEND

★	Project Site		Traffic Signal	(#)	Study Intersections
⤴	Lane Geometry	STOP	Stop Sign	▬	Study Segments

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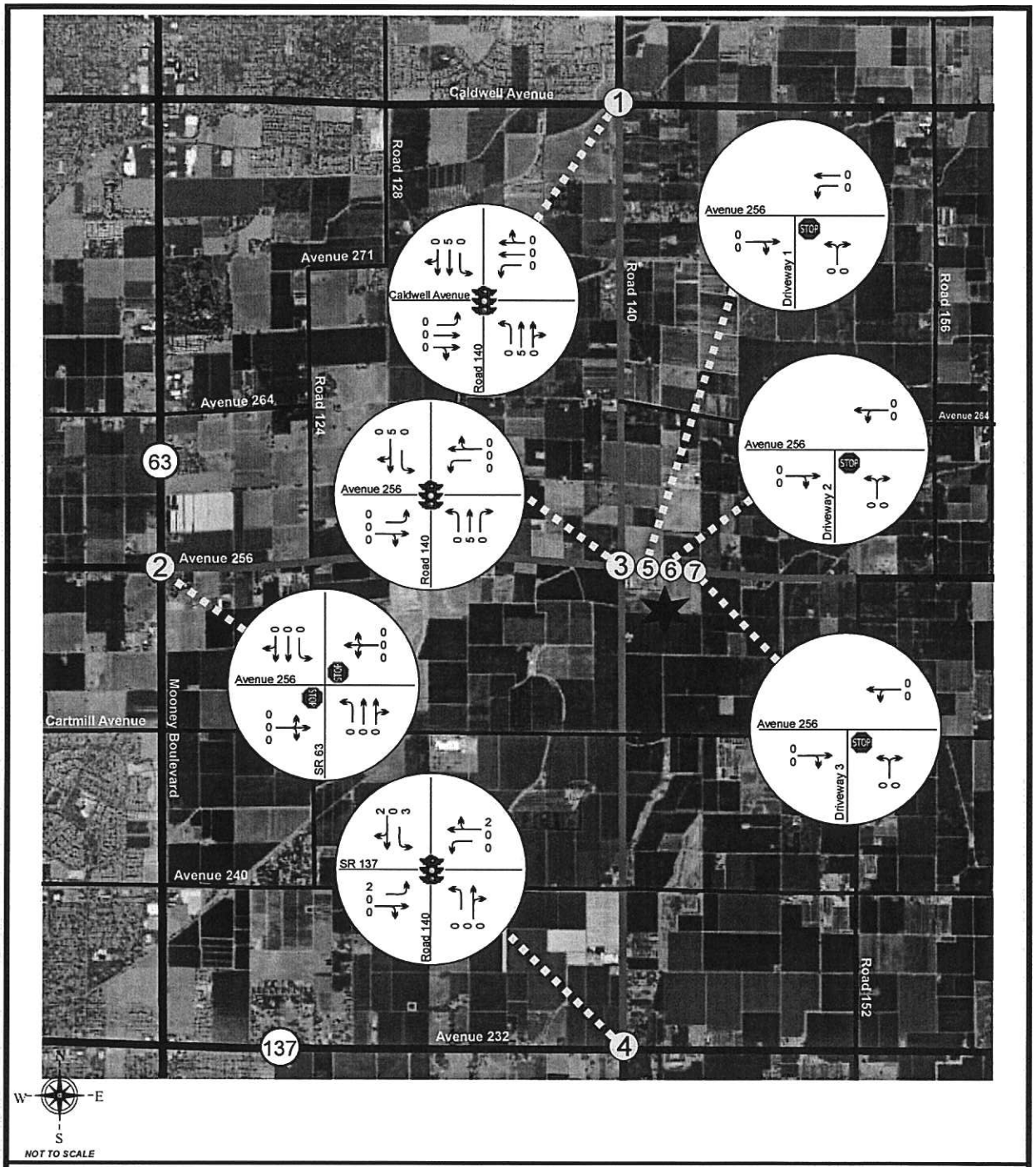

FIGURE 3-8

Cumulative Project PM Peak Hour Traffic

LEGEND

★	Project Site		Traffic Signal	(#)	Study Intersections
↱	Lane Geometry	STOP	Stop Sign	▬	Study Segments

VRPA TECHNOLOGIES, INC.

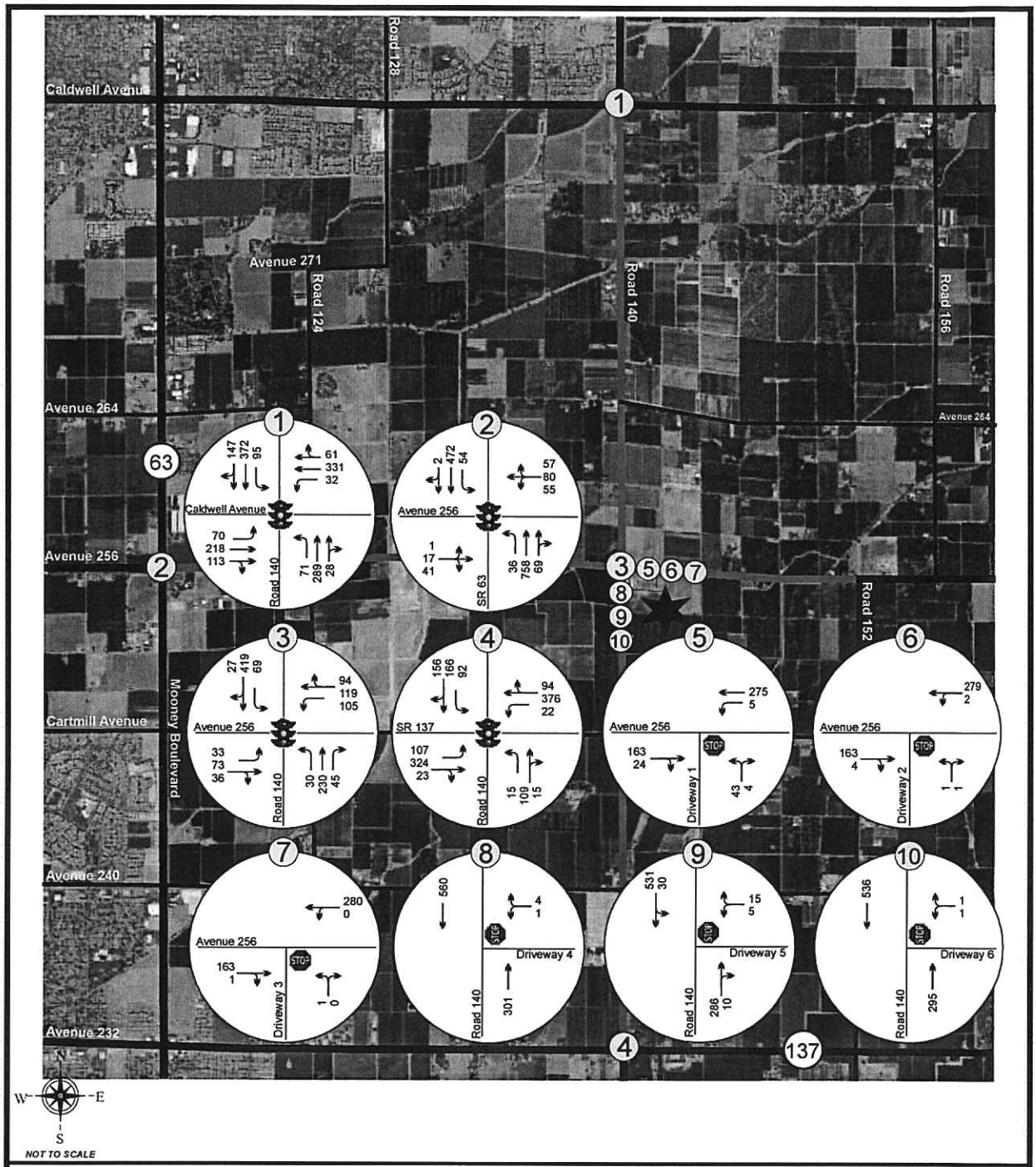

FIGURE 3-9

Near-Term (Year 2016) AM Peak Hour Traffic

LEGEND

Project Site | Traffic Signal | Study Intersections
Lane Geometry | Stop Sign | Study Segments

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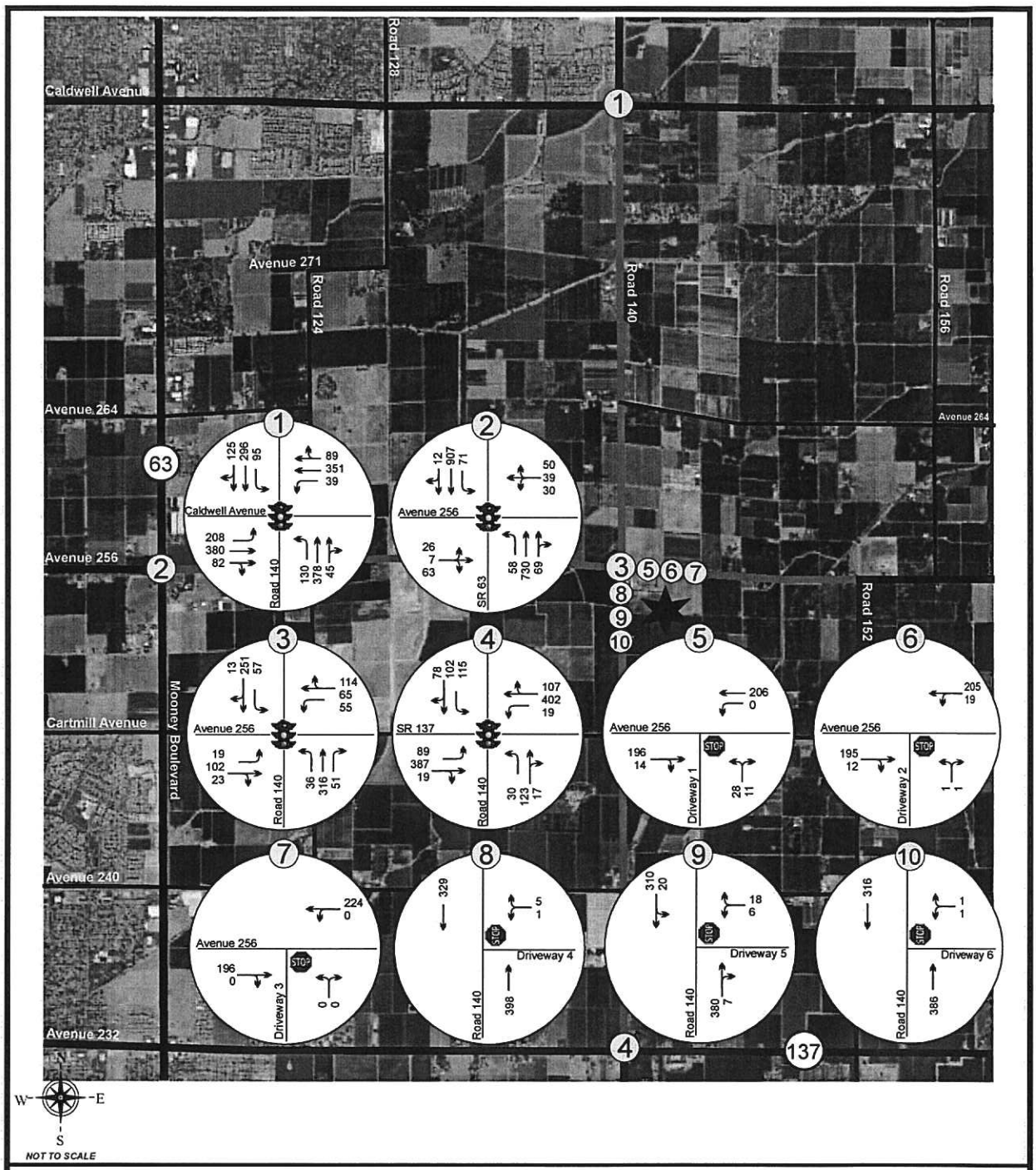

FIGURE 3-10

Near-Term (Year 2016) PM Peak Hour Traffic

LEGEND

Project Site	Traffic Signal	Study Intersections
Lane Geometry	Stop Sign	Study Segments

VRPA TECHNOLOGIES, INC.

