APPENDIX A

Notice of Preparation and Responses to Notice of Preparation

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Jennifer Mercado

NOTICE OF PREPARATION OF ENVIRONMENTAL IMPACT REPORT FOR WHITMORE RANCH SPECIFIC PLAN

To: Responsible Agencies, Organizations, and Interested Parties
From: Tom Westbrook, Director of Community Development
Date: February 1, 2017

In accordance with the provisions of the California Environmental Quality Act ("CEQA"), the City of Ceres (City) has determined that the Whitmore Ranch Specific Plan will require preparation of an Environmental Impact Report ("EIR"). The City will not be preparing an environmental initial study. Ceres will be the lead agency for preparation of the EIR. The purpose of the Notice of Preparation (NOP) is to provide an opportunity for public agencies, interested parties, and the public to comment on the scope and content of the EIR.

Comments in response to this Notice of Preparation should be submitted to the City no later than March 2, 2017.

FOCUS OF INPUT

The City relies on responsible and trustee agencies to provide information relevant to the analysis of resources falling within the jurisdiction of such agencies. The City encourages input for the proposed Specific Plan and the Specific Plan EIR, with a focus on the following topics:

- **Scope of Environmental Analysis.** Guidance on the scope of analysis for this EIR, including identification of specific issues that will require closer study due to the location, scale, and character of this Specific Plan.
- **Mitigation Measures.** Ideas for mitigation, including both feasible mitigation that would apply to the Specific Plan development standards, design guidelines, and land use diagram, as well as programmatic mitigation with performance standards that would be applied at the subdivision map and project level that would avoid, eliminate, or reduce potentially significant or significant impacts;
- **Alternatives.** Suggestions for alternatives to the Specific Plan that could potentially reduce or avoid potentially significant or significant impacts, including alternatives designs, alternative land use mixes, alternative phasing strategies, and other options; and
- **Interested Parties.** Identification of public agencies, public and private groups, and individuals that the City should notice regarding this Specific Plan and the accompanying EIR.

NOP COMMENTS

Comments in response to this NOP should be addressed to:

Mr. Tom Westbrook
Director of Community Development
2220 Magnolia Street,
Ceres, CA, 95307
(209) 538-5778
tom.westbrook@ci.ceres.ca.us

PROJECT LOCATION

The Specific Plan Area is located in unincorporated Stanislaus County adjacent to the City of Ceres (Exhibit 1; Exhibit 2). The Specific Plan Area encompasses approximately 94 acres that is bounded by Whitmore Avenue on the north, Moore Road on the west, and the east side of La Rosa Elementary School on the east. The southern limit of the Specific Plan Area is approximately 1,300 feet south of Whitmore Avenue.

PROJECT DESCRIPTION

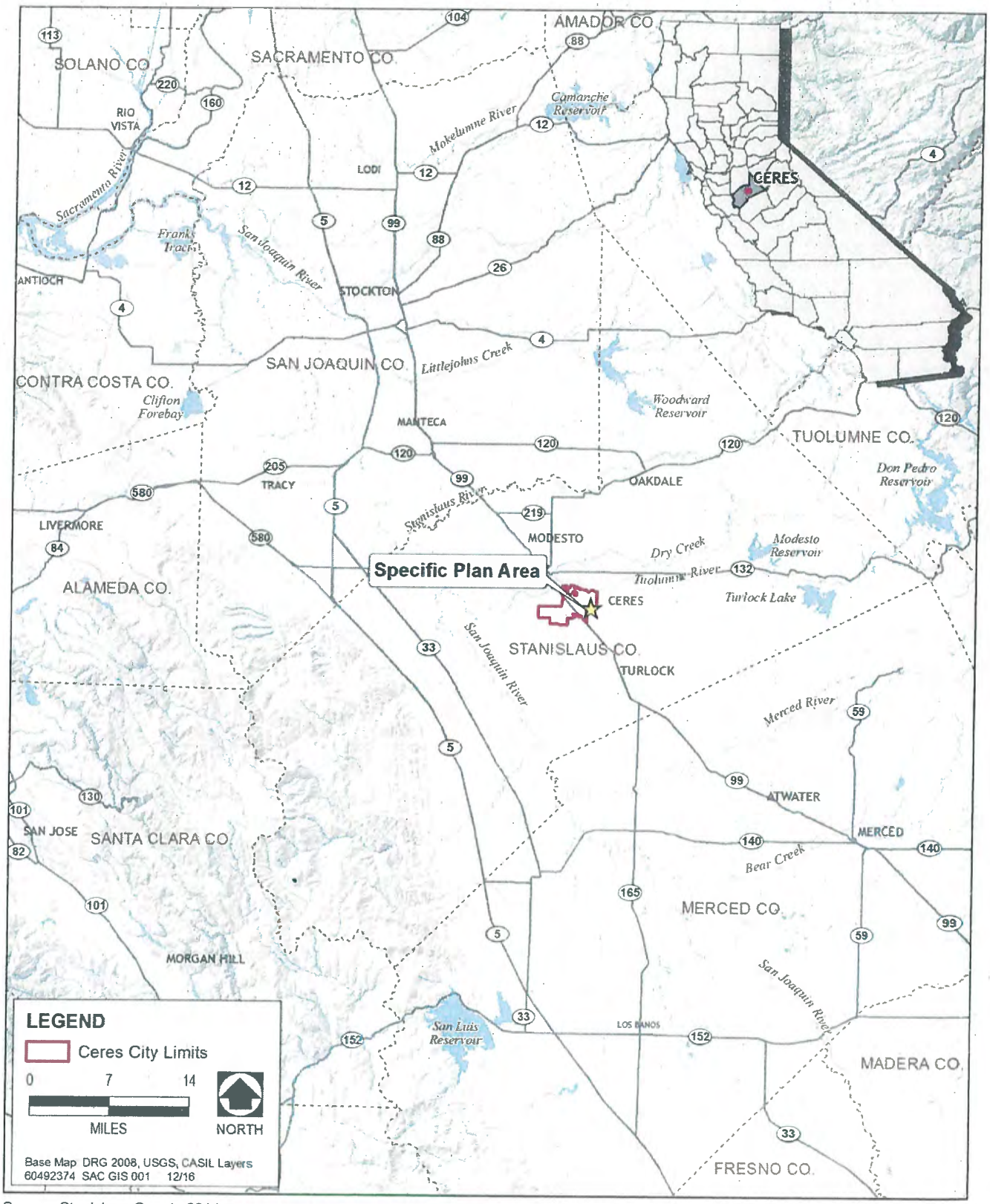
The Ceres General Plan includes a mix of residential land use designations for the Specific Plan Area, along with the School designation for the eastern portion of the area. This General Plan guidance was used to develop land use designations for the Specific Plan. Specific Plan designations are consistent with the General Plan direction, but make some adjustments based on parcel sizes, parcel configurations, and the need to incorporate open space, access, and circulation.