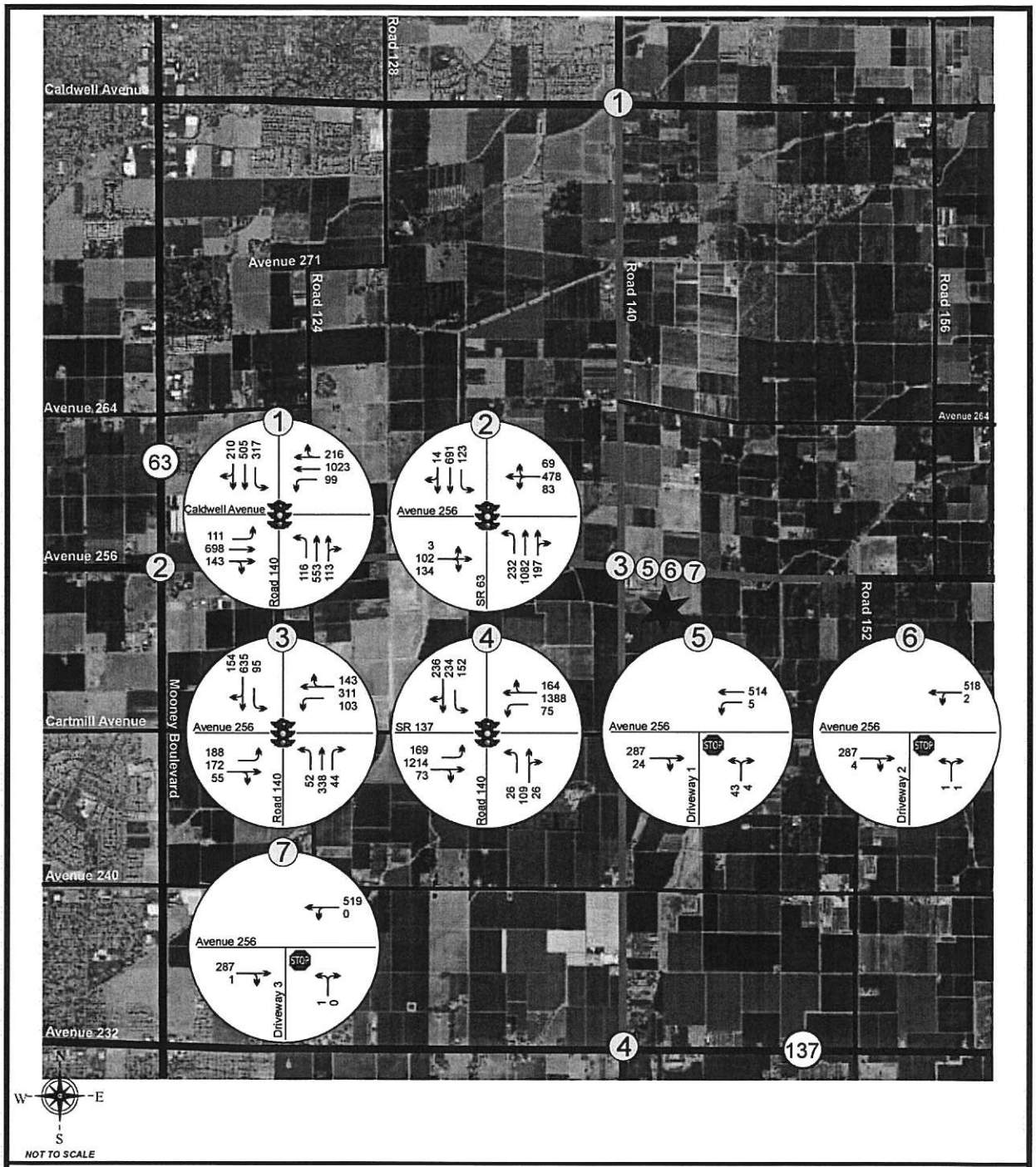

FIGURE 3-11

Cumulative Year 2040 Without Project AM Peak Hour Traffic

LEGEND

★	Project Site		Traffic Signal	(#)	Study Intersections
↱	Lane Geometry	STOP	Stop Sign	▬	Study Segments

VRPA TECHNOLOGIES, INC.

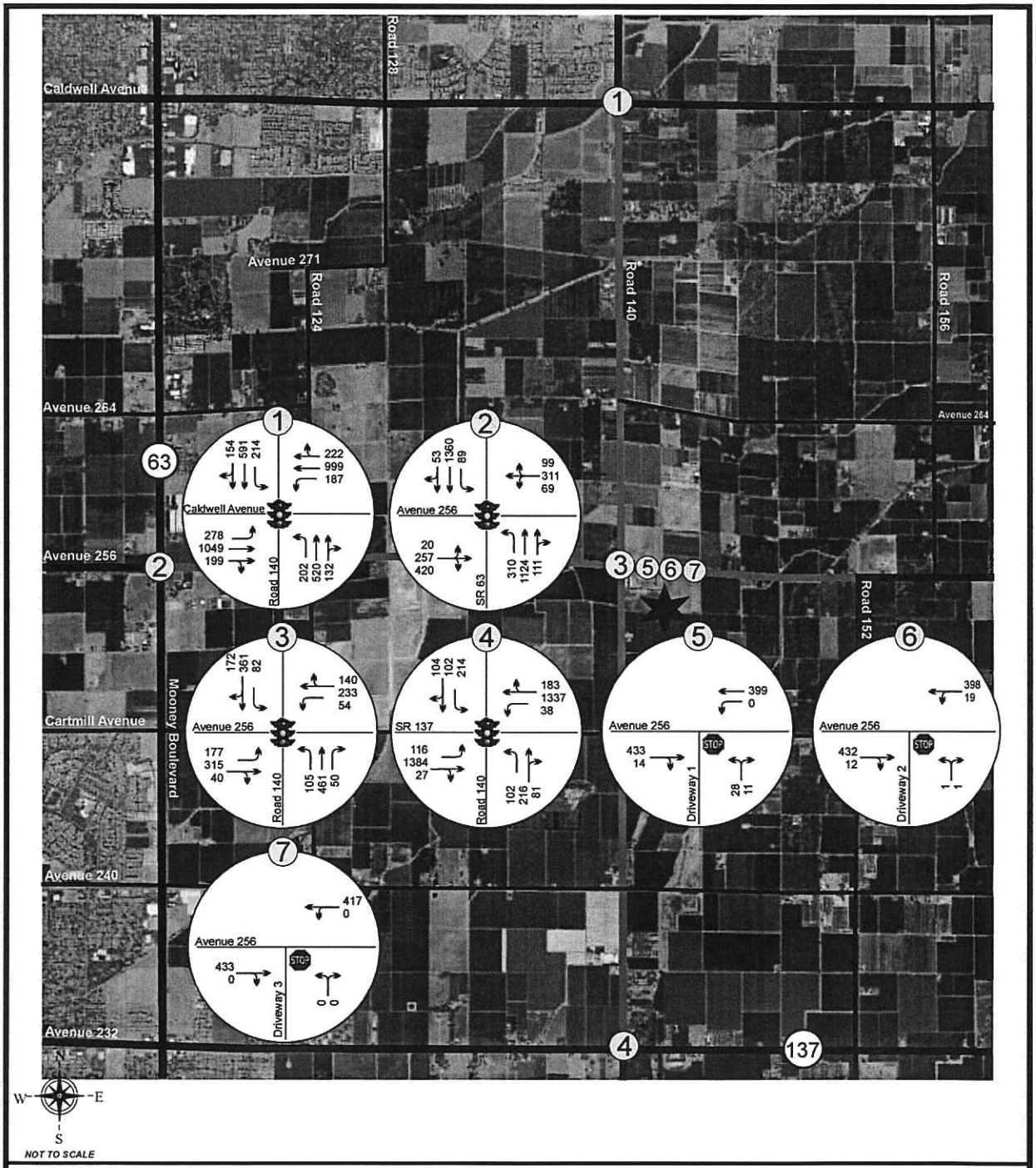

FIGURE 3-12

Cumulative Year 2040 Without Project PM Peak Hour Traffic

LEGEND

Project Site | Traffic Signal | Study Intersections
Lane Geometry | Stop Sign | Study Segments

VRPA TECHNOLOGIES, INC.

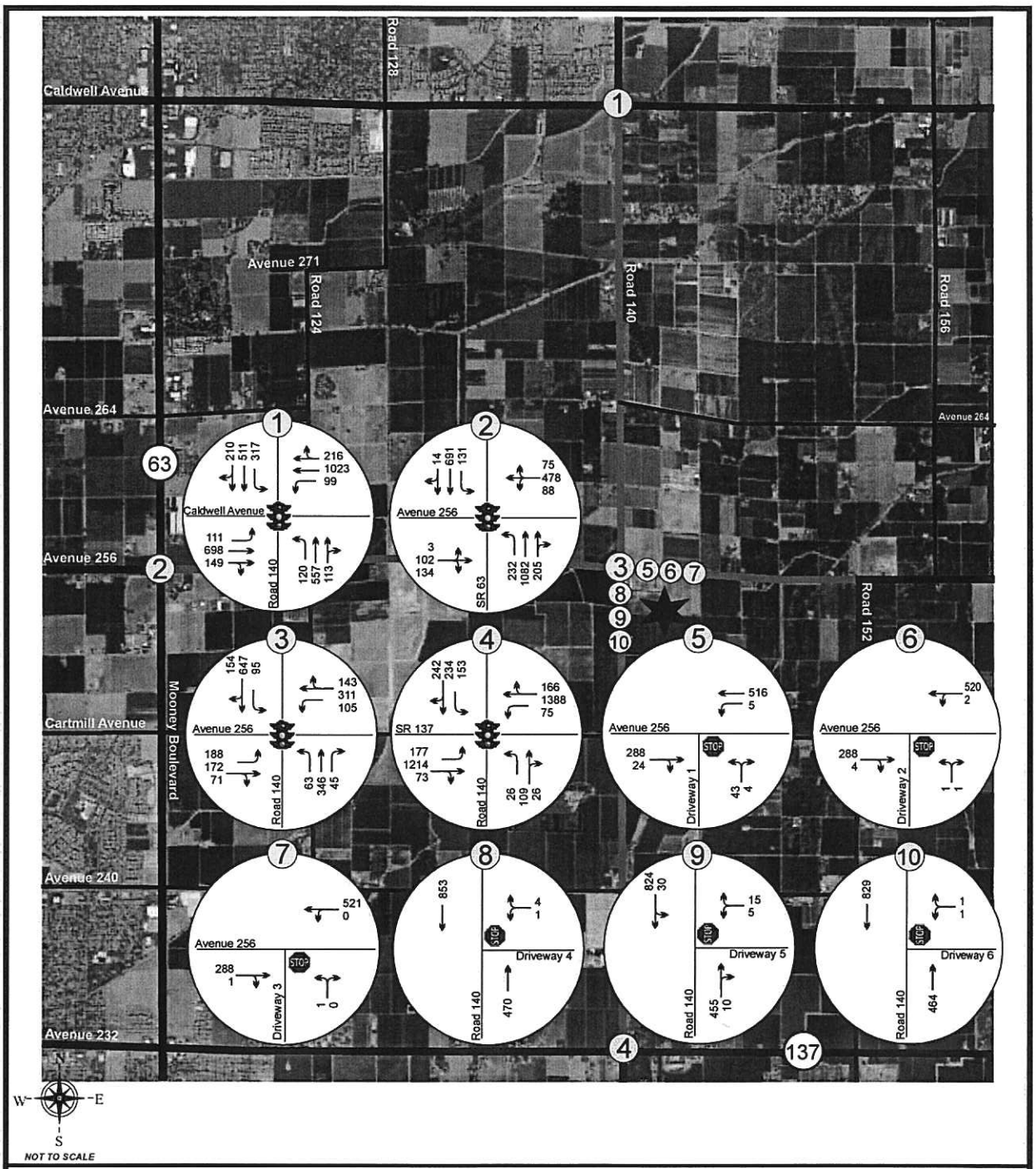

FIGURE 3-13

Cumulative Year 2040 With Project AM Peak Hour Traffic

LEGEND

Project Site	Traffic Signal	Study Intersections
Lane Geometry	Stop Sign	Study Segments

VRPA TECHNOLOGIES, INC.

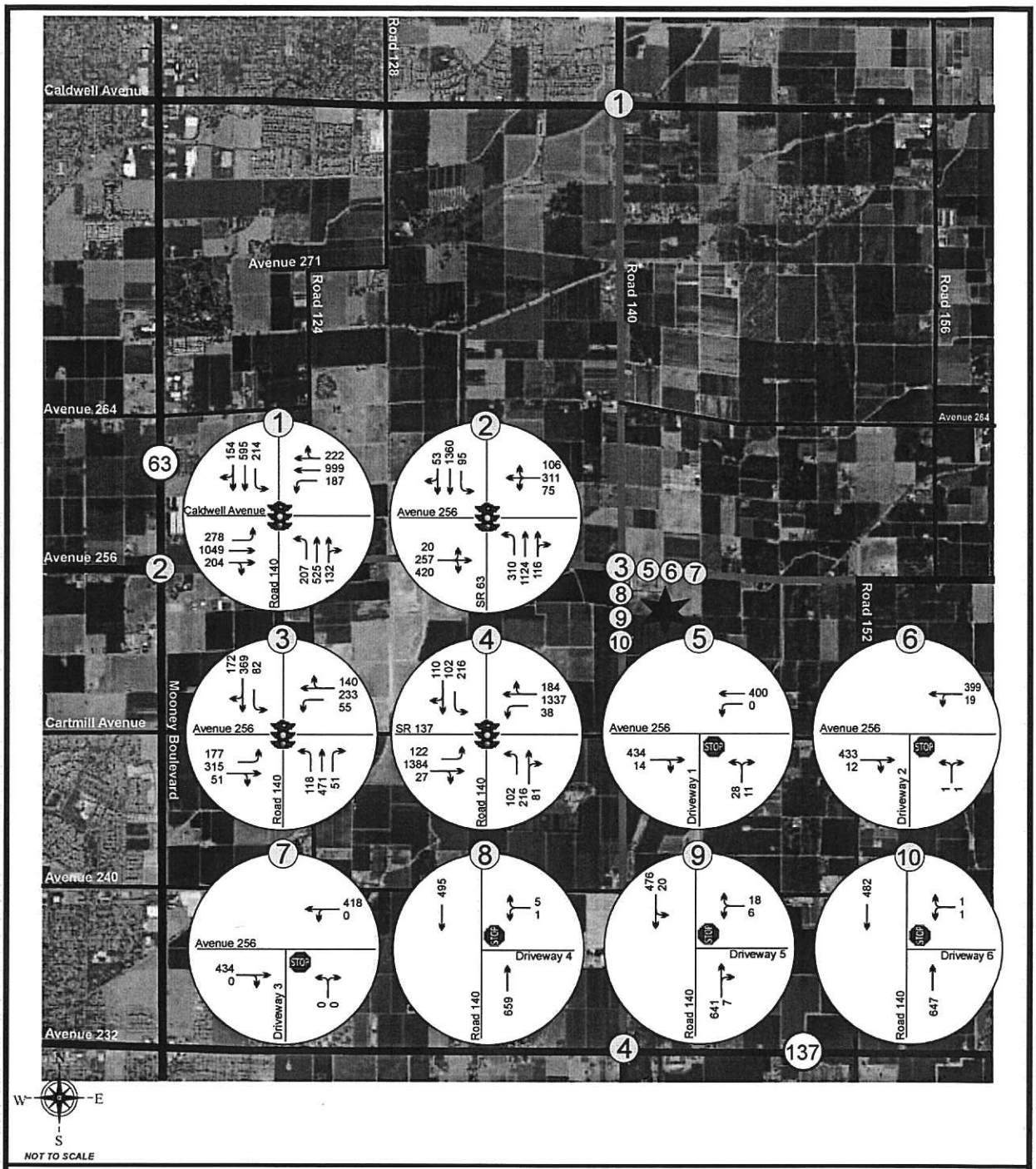

FIGURE 3-14

Cumulative Year 2040 With Project PM Peak Hour Traffic

LEGEND

Project Site	Traffic Signal	Study Intersections
Lane Geometry	Stop Sign	Study Segments

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3.9 Impacts

INTERSECTION LOS

Table 3-2 shows intersections that are expected to fall short of desirable operating conditions for various scenarios. Of the ten (10) studied intersections, four (4) will exceed the level of service standard under the Cumulative 2040 With and Without Project scenarios. Potential mitigation measures are discussed in Chapter 4 of this report.

SEGMENT LOS

Table 3-3 shows roadway segments that are expected to fall short of desirable operating conditions for various scenarios. All but one of the roadway segments analyzed as part of this TIS are expected to exceed the level of service standard under the Cumulative 2040 With and Without Project scenarios. Potential mitigation measures are discussed in Chapter 4 of this report.

TABLE 3-2

Intersection Operations

INTERSECTION	CONTROL	PEAK HOUR	EXISTING PLUS PROJECT		NEAR-TERM (YEAR 2016)		CUMULATIVE 2040 WITHOUT PROJECT		CUMULATIVE 2040 WITH PROJECT	
			DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
1. Road 140 / Caldwell Avenue	Signalized	AM	22.8	C	26.7	C	**72.9**	**E**	73.1	E
		PM	32.1	C	36.3	D	**139.2**	**F**	141.9	F
2. SR 63 / Avenue 256	Two-Way Stop Sign	AM	**127.0**	**F***	16.4	B	**71.8**	**E**	76.3	E
		PM	**102.0**	**F***	14.9	B	**135.0**	**F**	140.6	F
3. Road 140 / Avenue 256	Signalized	AM	25.7	C	28.3	C	**84.4**	**F**	91.0	F
		PM	17.6	B	19.5	B	**56.4**	**E**	58.5	E
4. Road 140 / SR 137	Signalized	AM	34.7	C	**44.3**	**D**	**471.8**	**F**	474.8	F
		PM	**36.0**	**D**	**43.6**	**D**	**459.7**	**F**	461.3	F
5. Driveway 1 / Avenue 256	One-Way Stop Sign	AM	11.3	B	11.7	B	14.1	B	14.1	B
		PM	10.1	B	10.4	B	12.7	B	12.7	B
6. Driveway 2 / Avenue 256	One-Way Stop Sign	AM	9.8	A	10.0	A	11.0	B	11.1	B
		PM	9.6	A	9.9	A	11.5	B	11.5	B
7. Driveway 3 / Avenue 256	One-Way Stop Sign	AM	11.7	B	12.3	B	16.5	C	16.5	C
		PM	0.0	A	0.0	A	0.0	A	0.0	A
8. Road 140 / Driveway 4	One-Way Stop Sign	AM	11.2	B	11.6	B			18.4	C
		PM	11.1	B	11.6	B			16.0	C
9. Road 140 / Driveway 5	One-Way Stop Sign	AM	11.8	B	12.5	B			22.3	C
		PM	11.6	B	12.2	B			18.2	C
10. Road 140 / Driveway 6	One-Way Stop Sign	AM	12.7	B	13.5	B			26.7	D
		PM	12.0	B	12.7	B			19.8	C

DELAY is measured in seconds

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

For signalized and all-way stop controlled intersections, delay results show the average for the entire intersection. For one-way and two-way stop controlled intersections, delay results show the delay for the

* Meets Peak Hour Signal Warrant. A traffic signal will be contructed at this site in the near future.

TABLE 3-3

Segment Operations

SEGMENT	DESCRIPTION	PEAK HOUR	EXISTING PLUS PROJECT		NEAR-TERM (YEAR 2016)		CUMULATIVE 2040 WITHOUT PROJECT		CUMULATIVE 2040 WITH PROJECT	
			VOLUME	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME	LOS
1. Road 140: Caldwell Avenue to Avenue 256	Two-lane Undivided	AM	817	D	905	D	**1,553**	F	**1,573**	**F**
		PM	853	D	**970**	**E**	**1,831**	F	**1,850**	**F**
2. Road 140: Avenue 256 to SR 137	Two-Lane Undivided	AM	793	D	865	D	**1,227**	F	**1,277**	**F**
		PM	654	C	732	D	**1,071**	F	**1,115**	**F**
3. Avenue 256: SR 63 to Road 140	Two-Lane Undivided	AM	242	C	332	C	**1,052**	F	**1,079**	**F**
		PM	181	C	266	C	**1,042**	F	**1,066**	**F**
4. Avenue 256: SR 63 to Road 140	Two-Lane Undivided	AM	449	C	505	C	868	D	871	D
		PM	372	C	444	C	874	D	876	D

LOS = Level of Service / BOLD denotes LOS standard has been exceeded

3.10 Queuing Analysis

Table 3-4 provides a queue length summary for left and right turn lanes at the study intersections for the Existing Plus Project, Near-Term, Cumulative Year 2040 Without Project, and the Cumulative Year 2040 With Project scenarios. The queuing analyses for the study intersections are contained in the Synchro 7 LOS worksheets found in Appendix C.