The Specific Plan is being drafted concurrent with the EIR.

The Specific Plan will provide for a range of densities and housing types; parkland and other open space; existing schools; and supporting infrastructure. Future development proposals would be compared to the allowable uses, as well as development standards and design guidelines included in the Specific Plan.

The Specific Plan Land Use Diagram, Exhibit 4, identifies Specific Plan land use designations. Table 1 summarizes the proposed land uses. As shown, the Specific Plan provides approximately 28 acres for Low-Density Residential, 7 acres for Medium-Density Residential, and 6 acres for Higher-Density Residential. Approximately 36 acres has the School land use designation and approximately 5 acres is designated Parks/Open Space. Streets and associated public rights-of-way would require approximately 12 acres. The Specific Plan, once fully developed, could provide opportunities for as many as 441 new dwelling units. This total assumed number of dwelling units and the number of units shown for each land use designation in Table 1 is an assumption used for the purposes of analysis.

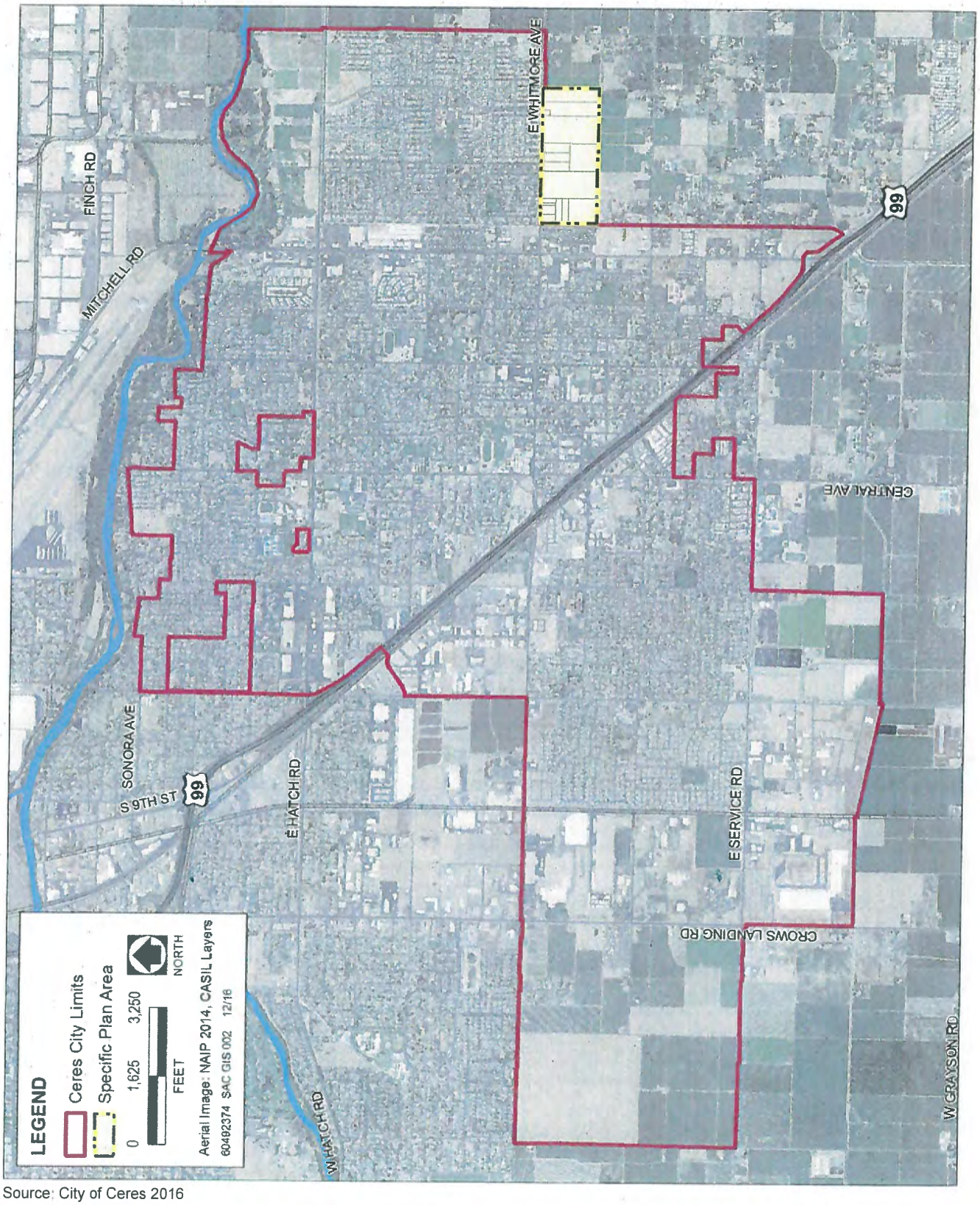
Exhibit 5 provides a conceptual site plan. Exhibit 5 is intended only to illustrate one possible development scheme for the Specific Plan Area. Other design approaches would be consistent with the Specific Plan.