Queuing analysis was completed using information found in the Synchro outputs. Synchro provides 50th and 95th percentile maximum queue lengths in feet. The 50th percentile maximum queue is the maximum back of queue on a typical cycle and the 95th percentile queue is the maximum back of queue with 95th percentile traffic volumes. The queues shown in Table 3-4 represent the 95th percentile queue lengths for the respective lane movements. Results of the analysis shows that all study intersections have at least one (1) turn pocket storage that will be exceeded under the Cumulative 2040 With and Without Project scenarios.

TABLE 3-4

Queuing Analysis

INTERSECTION	EXISTING QUEUE STORAGE LENGTH (ft)		EXISTING PLUS PROJECT		NEAR-TERM (YEAR 2016)		CUMULATIVE YEAR 2040 WITHOUT PROJECT		CUMULATIVE YEAR 2040 WITH PROJECT	
			AM Queue	PM Queue	AM Queue	PM Queue	AM Queue	PM Queue	AM Queue	PM Queue
Road 140 / Caldwell Avenue	NB Left	150	75	162	85	193	194	461	203	469
	SB Left	125	76	116	129	151	490	380	490	380
	EB Left	100	76	229	83	263	219	460	219	460
	WB Left	50	35	39	46	54	170	322	170	322
SR 63 / Avenue 256	NB Left	275	1	3	39	68	320	544	320	544
	SB Left	500	5	6	50	75	241	188	257	201
Road 140 / Avenue 256	NB Left	175	31	19	35	41	123	161	148	183
	NB Right	175	17	23	17	23	25	24	26	25
	SB Left	150	77	55	80	63	136	131	136	131
	EB Left	250	28	15	39	25	342	233	342	233
	WB Left	425	130	57	130	62	159	91	163	94
Road 140 / SR 137	NB Left	225	26	31	34	50	63	228	63	228
	SB Left	175	138	139	179	194	349	456	351	459
	EB Left	450	157	135	197	167	383	279	399	293
	WB Left	525	30	28	44	40	198	103	198	103

Queue is measured in feet

4.0 Mitigation

This chapter describes potential improvements to mitigate the traffic impacts of the Project. Described below are potential improvements at study area intersections and segments for various scenarios that would result in acceptable levels of service. In order to mitigate the Project's impacts, it is recommended that the Project contribute traffic impact fees, as determined by Tulare County in accordance with County policy. The payment of these fees would mitigate the Project's traffic impacts to insignificant levels.

4.1 Recommended Improvements

EXISTING PLUS PROJECT CONDITIONS

For this scenario, the following improvements are recommended:

Road 140 at SR 137

- Widen the westbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 right turn lane).

NEAR-TERM (YEAR 2016) CONDITIONS

For this scenario, the following improvements are recommended:

Road 140 at SR 137

- Widen the southbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 right turn lane).
- Widen the westbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 right turn lane).

Road 140 between Caldwell Avenue and Avenue 256

- Widen the roadway segment from 2 travel lanes to 4 travels (adding 2 travel lanes)

CUMULATIVE 2040 WITHOUT PROJECT CONDITIONS

For this scenario, the following improvements are recommended:

Road 140 at Caldwell Avenue

- Widen the northbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane (adding 1 right turn lane).
- Widen the southbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane (adding 1 right turn lane).
- Widen the eastbound approach to 2 left turn lanes, 2 through lanes, and 1 right turn lane (adding 1 left

turn lane and 1 right turn lane).

- Widen the westbound approach to 2 left turn lanes, 2 through lanes, and 1 right turn lane (adding 1 left turn lane and 1 right turn lane).

SR 63 at Avenue 256

- Widen the northbound approach to 2 left turn lanes, 2 through lanes, and 1 right turn lane (adding 1 left turn lane and 1 right turn lane).
- Widen the southbound approach to 2 left turn lanes, 3 through lanes, and 1 right turn lane (adding 1 left turn lane, 1 through lane, and 1 right turn lane).
- Widen the eastbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 left turn lane and 1 right turn lane).
- Widen the westbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 left turn lane and 1 right turn lane).

Road 140 at Avenue 256

- Widen the southbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 right turn lane).
- Widen the westbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 right turn lane).

Road 140 at SR 137

- Widen the northbound approach to 1 left turn lane, 1 through lane, and 1 right turn lane (adding 1 right turn lane).
- Widen the southbound approach to 2 left turn lanes, 1 through lane, and 1 right turn lane (adding 1 left turn lane and 1 right turn lane).
- Widen the eastbound approach to 1 left turn lane, 3 through lanes, and 1 right turn lane (adding 2 through lanes and 1 right turn lane).
- Widen the westbound approach to 1 left turn lane, 3 through lanes, and 1 right turn lane (adding 2 through lanes and 1 right turn lane).

Road 140 between Caldwell Avenue and Avenue 256

- Widen the roadway segment from 2 travel lanes to 4 travels (adding 2 travel lanes)

Road 140 between Avenue 256 and SR 137

- Widen the roadway segment from 2 travel lanes to 4 travels (adding 2 travel lanes)

Avenue 256 between SR 63 and Road 140

- Widen the roadway segment from 2 travel lanes to 4 travels (adding 2 travel lanes)

CUMULATIVE 2040 WITH PROJECT CONDITIONS

For this scenario, the following additional improvements are recommended:

Road 140 at SR 137

- Widen the northbound approach to 2 left turn lanes, 1 through lane, and 1 right turn lane (adding 1 left turn lane and 1 right turn lane).

POST-MITIGATION LEVEL OF SIGNIFICANCE

The level of service resulting from the potential improvements identified above is shown in Table 4-1 for study area intersections and Table 4-2 for study segments. The post-mitigation result, once mitigation is implemented, would be less than significant. The resulting Cumulative 2040 lane geometry is shown in Figure 4-1.

In addition to the proposed improvements identified above, Table 4-3 identifies left turn and right pocket lengths required for the Cumulative Year 2040 scenario. The determination of the recommended storage length was determined by the queuing analysis shown in Chapter 3 and Chapter 400 of Caltrans' Highway Design Manual.

TABLE 4-1

Intersection Operations With Mitigation

INTERSECTION	CONTROL	PEAK HOUR	EXISTING PLUS PROJECT		NEAR-TERM (YEAR 2016)		CUMULATIVE 2040 WITHOUT PROJECT		CUMULATIVE 2040 WITH PROJECT	
			DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
1. Road 140 / Caldwell Avenue	Signalized	AM					48.2	D	48.2	D
		PM					50.7	D	51.0	D
2. SR 63 / Avenue 256	Signalized	AM					31.9	C	32.2	C
		PM					30.6	C	30.8	C
3. Road 140 / Avenue 256	Signalized	AM					45.7	D	47.3	D
		PM					36.8	D	37.8	D
4. Road 140 / SR 137	Signalized	AM	29.3	C	32.4	C	34.4	C	34.7	C
		PM	30.0	C	35.0	C	34.9	C	34.5	C

DELAY is measured in seconds

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

For signalized and all-way stop controlled intersections, delay results show the average for the entire intersection. For one-way and two-way stop controlled intersections, delay results show the delay for the

TABLE 4-2

Segment Operations With Mitigation

SEGMENT	DESCRIPTION	PEAK HOUR	NEAR-TERM (YEAR 2016)		CUMULATIVE 2040 WITHOUT PROJECT		CUMULATIVE 2040 WITH PROJECT	
			VOLUME	LOS	VOLUME	LOS	VOLUME	LOS
1. Road 140: Caldwell Avenue to Avenue 256	Four-Lane Divided	AM	905	C	1,553	C	1,573	C
		PM	970	C	1,831	C	1,850	C
2. Road 140: Avenue 256 to SR 137	Four-Lane Divided	AM			1,227	C	1,277	C
		PM			1,071	C	1,115	C
3. Avenue 256: SR 63 to Road 140	Four-Lane Divided	AM			1,052	C	1,079	C
		PM			1,042	C	1,066	C

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

TABLE 4-3

Left Turn and Right Turn Storage Requirements

INTERSECTION	EXISTING QUEUE STORAGE LENGTH (ft)		CUMULATIVE YEAR 2040 WITH PROJECT RECOMMENDED STORAGE LENGTH (ft)
Road 140 / Caldwell Avenue	NB Left	150	475
	SB Left	125	500
	EB Left	100	2 @ 250
	WB Left	50	2 @175
SR 63 / Avenue 256	NB Left	275	2 @ 275
	SB Left	500	2 @ 500
Road 140 / Avenue 256	NB Left	175	200
	NB Right	175	175
	SB Left	150	150
	EB Left	250	350
	WB Left	425	425
Road 140 / SR 137	NB Left	225	2 @ 225
	SB Left	175	2 @ 250
	EB Left	450	450
	WB Left	525	525