Source: Stanislaus County 2014

Exhibit 1

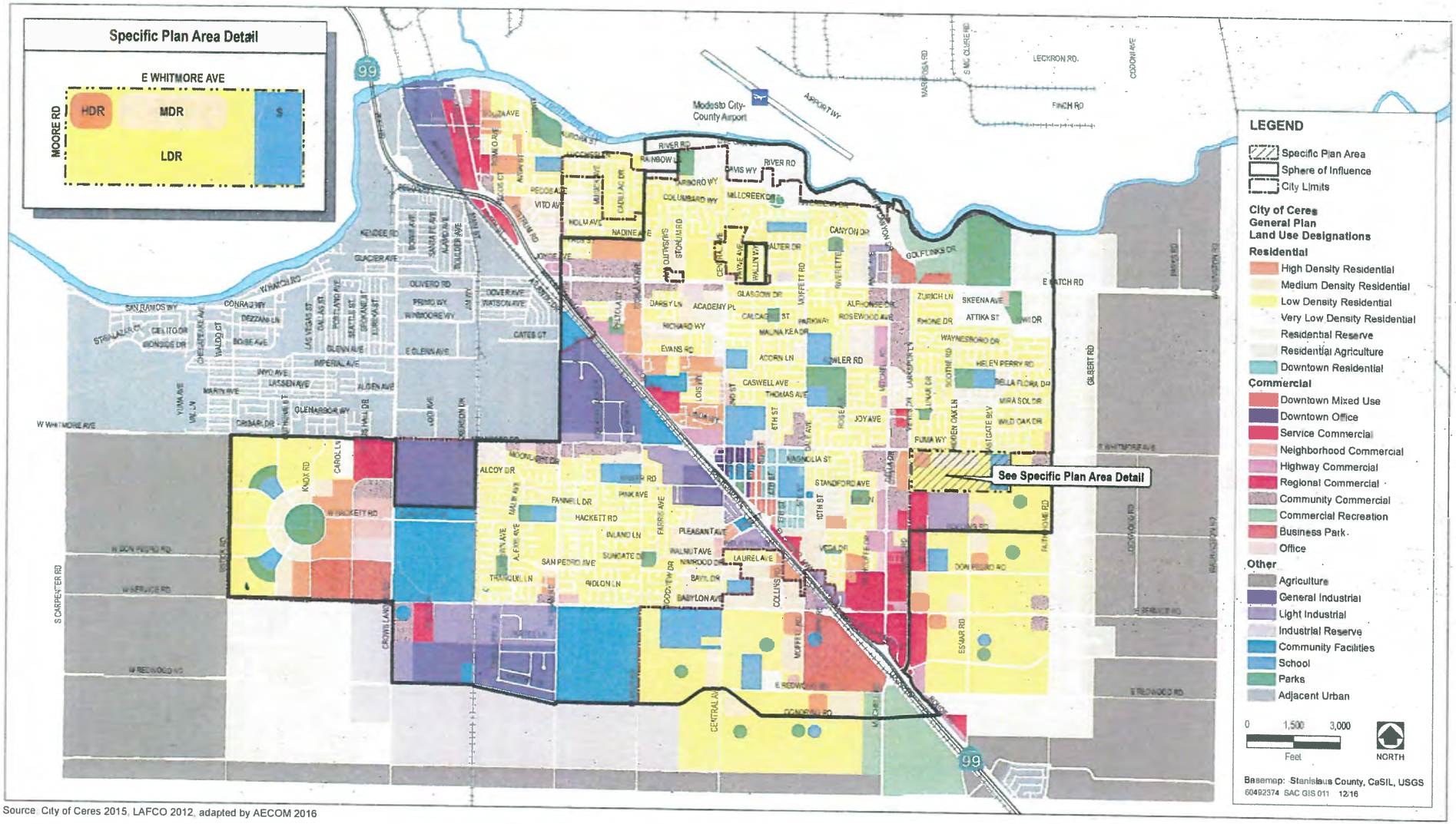
Vicinity Map



Source: City of Ceres 2016

Exhibit 2

Location of Specific Plan Area



Source: City of Ceres 2015, LAFCO 2012, adapted by AECOM 2016

Exhibit 3

City of Ceres General Plan Land Use

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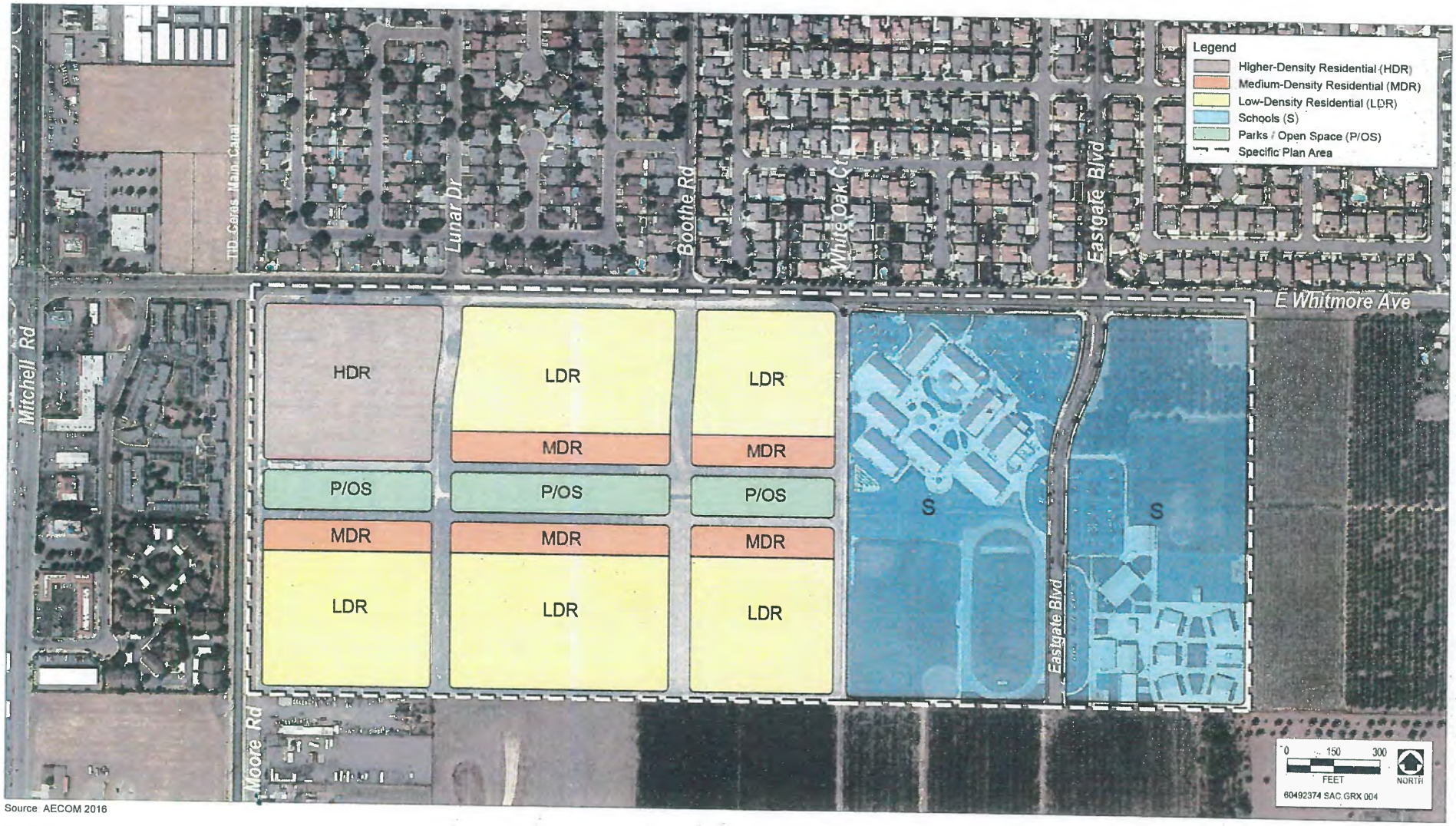

Source: AECOM 2016

Exhibit 4

Specific Plan Land Use Designations

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Source: AECOM 2016

Exhibit 5

Conceptual Site Plan (Illustrative Only)

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Residential

The Specific Plan provides housing opportunities in three residential land use designations, including:

- Low-Density Residential, approximately 28 acres, with an assumed average lot size of 5,000 square feet;
- Medium-Density Residential, approximately 7 acres, with an assumed average lot size lot size of 3,000 square feet; and
- Higher-Density Residential, approximately 6 acres, with an assumed average density of 24 dwelling units per acre (du/ac).