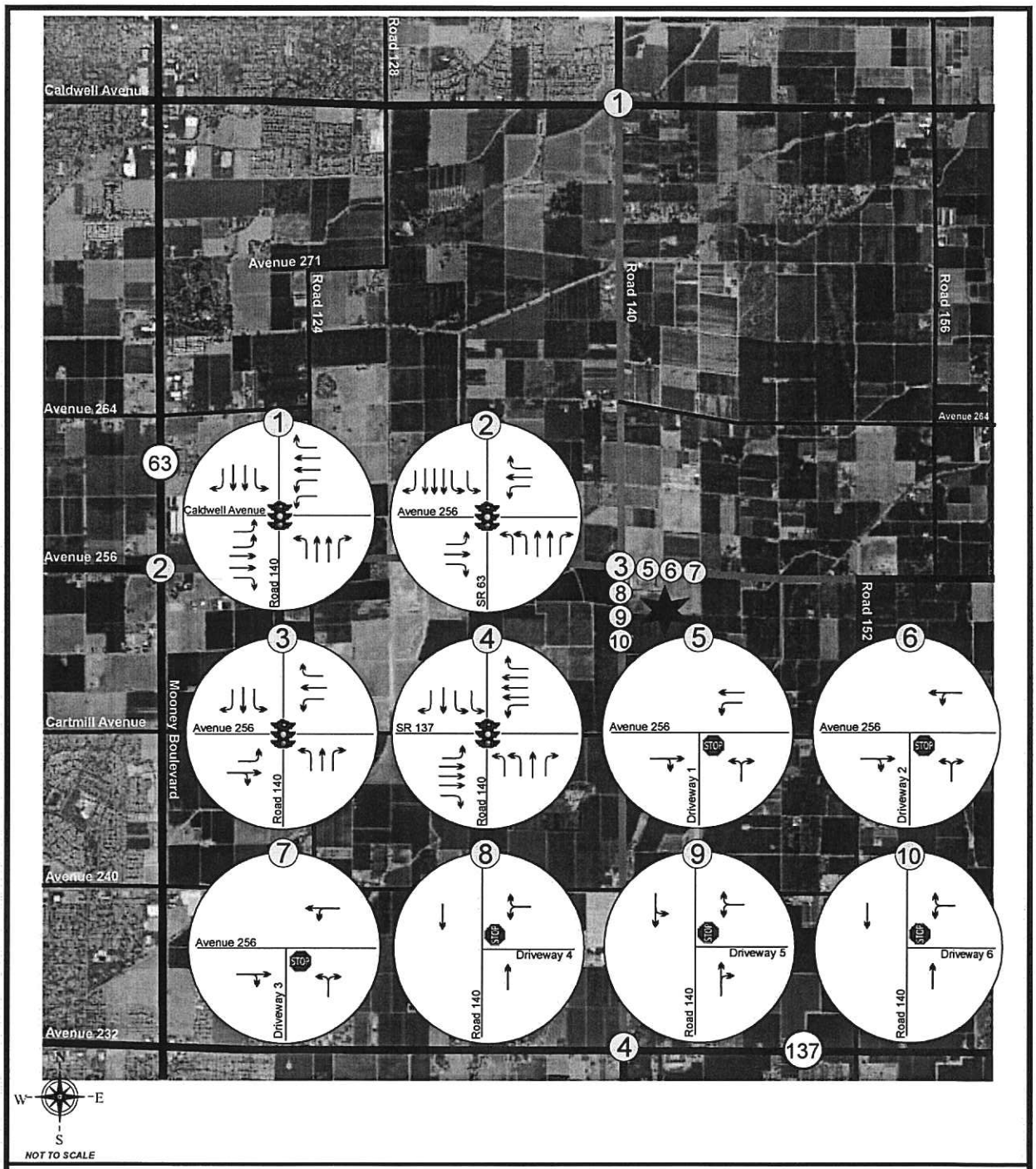

FIGURE 4-1

Cumulative 2040 Lane Geometry

LEGEND

★	Project Site		Traffic Signal	(#)	Study Intersections
↱	Mitigation	STOP	Stop Sign	▬	Study Segments

VRPA TECHNOLOGIES, INC.

4.2 Equitable Fair-Share Responsibility

According to the Caltrans "Guide for the Preparation of Traffic Impact Studies", the intent of determining the equitable responsibility for mitigation measures is to provide a starting point for early discussions to address traffic mitigation equitability and to calculate the equitable share for mitigation traffic impacts. The formula used to calculate the equitable share responsibility to Caltrans facilities is as follows:

Equitable Share = (Project Trips)/(Future Year Plus Approved Project Traffic – Existing Traffic)

Table 4-4 shows the equitable share responsibility to Caltrans, Tulare County, and City of Visalia facilities for 2040 conditions.

TABLE 4-4

Equitable Fair-Share Responsibility

INTERSECTION	EXISTING 2013	PROJECT TRIPS	CUMULATIVE 2040 WITH PROJECT	FAIR SHARE PERCENTAGE
Road 140 / Caldwell Avenue	1,878	18	4,766	0.6%
SR 63 / Avenue 256	1,769	24	4,247	1.0%
Road 140 / Avenue 256	1,079	50	2,340	4.0%
Road 140 / SR 137	1,176	15	3,919	0.5%
SEGMENTS				
Road 140: Caldwell Avenue to Avenue 256	835	19	1,850	1.9%
Road 140: Avenue 256 to SR 137	743	50	1,277	9.4%
Avenue 256: SR 63 to Road 140	215	27	1,079	3.1%

Appendix G
Cultural Historical Resources Information System

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

FRESNO KERN KINGS MADERA TULARE

Southern San Joaquin Valley Information Center
California State University, Bakersfield
Mail Stop: 46 MEC
9001 Stockdale Highway
Bakersfield, California 93311-1022
(661) 654-2289 FAX (661) 654-2415
E-mail: ssjvic@csub.edu

TO: Aaron Bock, Planner IV
Tulare County Resource Management Agency
5961 Mooney Blvd.
Visalia, CA 93277

(RS# 13-275)

AUG 2013
RECEIVED
RESOURCE MANAGEMENT AGENCY

DATE: July 31, 2013

RE: Tulare County Transit, Maintenance, and Operation Facility

County: Tulare

MAP(s): Cairns Corner, Exeter, Tulare, & Visalia 7.5's

CULTURAL RESOURCES RECORDS SEARCH

The following are the results of a search of the cultural resources files at the Southern San Joaquin Valley Information Center. These files include known and recorded cultural resources sites, inventory and excavation reports filed with this office, and resources listed on the National Register of Historic Places, Historic Property Data File (3/18/13), California State Historical Landmarks, California Register, California Inventory of Historic Resources, and California Points of Historical Interest.

PRIOR CULTURAL RESOURCE STUDIES CONDUCTED WITHIN THE PROJECT AREA AND A ONE MILE RADIUS

According to the information in our files, there has been one (1) previous cultural resource studies conducted within a portion of the project area, TU-00148. There have been three (3) additional studies conducted within a one mile radius, TU-00102, 00145, and 01479

KNOWN/RECORDED CULTURAL RESOURCES WITHIN THE PROJECT AREA AND A ONE MILE RADIUS

There are no recorded cultural resources within project area or within a one mile radius and it is not known if any exist there. Please note that no data does not mean negative data.

(RS# 13-275)

There are no cultural resources within the project area or radius that are listed on the National Register of Historic Places, the California Register, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

COMMENTS/RECOMMENDATIONS

We understand this project consists of expanding Road Yard facilities to currently vacant and undeveloped land. The cultural resource study done on a portion of this property was conducted in 1976. Due to changes in field methods and technology, the information center routinely recommends a new study be conducted if the previous one is more than five to seven years old. Therefore, prior to any ground disturbing activities, we recommend a qualified, professional archaeologist conduct a field survey of all vacant and undeveloped lands in the project area to determine if cultural resources are present. If you have any questions or need any additional information, please contact our office at (661) 654-2289.

By:

Celeste M. Thomson, MBA
Assistant Coordinator

Date: July 31, 2013

Fee: $150.00/hr. (Standard Service)

Please note that invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.

Appendix H
GHG Emission Reduction Measures - Development Projects

Final Draft Staff Report

Appendix J: GHG Emission Reduction Measures - Development Projects

GHG Emission Reduction Measures						
MEASURE #	***Measure Name***	***Commercial***	***Mixed-Use***	***Residential***	***Estimated CO_2 Equivalent Point Reductions***	***Measure Description***
Bicycle/Pedestrian/Transit Measures						
1	**Bike parking**	C	M	~	0.625	Non-residential projects provide plentiful short-term and long-term bicycle parking facilities to meet peak season maximum demand. Short term facilities are provided at a minimum ratio of one bike rack space per 20 vehicle spaces. Long-term facilities provide a minimum ratio of one long-term bicycle storage space per 20 **employee** parking spaces.
2	**End of trip facilities**	C	M	~	0.625	Non-residential projects provide "end-of-trip" facilities including showers, lockers, and changing space. Facilities shall be provided in the following ratio: four clothes lockers and one shower provided for every 80 employee parking spaces. For projects with 160 or more employee parking spaces, separate facilities are required for each gender.
3	**Bike parking at multi-unit residential**	~	~	R	0.625	Long-term bicycle parking is provided at apartment complexes or condominiums without garages. Project provides one long-term bicycle parking space for each unit without a garage. Long-term facilities shall consist of one of the following: a bicycle locker, a locked room with standard racks and access limited to bicyclists only, or a standard rack in a location that is staffed and/or monitored by video surveillance 24 hours per day.
4	**Proximity to bike path/bike lanes**	C	M	R	0.625	Entire project is located within 1/2 mile of an existing Class I or Class II bike lane and project design includes a comparable network that connects the project uses to the existing offsite facility. Existing facilities are defined as those facilities that are physically constructed and ready for use prior to the first 20% of the projects occupancy permits being granted. Project design includes a designated bicycle route connecting all units, on-site bicycle parking facilities, offsite bicycle facilities, site entrances, and primary building entrances to existing Class I or Class II bike lane(s) within 1/2 mile. Bicycle route connects to all streets contiguous with project site. Bicycle route has minimum conflicts with automobile parking and circulation facilities. All streets internal to the project wider than 75 feet have class II bicycle lanes on both sides.
5	**Pedestrian network**	C	M	R	1	The project provides a pedestrian access network that internally links all uses and connects to **existing** external streets and pedestrian facilities. Existing facilities are defined as those facilities that are physically constructed and ready for use prior to the first 20% of the projects occupancy permits being granted.

MEASURE #	Measure Name	Commercial	Mixed-Use	Residential	Estimated CO_2 Equivalent Point Reductions	Measure Description
5a	**Pedestrian Network**	C	M	R	0.5	The project provides a pedestrian access network that internally links all uses for connecting to **planned** external streets and pedestrian facilities (facilities must be included pedestrian master plan or equivalent).
6	**Pedestrian barriers minimized**	C	M	R	1	Site design and building placement minimize barriers to pedestrian access and interconnectivity. Physical barriers such as walls, berms, landscaping, and slopes between residential and non-residential uses that impede bicycle or pedestrian circulation are eliminated. Barriers to pedestrian access of neighboring facilities and sites are minimized. This measure is not meant to prevent the limited use of barriers to ensure public safety by prohibiting access to hazardous areas, etc...
7	**Bus shelter for existing transit service**	C	M	R	0.5	Bus or Streetcar service provides headways of one hour or less for stops within 1/4 mile; project provides safe and convenient bicycle/pedestrian access to transit stop(s) and provides essential transit stop improvements (i.e., shelters, route information, benches, and lighting).
8	**Bus shelter for planned transit service**	C	M	R	0.25	Project provides transit stops with safe and convenient bicycle/pedestrian access. Project provides essential transit stop improvements (i.e., shelters, route information, benches, and lighting) in anticipation of future transit service. If measure 7 is selected, it excludes this measure.

MEASURE #	Measure Name	Commercial	Mixed-Use	Residential	Estimated CO_2 Equivalent Point Reductions	Measure Description
9	**Traffic calming**	C	M	R	see table in Measure Description	Project design includes pedestrian/bicycle safety and traffic calming measures in excess of jurisdiction requirements. Roadways are designed to reduce motor vehicle speeds and encourage pedestrian and bicycle trips by featuring traffic calming measures. Traffic calming measures include: bike lanes, center islands, closures (cul-de-sacs), diverters, education, forced turn lanes, roundabouts, speed humps, etc... Percent of Streets with Improvements

		Percent of Streets with Improvements			
		25%	50%	75%	100%
Percent of **Intersections** with Improvements	25%	**0.25**	**0.25**	**0.5**	**0.5**
	50%	**0.25**	**0.5**	**0.5**	**0.75**
	75%	**0.5**	**0.5**	**0.75**	**0.75**
	100%	**0.5**	**0.75**	**0.75**	**1.0**

MEASURE #	Measure Name	Commercial	Mixed-Use	Residential	Estimated CO_2 Equivalent Point Reductions	Measure Description
Parking Measures						
10	**Paid parking**	C	M	R	see below	Employee and/or customer paid parking system
10a	**Paid Parking - Urban site within 1/4 mile from transit stop**	C	M	R	5	Employee and/or customer paid parking system. Daily charge for parking must be equal to or greater than the cost of a local transit pass + 20%. Monthly charge for parking must be equal to or greater than the cost of a local monthly transit pass, plus 20%.
10b	**Paid Parking- Urban site greater than 1/4 mile from transit stop**	C	M	R	1.50	Employee and/or customer paid parking system. Daily charge for parking must be equal to or greater than the cost of a local transit pass + 20%. Monthly charge for parking must be equal to or greater than the cost of a local monthly transit pass, plus 20%.
10c	**Paid Parking- Suburban site within 1/4 mile of transit stop**	C	M	R	2	Employee and/or customer paid parking system. Daily charge for parking must be equal to or greater than the cost of a local transit pass + 20%. Monthly charge for parking must be equal to or greater than the cost of a local monthly transit pass, plus 20%.
10d	**Paid Parking- Suburban site greater than 1/4 mile from transit stop**	C	M	R	1	Employee and/or customer paid parking system. Daily charge for parking must be equal to or greater than the cost of a local transit pass + 20%. Monthly charge for parking must be equal to or greater than the cost of a local monthly transit pass, plus 20%.
10e	**Parking cash out**	C	M		0.6	Employer provides employees with a choice of forgoing subsidized parking for a cash payment equivalent to the cost of the parking space to the employer.

MEASURE #	Measure Name	Commercial	Mixed-Use	Residential	Estimated CO_2 Equivalent Point Reductions	Measure Description
11	**Minimum parking**	C	M	R	3	Provide minimum amount of parking required. Special review of parking required. If zoning codes in the San Joaquin Valley area have provisions that allow a project to build less than the typically mandated amount of parking if the development features design elements that reduce the need for automobile use. This measure recognizes the air quality benefit that results when facilities minimize parking needs, and grants mitigation value to project that implement all available parking reductions. Once land uses are determined, the trip reduction factor associated with this measure can be determined by utilizing the Institute of Transportation Engineers (ITE) Parking generation publication. The reduction in trips can be computed as shown below by the ratio of the difference of minimum parking required by code and ITE peak parking demand to ITE peak parking demand for the land uses multiplied by 50%. The maximum achievable trip reduction is 6%. For projects where retail space occupies 50% or more of the total built space, do not use December specific parking generation rates (from ITE). Percent Trip Reduction = 50*[(min parking required by code - ITE peak parking demand) / (ITE peak parking demand)].
12	**Parking reduction beyond code**	C	M	R	6	Provide parking reduction less than code. Special review of parking required. Recommend a Shared Parking strategy. Trip reductions associated with parking reductions beyond code shall be computed in the same manner as described under measure 11, as the same methodology applies. The maximum achievable trip reduction is 12%. This measure can be readily implemented through a Shared Parking strategy, wherein parking is utilized jointly among different land uses, buildings, and facilities in an area that experience peak parking needs at different times of day and day of the week. For example, residential uses and/or restaurant/retail uses, which experience peak parking demand during the evening/night and on the weekends, arrange to share parking facilities with office and/or educational uses, which experience peak demand during business hours and during the week.
13	**Pedestrian pathway through parking**	C	M	R	0.5	Provide a parking lot design that includes clearly marked and shaded pedestrian pathways between transit facilities and building entrances. Pathway must connect to all transit facilities internal or adjacent to project site. Site plan should demonstrate how the pathways are clearly marked, shaded, and are placed between transit facilities and building entrances.

MEASURE #	Measure Name	Commercial	Mixed-Use	Residential	Estimated CO_2 Equivalent Point Reductions	Measure Description
14	**Off street parking**	C	M	R	see below	Parking facilities are not adjacent to street frontage
14a	**Off street parking**	C	M	R	1.5	For 1.5% reduction, parking facilities shall not be sited adjacent to public roads contiguous with project site. Functioning pedestrian entrances to major site uses are located along street frontage. Parking facilities do not restrict pedestrian, bicycle, or transit access from adjoining uses. Proponent shall provide information demonstrating compliance with measure requirements including, but not limited to, a description of where parking is located relative to the buildings on the site, site plans, maps, or other graphics, which demonstrate the placement of parking facilities behind on-site buildings relative to streets contiguous with the project site. Surrounding uses should be high density or mixed-use, there shall be other adjoining pedestrian and bicycle connections, such as wide sidewalks and bike lanes, and surrounding uses shall also implement measure 15.
14b	**Off street parking**	C	M	R	1	For 1.0% reduction, (parking structures only) proponent must show that parking facilities that face street frontage feature ground floor retail along street frontage. Proponent shall provide information demonstrating compliance with measure requirements including, but not limited to, a written description of the parking facility and the amount of retail space on the ground floor, site plans, maps, or other graphics demonstrating the placement of retail/commercial space along all street fronts contiguous with parking structure.
14c	**Off street parking**	C	M	R	0.1	For 0.1% reduction, the project is not among high-density or mixed uses, is not connected to pedestrian or bicycle access ways, or is among uses that do not also hide parking. This point value is reflective of the importance that other pedestrian and density measures be in place in order for this measure to be effective.

MEASURE #	Measure Name	Commercial	Mixed-Use	Residential	Estimated CO_2 Equivalent Point Reductions	Measure Description
Site Design Measures						
15	**Office/Mixed-Use proximate to transit**	C	M	~	see below	Mitigation value is based on project density and proximity to transit. Planned transit must be in MTP or RT Master Plan. To count as "existing transit" service must be fully operational prior to the first 20% of the projects occupancy permits being granted. Project must provide safe and convenient pedestrian and bicycle access to all transit stops within 1/4 mile. Proponent shall provide information demonstrating compliance with measure requirements including, but not limited to, a written description of how the project complies with the measure, a map or graphic depicting the location of the project in relation to the transit stop. Graphic should demonstrate a 1/4 mile radius, arc, from transit and planned pathways and linkages to the transit stop. Proponent shall also provide graphics depicting the size and layout of the building as well as the calculations demonstrating the FAR (floor to area ratio).
15a	**Office/Mixed-Use proximate to Planned Light Rail Transit**	C	M	~	0.4	0.75-1.5 FAR (Floor to Area Ratio)
		C	M	~	0.5	1.5-2.25 FAR (Floor to Area Ratio)
		C	M	~	0.75	2.25 or greater FAR (Floor to Area Ratio)
15b	**Office/Mixed-Use proximate to Planned Bus Rapid Transit**	C	M	~	0.2	0.75-1.5 FAR (Floor to Area Ratio)
		C	M	~	0.25	1.5-2.25 FAR (Floor to Area Ratio)
		C	M	~	0.3	2.25 or greater FAR (Floor to Area Ratio)

MEASURE #	Measure Name	Commercial	Mixed-Use	Residential	Estimated CO_2 Equivalent Point Reductions	Measure Description
15c	**Office/Mixed-Use proximate to Existing Light Rail Transit**	C	M	~	0.75	0.75-1.5 FAR (Floor to Area Ratio)
		C	M	~	1	1.5-2.25 FAR (Floor to Area Ratio)
		C	M	~	1.5	2.25 or greater FAR (Floor to Area Ratio)
15d	**Office/Mixed-Use proximate to Existing Bus Rapid Transit**	C	M	~	0.4	0.75-1.5 FAR (Floor to Area Ratio)
		C	M	~	0.5	1.5-2.25 FAR (Floor to Area Ratio)
		C	M	~	0.75	2.25 or greater FAR (Floor to Area Ratio)
16	**Orientation toward existing transit, bikeway, or pedestrian corridor**	C	M	R	0.5	Project is oriented towards existing transit, bicycle, or pedestrian corridor. Setback distance is minimized. Setback distance between project and adjacent uses is reduced to the minimum allowed under jurisdiction code. Setback distance between different buildings on project site is reduced to the minimum allowed under jurisdiction code. Setbacks between project buildings and sidewalks is reduced to the minimum allowed under jurisdiction code. Buildings are oriented towards street frontage. Primary entrances to buildings are located along public street frontage. Project provides bicycle access to existing bicycle corridor. Project provides access to existing pedestrian corridor. (Cannot get points for both this measure and measure 17)

MEASURE #	Measure Name	Commercial	Mixed-Use	Residential	Estimated CO_2 Equivalent Point Reductions	Measure Description
17	**Orientation toward planned transit, bikeway, or pedestrian corridor**	C	M	~	0.25	Project is oriented towards planned transit, bicycle, or pedestrian corridor. Setback distance is minimized. Planned transit, bicycle or pedestrian corridor must be in the MTP, RT Master Plan, General Plan, or Community Plan. Setback distance between project and existing or planned adjacent uses is minimized or non-existent. Setback distance between different buildings on project site is minimized. Setbacks between project buildings and planned or existing sidewalks are minimized. Buildings are oriented towards existing or planned street frontage. Primary entrances to buildings are located along planned or existing public street frontage. Project provides bicycle access to any planned bicycle corridor(s). Project provides pedestrian access to any planned pedestrian corridor(s).
18	**Residential Density With <u>No Transit</u>**	~	~	R	see below	Project provides high-density residential development. Mitgation value is based on project density with **no transit.** Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area.
-	**3-6 Du/acre**	~	~	R	0	Project provides high-density residential development. Mitgation value is based on project density with **no transit.** Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area.
-	**7-10 Du/acre**	~	~	R	1	Project provides high-density residential development. Mitgation value is based on project density with **no transit.** Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area.

MEASURE #	Measure Name	Commercial	Mixed-Use	Residential	Estimated CO_2 Equivalent Point Reductions	Measure Description
-	**11-20 Du/acre**	~	~	R	3	Project provides high-density residential development. Mitgation value is based on project density with **no transit.** Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area.
-	**21-30 Du/Acre**	~	~	R	5	Project provides high-density residential development. Mitgation value is based on project density with **no transit.** Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area.
-	**31-40 Du/acre**	~	~	R	6	Project provides high-density residential development. Mitgation value is based on project density with **no transit.** Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area.
-	**41-50 Du/acre**	~	~	R	8	Project provides high-density residential development. Mitgation value is based on project density with **no transit.** Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area.
-	**50+ Du/acre**	~	~	R	10	Project provides high-density residential development. Mitgation value is based on project density with **no transit.** Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area.

MEASURE #	Measure Name	Commercial	Mixed-Use	Residential	Estimated CO_2 Equivalent Point Reductions	Measure Description
18a	**Residential density With Planned Light Rail Transit**	~	~	R	see below	Project provides high-density residential development. Mitgation value is based on project density and proximity to **planned light rail** transit. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border. Planned transit must be in a MTP or RT Master Plan.
-	**3-6 Du/acre**	~	~	R	0	Project provides high-density residential development. Mitgation value is based on project density and proximity to **planned light rail** transit. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border. Planned transit must be in a MTP or RT Master Plan.
-	**7-10 Du/acre**	~	~	R	1.75	Project provides high-density residential development. Mitgation value is based on project density and proximity to **planned light rail** transit. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border. Planned transit must be in a MTP or RT Master Plan.
-	**11-20 Du/acre**	~	~	R	3.75	Project provides high-density residential development. Mitgation value is based on project density and proximity to **planned light rail** transit. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border. Planned transit must be in a MTP or RT Master Plan.