The development assumptions presented in Table 1 are for the purpose of analysis only. While these assumptions would be expected to represent the top end of actual yield realized within the Specific Plan Area after it is fully developed, actual densities may be somewhat lower than these assumptions.

Table 1
Proposed Specific Plan Land Uses

Land Use	Approximate Acres	Allowable Uses	Potential Dwelling Units
Low-Density Residential (LDR)	28	Single-family homes and home-based businesses	196
Medium-Density Residential (MDR)	7	Single-family homes using a variety of designs, multi-family housing, home-based businesses	85
Higher-Density Residential (HDR)	6	Attached and small-lot single-family homes, multi-family, and complementary open space and public facilities	160
Parks / Open Space	5	Trails, parkspace, stormwater management facilities, and other types of open space	
School	36	Existing and proposed public schools, associated recreational facilities, and associated uses	
Streets and Rights-of-Way	12		
Total	**~94**		**441**

Notes: The acreages for each use type may vary from that shown in the table above as roadways are aligned, lots are configured, and other site-specific elements are refined as a part of future development within the Specific Plan Area.

Parks/Open Space

The proposed Specific Plan includes approximately 5 acres of public open space located in the center of the Specific Plan Area. The City anticipates that this open space would provide passive recreational opportunities and stormwater management features, as well as a high-quality, east-west bicycle and pedestrian connection across the Specific Plan Area. On-site open space is intended to meet the City's parkspace requirement of four acres per thousand residents.

Schools

Approximately 33 acres of the Specific Plan Area is occupied by Cesar Chavez Junior High School and La Rosa Elementary School. These schools would continue to operate at this location. Approximately 3 acres of undeveloped land in the northeastern portion of the Specific Plan Area is owned by the Ceres Unified School District. The total land area with the School designation is approximately 36 acres.

Public Utilities and Infrastructure

Infrastructure to support the Specific Plan will include drainage, sewer, water, and dry utilities, as summarized below.

Drainage

Storm drains will be incorporated in streets, parks, and open spaces throughout the Specific Plan Area. The City anticipates that the open space would provide passive drainage, as well. Water quality issues would be addressed prior to entering the downstream system. Design and construction of the drainage system would be reviewed and conditioned, as necessary, to meet applicable City standards. The Specific Plan will include details on planned drainage improvements.

Water

Water supply for the Specific Plan Area will be provided by the City of Ceres and extended from existing adjacent facilities. Water conveyance facilities will be constructed within Specific Plan Area and would be required to meet applicable City standards. The Specific Plan will include details on planned backbone water supply improvements.

Sewer

Sewer collection and treatment will be provided to the Specific Plan Area by the City of Ceres. The size and location of on-site facilities will be developed as a part of the Specific Plan process, consistent with City standards. Existing adjacent facilities would be extended to serve development within the Specific Plan Area. The Specific Plan will include details on planned backbone sewer collection improvements.

Dry Utilities

Dry utilities, including electricity and natural gas will be required to serve the Specific Plan. Pacific Gas & Electric (PG&E) supplies natural gas within the vicinity of the Specific Plan Area and Turlock Irrigation District (TID) provides electricity.

Electricity

TID is responsible for upgrading existing electrical infrastructure or constructing new infrastructure to meet the demands of individual projects anticipated under the Specific Plan. The size, location, and types of electrical facilities required to serve individual development projects proposed pursuant to the Specific Plan is not known at this time. Electrical infrastructure may include extension of existing distribution lines; upgrades to substations; and construction of new distribution lines, substations, and transformers. Applicant(s) for future projects within the Specific Plan Area would be required to coordinate with, and meet the requirements of TID.

Natural Gas

Natural gas service for the Specific Plan Area is currently provided by PG&E. PG&E has no existing natural gas facilities within the Specific Plan Area. One PG&E buried natural gas pipeline lies along Whitmore Avenue with small pipelines that connect to the existing schools.

PG&E is responsible for upgrading existing natural gas distribution systems or constructing new distribution systems to meet the demands of individual projects that could be developed pursuant to the Specific Plan. PG&E may extend existing natural gas infrastructure using undergrounded pipelines, upgrade natural gas regulator stations, and construct new natural gas regulator stations to serve individual development projects. The size, location, and types of natural gas facilities required to serve individual development projects proposed pursuant to the Specific Plan is not known at this time. Applicant(s) for future projects within the Specific Plan Area would be required to coordinate with, and meet the requirements of PG&E.

Transportation Improvements

The Specific Plan transportation network will provide access and mobility for pedestrians, bicyclists, and motorists, along with future opportunities for planned transit extensions. Currently, Eastgate Boulevard is the only road in the Specific Plan Area. However, planned improvements would include pedestrian and bicycle facilities along Whitmore Avenue and Moore Road, as well as through the central open space feature of the Specific Plan.

Specific Plan improvements along Whitmore Avenue will be coordinated with a Safe Routes to School project planned south of Whitmore Avenue between Moore Road and the existing schools.

The Specific Plan would provide for multi-modal extensions of Lunar Drive and Boothe Road through the Specific Plan Area, as well as a new facility along the southern boundary of the Specific Plan Area (Stanford Avenue). To provide connectivity and access, several additional internal pedestrian, bicycle, and vehicular facilities would also be installed within the Specific Plan Area, consistent with City design standards and any additional relevant guidance provided as a part of the Specific Plan. Details on circulation planning will be provided in the draft Specific Plan.