MEASURE #	Measure Name	Commercial	Mixed-Use	Residential	Estimated CO_2 Equivalent Point Reductions	Measure Description
-	**21-30 Du/Acre**	~	~	R	5.75	Project provides high-density residential development. Mitgation value is based on project density and proximity to **planned light rail** transit. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border. Planned transit must be in a MTP or RT Master Plan.
-	**31-40 Du/acre**	~	~	R	6.75	Project provides high-density residential development. Mitgation value is based on project density and proximity to **planned light rail** transit. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border. Planned transit must be in a MTP or RT Master Plan.
-	**41-50 Du/acre**	~	~	R	8.75	Project provides high-density residential development. Mitgation value is based on project density and proximity to **planned light rail** transit. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border. Planned transit must be in a MTP or RT Master Plan.
-	**50+ Du/acre**	~	~	R	10.75	Project provides high-density residential development. Mitgation value is based on project density and proximity to **planned light rail** transit. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border. Planned transit must be in a MTP or RT Master Plan.

MEASURE #	Measure Name	Commercial	Mixed-Use	Residential	Estimated CO_2 Equivalent Point Reductions	Measure Description
18b	**Residential Density with Planned Bus Rapid Transit**	~	~	R	see below	Project provides high-density residential development. Mitgation value is based on project density and proximity to **planned bus rapid transit.** Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border. Planned transit must be in a MTP or RT Master Plan.
-	**3-6 Du/acre**	~	~	R	0	Project provides high-density residential development. Mitgation value is based on project density and proximity to **planned bus rapid transit.** Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border. Planned transit must be in a MTP or RT Master Plan.
-	**7-10 Du/acre**	~	~	R	1.25	Project provides high-density residential development. Mitgation value is based on project density and proximity to **planned bus rapid transit.** Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border. Planned transit must be in a MTP or RT Master Plan.
-	**11-20 Du/acre**	~	~	R	3.25	Project provides high-density residential development. Mitgation value is based on project density and proximity to **planned bus rapid transit.** Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border. Planned transit must be in a MTP or RT Master Plan.

MEASURE #	Measure Name	Commercial	Mixed-Use	Residential	Estimated CO_2 Equivalent Point Reductions	Measure Description
-	**21-30 Du/Acre**	~	~	R	5.25	Project provides high-density residential development. Mitgation value is based on project density and proximity to **planned bus rapid transit**. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border. Planned transit must be in a MTP or RT Master Plan.
-	**31-40 Du/acre**	~	~	R	6.25	Project provides high-density residential development. Mitgation value is based on project density and proximity to **planned bus rapid transit**. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border. Planned transit must be in a MTP or RT Master Plan.
-	**41-50 Du/acre**	~	~	R	8.25	Project provides high-density residential development. Mitgation value is based on project density and proximity to **planned bus rapid transit**. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border. Planned transit must be in a MTP or RT Master Plan.
-	**50+ Du/acre**	~	~	R	10.25	Project provides high-density residential development. Mitgation value is based on project density and proximity to **planned bus rapid transit**. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border. Planned transit must be in a MTP or RT Master Plan.

MEASURE #	Measure Name	Commercial	Mixed-Use	Residential	Estimated CO_2 Equivalent Point Reductions	Measure Description
18c	**Residential Density with Existing Light Rail Transit**	~	~	R	see below	Project provides high-density residential development. Mitgation value is based on project density and proximity to **existing light rail** transit. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Existing transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border.
-	**3-6 Du/acre**	~	~	R	0	Project provides high-density residential development. Mitgation value is based on project density and proximity to **existing light rail** transit. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Existing transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border.
-	**7-10 Du/acre**	~	~	R	2.5	Project provides high-density residential development. Mitgation value is based on project density and proximity to **existing light rail** transit. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Existing transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border.
-	**11-20 Du/acre**	~	~	R	4.5	Project provides high-density residential development. Mitgation value is based on project density and proximity to **existing light rail** transit. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Existing transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border.
-	**21-30 Du/Acre**	~	~	R	6.5	Project provides high-density residential development. Mitgation value is based on project density and proximity to **existing light rail** transit. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Existing transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border.

MEASURE #	Measure Name	Commercial	Mixed-Use	Residential	Estimated CO_2 Equivalent Point Reductions	Measure Description
-	**31-40 Du/acre**	~	~	R	7.5	Project provides high-density residential development. Mitgation value is based on project density and proximity to **existing light rail** transit. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Existing transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border.
-	**41-50 Du/acre**	~	~	R	9.5	Project provides high-density residential development. Mitgation value is based on project density and proximity to **existing light rail** transit. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Existing transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border.
-	**50+ Du/acre**	~	~	R	11.5	Project provides high-density residential development. Mitgation value is based on project density and proximity to **existing light rail** transit. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Existing transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border.
18d	**Residential Density with Existing Bus Rapid Transit**	~	~	R	see below	Project provides high-density residential development. Mitgation value is based on project density and proximity to **existing bus rapid** transit. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Existing transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border.
-	**3-6 Du/acre**	~	~	R	0	Project provides high-density residential development. Mitgation value is based on project density and proximity to **existing bus rapid** transit. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Existing transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border.
-	**7-10 Du/acre**	~	~	R	2	Project provides high-density residential development. Mitgation value is based on project density and proximity to **existing bus rapid** transit. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Existing transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border.

MEASURE #	Measure Name	Commercial	Mixed-Use	Residential	Estimated CO_2 Equivalent Point Reductions	Measure Description
-	**11-20 Du/acre**	~	~	R	4	Project provides high-density residential development. Mitgation value is based on project density and proximity to **existing bus rapid** transit. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Existing transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border.
-	**21-30 Du/Acre**	~	~	R	6	Project provides high-density residential development. Mitgation value is based on project density and proximity to **existing bus rapid** transit. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Existing transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border.
-	**31-40 Du/acre**	~	~	R	7	Project provides high-density residential development. Mitgation value is based on project density and proximity to **existing bus rapid** transit. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Existing transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border.
-	**41-50 Du/acre**	~	~	R	9	Project provides high-density residential development. Mitgation value is based on project density and proximity to **existing bus rapid** transit. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Existing transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border.
-	**50+ Du/acre**	~	~	R	11	Project provides high-density residential development. Mitgation value is based on project density and proximity to **existing bus rapid** transit. Density is calculated by determining the number of units per acre ("du/acre") within the residential portion of the project's net lot area. Existing transit facilities must be within 1/4 mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 1/4 mile of project border.

MEASURE #	Measure Name	Commercial	Mixed-Use	Residential	Estimated CO_2 Equivalent Point Reductions	Measure Description
19	Street grid	C	M	R	1	Multiple and direct street routing (grid style). The measure applies to projects with an internal connectivity factor (CF)>=0.80, and average of 1/4 mile or less between external connections along perimeter of project. [CF=# of intersections / (# of cul-de-sacs + intersections)]
20	Neighborhood Electric Vehicle access	C	M	R	see below	Make physical development consistent with requirements for neighborhood electric vehicles (NEV). Current studies show that for most trips, NEVs do not replace gas,fueled vehicles as the primary vehicle. For the purpose of providing incentives for developers to promote NEV use, assume the percent reductions noted below.
20a	Neighborhood Electric Vehicle access	C	M	R	1.5	For 1.5% reduction, a neighborhood shall have internal NEV connections and connections to other existing NEV networks serving all other types of uses.
20b	Neighborhood Electric Vehicle access	C	M	R	1	For 1.0% reduction, a neighborhood shall have internal and external connections to surrounding neighborhoods.
20c	Neighborhood Electric Vehicle access	C	M	R	0.5	For 0.5% reduction, a neighborhood has internal connections only.
21	Affordable Housing Component	~	~	R	see below	Residential development projects of 5 or more dwelling units provide a deed-restricted low-income housing component on-site (as defined in Ch 22.35 of Sacramento County Ordinance Code) [Developers who pay into In-Lieu Fee Programs are not considered eligible to receive credit for this measure]. Percent reductions shall be calculated according to the following formula: % reduction=% units deed-restricted below the market rate housing *0.04
21a	Affordable Housing Component	~	~	R	0.6	Reductions apply if 15% of units are deed-restricted below the market housing rate.

MEASURE #	Measure Name	Commercial	Mixed-Use	Residential	Estimated CO_2 Equivalent Point Reductions	Measure Description
21b	Affordable Housing Component	~	~	R	0.8	Reductions apply if 20% of units are deed-restricted below the market housing rate.
21c	Affordable Housing Component	~	~	R	1.2	Reductions apply if 30% of units are deed-restricted below the market housing rate.
21d	Affordable Housing Component	~	~	R	1.6	Reductions apply if 40% of units are deed-restricted below the market housing rate.
21e	Affordable Housing Component	~	~	R	2	Reductions apply if 50% of units are deed-restricted below the market housing rate.
21f	Affordable Housing Component	~	~	R	2.4	Reductions apply if 60% of units are deed-restricted below the market housing rate.
21g	Affordable Housing Component	~	~	R	2.8	Reductions apply if 70% of units are deed-restricted below the market housing rate.
21h	Affordable Housing Component	~	~	R	3.2	Reductions apply if 80% of units are deed-restricted below the market housing rate.

MEASURE #	Measure Name	Commercial	Mixed-Use	Residential	Estimated CO_2 Equivalent Point Reductions	Measure Description
21i	Affordable Housing Component	~	~	R	3.6	Reductions apply if 90% of units are deed-restricted below the market housing rate.
21j	Affordable Housing Component	~	~	R	4	Reductions apply if 100% of units are deed-restricted below the market housing rate.
Mixed-Use Measures						
22	Urban Mixed-Use Measure	~	M	~	see below	Development of projects predominantly characterized by properties on which various uses, such as office, commercial, institutional, and residential are combined in a single building or on a single site in an integrated development project with functional inter-relationships and a coherent physical design. Mitigation points for this measure depend on job to housing ratio.
22a	Urban Mixed-Use Measure	~	M	~	3	Reductions apply if the ratio (jobs:houses) is ≥ .5 < 1.0
22b	Urban Mixed-Use Measure	~	M	~	6.6	Reductions apply if the ratio (jobs:houses) is ≥ 1 < 1.5
22c	Urban Mixed-Use Measure	~	M	~	9	Reductions apply if the ratio (jobs:houses) is ≥ 1.5 < 2.0
22d	Urban Mixed-Use Measure	~	M	~	7.29	Reductions apply if the ratio (jobs:houses) is ≥ 2.0 < 2.5

MEASURE #	Measure Name	Commercial	Mixed-Use	Residential	Estimated CO_2 Equivalent Point Reductions	Measure Description
22e	Urban Mixed-Use Measure	~	M	~	6	Reductions apply if the ratio (jobs:houses) is ≥ 2.5 < 3.0
22f	Urban Mixed-Use Measure	~	M	~	5	Reductions apply if the ratio (jobs:houses) is ≥ 3.0< 3.5
22g	Urban Mixed-Use Measure	~	M	~	4.2	Reductions apply if the ratio (jobs:houses) is ≥3.5 ≤ 4.0
23	Suburban mixed-use	C	M	R	3	Have at least three of the following on site and/or offsite within ¼ mile: Residential Development, Retail Development, Park, Open Space, or Office.
24	Other mixed-use	~	M	R	1	All residential units are within ¼ mile of parks, schools or other civic uses.
Building Component Measures						
25	Energy Star roof	C	M	R	0.5	Install Energy Star labeled roof materials. Energy star qualified roof products reflect more of the sun's rays, decreasing the amount of heat transferred into a building.
26	Onsite renewable energy system	C	M	R	1	Project provides onsite renewable energy system(s).
27	Exceed title 24	C	M	R	1	Project Exceeds title 24 requirements by 20%