Permits and other Approvals

Implementation of the Specific Plan will require approval by the Ceres City Council. The City will also be required to certify the EIR. The Specific Plan would also represent a General Plan Amendment. This Amendment is not required to replace land uses allowed under the General Plan with different land uses, but rather to adjust the specific acreages provided for each of the General Plan's land use designations for the Specific Plan Area.

Implementation of the Specific Plan will also involve a variety of other City approvals that could include, but are not necessarily limited to the approval of subdivision map/s, grading permit/s, encroachment permits, and building permits (with appropriate permit conditions).

Other permitting agencies with approval or review authority over portions of the Specific Plan and projects developed under the Specific Plan may include, but is not necessarily limited to the agencies identified below.

Regional and Local Agencies

- San Joaquin Valley Air Pollution Control District (SJVAPCD) authority to construct (for devices that emit air pollutants) and review for applicability of projects with the Indirect Source Review Rule (Rule 9510).
- TID: approval of application for electrical service.
- PG&E: approval of application for natural gas service.

State Agencies

- Central Valley Regional Water Quality Control Board (RWQCB) (Region 5): National Pollutant Discharge Elimination System (NPDES) construction stormwater permit (notice of intent to proceed under general construction permit), discharge permit for stormwater, general order for dewatering, and Section 401 Clean Water Act certification or waste discharge requirements.

Project Objectives

Specific plans, under State law, must be consistent with the relevant jurisdiction's general plan. As such, the Whitmore Ranch Specific Plan will be consistent with, and implement the City of Ceres General Plan. The EIR will include reference to relevant General Plan goals, policies, standards, and implementation programs that will guide the City's review of the Specific Plan and other entitlements required to fully implement the Specific Plan.

Key objectives for the proposed project are:

- Promote a distinct, identifiable neighborhood that integrates a variety of housing types;

- Encourage walking, bicycling, and transit use by Specific Plan Area residents, and provide bicycle and pedestrian connectivity throughout the Specific Plan Area and to adjacent bicycle and pedestrian facilities;
- Provide safe, bicycle and pedestrian connections to and from the two schools within the Specific Plan Area;
- Ensure appropriate access and connectivity between the Specific Plan Area and existing developed areas, as well as areas planned for future development; and
- Incorporate best practices and conservation measures into the design and provision of sewer, water, storm drainage, parks and open space, and other public improvements necessary to serve future development of the Specific Plan Area.

PROBABLE ENVIRONMENTAL EFFECTS

An Initial Study will not be prepared to accompany this Notice of Preparation. The City of Ceres, as Lead Agency for the project, intends to prepare an EIR that addresses each environmental issue that is relevant to the Specific Plan. CEQA Guidelines Section 15082 recommends that a NOP include "probable environmental effects of the project." The following is a summary of the environmental issues anticipated to be addressed in the Draft EIR. The listed issue areas are not necessarily potentially significant or significant effects attributable to the Specific Plan – these determinations will be the subject of detailed analysis disclosed in the Draft EIR.

The Draft EIR will identify feasible mitigation measures to avoid or reduce potentially significant environmental impacts. The level and scope of environmental assessment in the EIR will be refined, based on responses to this NOP.

Aesthetics

Based on guidance in the City of Ceres General Plan, the EIR will evaluate the change in existing visual character of the area resulting from the Specific Plan, as well as potential effects to scenic views and resources. The EIR will assess the impacts related to light and glare from lighting included in the Specific Plan and will consider the nighttime viewshed, including distant views that could be altered by outdoor lighting.

Agriculture

The conversion from agricultural fields to urban uses will be analyzed in the context of applicable City policies and CEQA standards of significance for agricultural resources. The evaluation will include any direct conversion of Important Farmland or lands under Williamson Act Contracts, conflicts with agricultural zoning, and direct, indirect, or cumulative impacts on adjacent agricultural areas.

Air Quality

The EIR will describe regional and local air quality and evaluate potentially significant direct, indirect, and cumulative air quality effects attributable to the Specific Plan during construction (temporary and short-term) and long-term operation (long term). Analysis will be informed by CEQA guidance and thresholds of significance developed by the San Joaquin Valley Air Pollution Control District.

Biological Resources

A literature review and field survey will be conducted to document and describe on-site biological resources, identify any potentially significant impacts to these resources from development of the Specific Plan Area, and provide feasible mitigation to reduce or avoid potentially significant biological impacts. The EIR will describe existing biological resources, including special-status species, in the Specific Plan Area. The EIR will analyze and report the Specific Plan's direct, indirect, and cumulative impacts on biological resources.

Cultural Resources

The EIR will describe previously identified archaeological resources and any new archaeological resources identified during the archaeological inventory conducted for the Specific Plan. The EIR will address temporary and/or permanent disturbance of known or unknown historic and archaeological resources.