MEASURE #	Measure Name	Commercial	Mixed-Use	Residential	Estimated CO_2 Equivalent Point Reductions	Measure Description
28	**Solar orientation**	~	~	R	0.5	Orient 75 or more percent of homes and/or buildings to face either north or south (within 30 degrees of North or South). Building design includes roof overhangs that are sufficient to block the high summer sun, but not the lower winter sun, from penetrating south facing windows. Trees, other landscaping features and other buildings are sited in such a way as to maximize shade in the summer and maximize solar access to walls and windows in the winter.
29	**Non-Roof Surfaces**	C	M	R	1	Provide shade (within 5 years) and/or use light-colored/high-albedo materials (reflectance of at least 0.3) and/or open grid pavement for at least 30% of the site's non-roof impervious surfaces, including parking lots, walkways, plazas, etc.; OR place a minimum of 50% of parking spaces underground or covered by structured parking; OR use an open-grid pavement system (less than 50% impervious) for a minimum of 50% of the parking lot area. Unshaded parking lot areas, driveways, fire lanes, and other paved areas have a minimum albedo of .3 or greater
30	**Green Roof**	C	M	R	0.5	Install a vegetated roof that covers at least 50% of roof area. Project should demonstrate detailed graphics depicting the planned roof, detailed information on maintenance requirements for the roof, and the facilities plan for maintaining the roof post construction.
TDM and Misc. Measures						
31	**Electric lawnmower**	~	~	R	1	Provide a complimentary electric lawnmower to each residential buyer

Additional GHG Emission Reduction Measures Requiring Additional Investigation			
1	**Bike Lane Street Design**		Incorporate bicycle lanes and routes into street systems, new subdivisions, and large developments.
2	**Bike & pedestrian design**		Include pedestrian and bicycle-only streets and plazas within developments. Create travel routes that ensure that destinations may be reached conveniently by public transportation, bicycling or walking.
3	**School siting**		Site schools to increase the potential for students to walk and bike to school.
4	**Transit street design**		The project will provide for on-site road and off-site bus turnouts, passenger benches, and shelters as demand and service routes warrant subject to review and approval by local transportation planning agencies.
5	**Site design measures**		Site design to minimize th need for external trips by including services/facilities for day care, banking/ATM, restaurants, vehicle refueling, and shopping.
6	**Other mixed-use**		All residential units are within 1/4 mile of parks, schools or other civic uses.
7	**Mixed-Use**		Include mixed-use, infill, and higher density in development projects to support the reduction of vehicle trips, promote alternatives to individual vehicle travel, and promote efficient delivery of services and goods.
8	**Open Space**		Preserve and create open space and parks. Preserve existing trees, and plant replacement trees at a set ratio.
9	**Natural Gas Stove**		Project features only natural gas or electric stoves in residences.
10	**Solar Design**		Incorporate appropriate passive solar design and solar heaters.
11	**Vehicle Idling**		Limit idling time for commercial vehicles, including delivery and construction vehicles.
12	**Ride Sharing Programs**		Create car sharing programs. Accommodations for such programs include providing parking spaces for the car share vehicles at convenient locations accessible by public transportation.
13	**Shuttle Service**		Provide shuttle service to public transit.

14	**School Bus Services**		Work with the school district to restore or expand school bus services.
15	**Shuttle Bus Services**		Operation of a shuttle bus to shopping, health care, public services sites and other nearby trip attactors to reduce automobile use.
16	**Energy efficient appliances**		Install energy efficient heating and cooling systems, appliances and equipment, and control systems.
17	**Renewable Energy Use**		Install solar, wind, and geothermal power systems and solar hot water heaters. Educate consumers about existing incentives.
18	**Solar Panels in Parking areas**		Install solar panels on carports and over parking areas.
19	**Photovoltaic Roofing Tiles**		Install Photovoltaic roofing tiles for solar power.
20	**Tree Planting**		Protect existing trees and encourage the planting of new trees. Adopt a tree protection and replacement ordinance, e.g., requiring that trees larger than a specified diameter that are removed to accommodate development must be replaced at a set ratio.
21	**Local Farmer's Market**		Project shall dedicate space in a centralized, accessible location for a weekly farmers' market.
22	**Community Gardens**		Project shall dedicate space for community gardens.
23	**Best management practices**		Require best management practices in agriculture and animal operations to reduce emissions, conserve energy and water, and utilize alternative energy sources, including biogas, wind and solar.
24	**Land Use Density**		The project should provide densities of nine units per acre or greater, where allowed by the General Plan and/or Zone Plan, along bus routes and at bus stops to encourage transit use, where feasible.
25	**Zero Emission Infrastructure**		Provide the necessary facilities and infrastructure to encourage the use of low or zero-emission vehicles (e.g., electric vehicle charging facilities and conveniently located alternative fueling stations).
26	**Low carbon fuel incentive program**		Institute a low-carbon fuel vehicle incentive program.

Appendix I

Comments from Central Valley Regional Water Quality Control Board

October 30, 2013

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

30 October 2013

NOV 2013
RECEIVED
RESOURCE
MANAGEMENT
AGENCY

Hector Guerra
Tulare County Resource Management Agency
5961 S. Mooney Blvd.
Visalia, CA 93277

COMMENTS ON DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION FOR THE PROPOSED EXPANSION OF THE TULARE COUNTY CENTRAL ROAD YARD, TULARE COUNTY, STATE CLEARINGHOUSE No. 2013101054

On 21 October 2013, Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff received a draft Initial Study/Mitigated Negative Declaration (IS/MND) for the above-referenced project (Project). The draft IS/MND was prepared by Tulare County Resource Management Agency. We recommend that Tulare County Resource Management Agency consider our comments and value our mission to protect waters of the State and maintain water quality in the Central Valley.

Project Description

State Clearinghouse No. 2013101054, proposes to expand the existing Tulare County Central Road Yard on 19.5 acres of a 39.5 acre parcel owned by Tulare County. The expansion will include a new Transit Operations Facility, a Fire Administration and Emergency Operations Center, a fast fill Compressed Natural Gas (CNG) fueling facility, Road Maintenance equipment parking area, Sheriff's Office evidence and storage structures, a storm water retention basin, a septic leach field, and an internal road system.

Authority

All groundwater and surface water are considered waters of the State. All waters of the State are protected under California law. State law assigns responsibility for protection of water quality in the Central Valley Region to the Central Valley Water Board. Some waters of the State are also waters of the United States. The Federal Clean Water Act (CWA) provides additional protection for those waters of the State that are also waters of the United States.

The Central Valley Water Board's Water Quality Control Plan for the Tulare Lake Basin, Second Edition, revised January 2004 (Basin Plan) contains policies that the Central Valley Water Board uses with other laws and regulations to protect the quality of waters of the State within the Central Valley Region. The Basin Plan sets forth water quality standards for surface waters and groundwater of the Tulare Lake Basin, which include designated beneficial uses as well as narrative and numerical objectives which must be maintained or attained to protect those uses. The Basin Plan can be accessed via the Central Valley Water Board's website at: http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/index.shtml.

Permitting Requirements

A number of activities associated with internal combustion engines and construction projects may have the potential to impact waters of the State and/or waters of the United States and, therefore, may require permits issued by either the State Water Resources Control Board (State Water Board) or Central Valley Water Board. The required permits may include:

- In many cases, storm water discharge of pollutants to waters of the United States from any point source is effectively prohibited unless the discharge is permitted under the *National Pollutant Discharge Elimination System (NPDES) Program.* For industrial facilities, the State Water Board adopted *NPDES General Permit No. CAS000001 for Storm Water Discharges Associated with Industrial Activity, Water Quality No. 97-03-DWQ* (General Permit). Based on the Project's description (if there will be any discharge to water of the United States), it appears that the Project is required to obtain coverage under the General Permit.

- Land disturbance of one acre or more may require a CWA, section 402 (p) storm water permit, including a National Pollutant Discharge Elimination System (NPDES) General Construction Storm Water Permit, Water Quality Order 2009-0009-DWQ, obtained from the State Water Board, or an individual storm water permit obtained from the Central Valley Water Board.

We request that the IS/MND recognize the potential permits that may be required (as outlined above), and identify the specific activities that may trigger these permitting actions in the appropriate sections of the environment document. Information regarding these permits, including application forms, can be downloaded from our website at: http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/index.shtml.

Other Concerns/Comments

If the proposed Project will generate any process wastewater or wash water, the environmental document prepared for the project should disclose this and consider its impacts to groundwater and surface water. Specifically, the environmental document should include, at a minimum, the following: 1) the water quality characteristics of the wastewater/wash water, 2) area soils and groundwater information, and 3) details regarding any wastewater/wash water storage tanks/ponds (e.g., dimensions, presence or liner details, etc.). The environmental document should also include a description of how storm water will be handled (i.e., type of retention basin, volume capacity, and dimensions) and identify any best management practices that may be implemented to prevent storm water from discharging off-site.

Thank you for the opportunity to comment on the draft IS/MND. If you have any questions regarding this matter, please contact Robert Lira at (559) 445-5548 or via email at Robert.Lira@waterboards.ca.gov.

MATTHEW S. SCROGGINS
Senior Engineer
RCE No. 67491

From: Hector Guerra
To: Georgiena Vivian; gvivian@vrpatechnologies.com
CC: Bock, Aaron
Date: 11/18/2013 4:57 PM
Subject: Fwd: Tulare County Maintenance Yard

Hi Georgiena,

Below is a preview of comments Caltrans will be sending us tomorrow. Please let us know what the implications will be to mitigation already contained in the TIS and MND. Rather than e-mail, let's talk about this tomorrow.

Best Regards,

Hector

>>> "Deel, David@DOT" <david.deel@dot.ca.gov> 11/18/2013 4:41 PM >>>
Hector -

Caltrans is ok with the proposed MND and completed TIS with analyzed intersections.
However Caltrans will recommend changes to the mitigation measures wording or possibly adding text in the TIS regarding the following.
For the 2040 cumulative scenario requiring widening for additional lanes on SR 63 at Avenue 256 and on SR 137 at Road 140, Caltrans is recommending the same number of receiving lanes opposite the proposed lane additions which will require additional road/freeway widening.
For example, on SR 63 at Avenue 256: Widening the southbound approach to three through lanes requires three receiving lanes on southbound SR 63, therefore roadway widening on southbound SR 63 south of the intersection is needed.
I will have these recommendations in a formal letter to the County in tomorrow's mail with an email to you.

Thank you for your assistace in this matter.
If you have further questions, please contact me.

Respectfully,

DAVID DEEL
Associate Transportation Planner
IGR & Transit Representative - Tulare County
Office of Planning & Local Assistance - North Section
Desk: 559.488.7396

CALTRANS - District 6
P.O. Box 12616
Fresno, CA 93778-2616

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