Geology, Soils, Mineral and Paleontological Resources

The EIR will describe geologic conditions and characterize soils in the Specific Plan Area. The EIR will evaluate seismicity of the vicinity, the presence of existing fault lines, and their effect on Specific Plan development, the erodibility of site soils, soil stability characteristics, and the expansive characteristics of on-site soils. The EIR will evaluate any impacts related to any on-site mineral resource zones, as well as the Specific Plan's potential impact on paleontological resources.

Greenhouse Gas Emissions

Emissions of greenhouse gases (GHGs) contributing to global climate change are attributable in large part to human activities. In California and in Stanislaus County, the transportation sector is the largest emitter, but GHG emissions can be broadly attributed to various human activities associated with the residential, industrial/ manufacturing, utility, transportation, and agricultural sectors.[1] The EIR will evaluate whether GHG emissions attributable to Specific Plan construction and operation constitute a cumulatively considerable contribution to the significant adverse cumulative impact of global climate change.

Hazards and Hazardous Materials

The EIR will discuss the potential for hazardous material exposure either during construction or during long-term occupation of development. Potential hazards related to the provision of emergency services, fire hazards, any residual on-site hazardous materials, and routine use of hazardous materials during operation of proposed land uses.

Hydrology and Water Quality

The EIR will describe hydrologic conditions in the Specific Plan Area and evaluate the effects of the Specific Plan on hydrologic features. This evaluation will include the Specific Plan's consistency with the requirements of water quality and drainage regulations. The EIR will report on impacts related to alteration of on-site and off-site drainage patterns; erosion; stormwater discharges; groundwater recharge; water quality; and flooding.

Land Use and Planning

The EIR will evaluate the consistency of the Specific Plan with applicable policies and plans adopted to reduce environmental effects, including, but not necessarily limited to the City of Ceres General Plan and the Stanislaus County Council of Governments Regional Transportation Plan/Sustainable Communities Strategy.

Noise and Vibration

The EIR will characterize the existing noise environment, including noise related to vehicular traffic and adjacent agricultural operations. The EIR will evaluate the short-term noise impacts that will occur during construction of site improvements and buildings, as well as long-term operational noise impacts caused by vehicle traffic attracted to, or generated by Specific Plan uses. The impacts will be compared to local standards, and in particular the noise impact and mitigation guidance detailed in the City of Ceres General Plan. In addition, the analysis will address the land use compatibility with existing and future noise levels.

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[1] For more detail on Countywide emissions sources, please refer to the County's website: http://www.stancounty.com/planning/pl/StanRST-Docs/County/STANISLAUS%20COUNTY%20GHG%20REPORT.pdf

Population and Housing

The EIR will present existing and forecast population, demographic, employment, and housing data. The population, employment, and housing analysis will include a review of changes in local and regional population, demographics, and housing resulting from the Specific Plan and the potential for secondary environmental impacts from those changes.

Public Services and Utilities, including Recreation and Energy

Development within the Specific Plan Area will increase the demand for public services, including fire, police, schools, and parks and recreation, as well as public utilities, including water supply and conveyance, wastewater collection and treatment, solid waste disposal, and electrical and natural gas service. The EIR will include an analysis of potential impacts related to new or expanded facilities that will be required to serve demand attributable to development of the Specific Plan. The analysis of public utilities will include a discussion of energy-related impacts related to Specific Plan implementation. This includes identifying energy sources for the proposed Specific Plan and estimating the operational energy demands associated with the proposed Specific Plan. Energy-efficiency measures that would reduce energy demands will be recommended, as appropriate.

Traffic

The EIR will evaluate direct, indirect, and cumulative travel demand associated with the Specific Plan and will describe anticipated increases to traffic on local and regional roads. The transportation analysis will evaluate level of service for affected intersections and roadway segments within Specific Plan and the surrounding roadway network, as well as impacts associated with travel demand (often represented as vehicle miles traveled or "VMT"). As part of the analysis, the EIR will determine if the internal roadways will have adequate capacity to accommodate the proposed land uses and will identify impacts associated with development of the Specific Plan and improvements that may be necessary to serve proposed uses.

Alternatives

The EIR will identify and evaluate a reasonable range of alternatives that will meet the basic objectives for the Specific Plan, while attempting to avoid or substantially lessen some or all of the significant environmental effects. The EIR will analyze the "no project" alternative, as required by CEQA.

CEOA-Mandated Sections

The EIR will evaluate cumulative impacts, discuss potential growth-inducing impacts of the Specific Plan, and summarize significant and unavoidable environmental effects.

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
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West Sacramento, CA 95691
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FEB 08 2017
CITY OF CERES
PLANNING & BUILDING DIVISION

Edmund G. Brown Jr., Governor

February 6, 2017

Tom Westbrook
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sent via e-mail:
tom.westbrook@ci.ceres.ca.us

RE: SCH# 2017012063; Whitmore Ranch Specific Plan Project, Notice of Preparation for Draft Environmental Impact Report, Stanislaus County, California

Dear Mr. Westbrook:

The Native American Heritage Commission has received the Notice of Preparation (NOP) for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000 et seq.), specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b) (CEQA Guidelines Section 15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared. (Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd.(a)(1) (CEQA Guidelines § 15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a **separate category of cultural resources**, "tribal cultural resources" (Pub. Resources Code § 21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment (Pub. Resources Code § 21084.2). Please reference California Natural Resources Agency (2016) "Final Text for tribal cultural resources update to Appendix G: Environmental Checklist Form," http://resources.ca.gov/ceqa/docs/ab52/Clean-final-AB-52-App-G-text-Submitted.pdf. Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code § 21084.3 (a)). **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. § 800 et seq.) may also apply.

The NAHC recommends **lead agencies consult with all California Native American tribes** that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments. **Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.**

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a **lead agency** shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
    a. A brief description of the project.
    b. The lead agency contact information.
    c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code § 21080.3.1 (d)).

d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code § 21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A **lead agency** shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code § 21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or environmental impact report. (Pub. Resources Code § 21080.3.1(b)).
   a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18). (Pub. Resources Code § 21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
   a. Alternatives to the project.
   b. Recommended mitigation measures.
   c. Significant effects. (Pub. Resources Code § 21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
   a. Type of environmental review necessary.
   b. Significance of the tribal cultural resources.
   c. Significance of the project's impacts on tribal cultural resources.
   d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code § 21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code § 21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
   a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
   b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code § 21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
   a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
   b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code § 21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code § 21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code section 21084.3 (b). (Pub. Resources Code § 21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:
    i. Planning and construction to avoid the resources and protect the cultural and natural context.
    ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
    i. Protecting the cultural character and integrity of the resource.
    ii. Protecting the traditional use of the resource.
    iii. Protecting the confidentiality of the resource.
c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
d. Protecting the resource. (Pub. Resource Code § 21084.3 (b)).
e. Please note that a federally recognized California Native American tribe or a nonfederally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code § 815.3 (c)).
f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code § 5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An environmental impact report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
    a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
    b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
    c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code § 21082.3 (d)).

    This process should be documented in the Cultural Resources section of your environmental document.

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires **local governments** to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code § 65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code § 65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code section 65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction. (Gov. Code § 65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason,

we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have been already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
    a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
    b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
    a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
    b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
    c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

Please contact me if you need any additional information at gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

cc: State Clearinghouse

RECEIVED
FEB 14 2017
CITY OF CERES
PLANNING & BUILDING DIVISION

STANISLAUS COUNTY ENVIRONMENTAL REVIEW COMMITTEE
REFERRAL RESPONSE FORM

TO: **Stanislaus County Planning & Community Development**
1010 10th Street, Suite 3400
Modesto, CA 95354

FROM: E.H. of DER.

SUBJECT: ENVIRONMENTAL REFERRAL - CITY OF CERES – NOTICE OF PREPARATION OF ENVIRONMENTAL IMPACT REPORT - WHITMORE RANCH SPECIFIC PLAN

Based on this agencies particular field(s) of expertise, it is our position the above described project:

_____ Will not have a significant effect on the environment.
_____ May have a significant effect on the environment.
__X__ No Comments.

Listed below are specific impacts which support our determination (e.g., traffic general, carrying capacity, soil types, air quality, etc.) – (attach additional sheets if necessary)

1.
2.
3.
4.

Listed below are possible mitigation measures for the above-listed impacts *PLEASE BE SURE TO INCLUDE WHEN MITIGATION OR CONDITION NEEDS TO BE IMPLEMENTED (PRIOR TO RECORDING A MAP, PRIOR TO ISSUANCE OF A BUILDING PERMIT, ETC.):*

1.
2.
3.
4.

In addition, our agency has the following comments (attach additional sheets if necessary).

Response prepared by:

Name	Title	Date
WALEED YOSIF	Sr. EHS.	2/14/2017

ATTACHMENTS

EMAIL TO ERC

from: Luie M Patrick
3549 & 3507 Roeding Rd
Ceres, CA 95307
Phone: (209) 537-8689

RECEIVED
FEB 21 2017
CITY OF CERES
PLANNING & BUILDING DIVISION

To: Mr. Tom Westbrook:

My concerns regarding the project listed on the back page are.

1. The water supplied to the project.
2. Is the water obtained from wells procured on the project site.
3. Will it effect the water level at my well & which is 90 ft. Deep.
4. Traffic increase; will the existing Hay Lane connected to my 20 Acres on the East side of my property be a through road to Roeding Rd on the South side of my Property all the way from Roeding Road to Whitmoore.

Luie M Patrick

From: Patricia Cousins <pmcousins@aim.com>
To: Tom Westbrook <Tom.Westbrook@ci.ceres.ca.us>, Patricia Cousins <pmcousin...
Date: 2/25/2017 7:13 PM
Subject: Comments to NOP

This Comment objects to your NOP for Whitmore Ranch Specific Plan.

This Comment objects to the Whitmore Ranch, a potential source of noise, destruction, and decay. As stated in sessions on this issue previously attended, I Patricia Melugin Cousins, reside at 3865 Roeding, Ceres, CA. as a co-tenant of that property with my sisters Janet Melugin Allen and Stella Melugin Coakley and a joint tenant with my husband Michael D. Cousins. He joins me in this Comment and continuing opposition to the City of Ceres sprawl over all. The proposed annexation is untimely, unnecessary, and focused on dollars for developers. The proposed annexation is destructive of native flora and fauna and of peace and quiet for residents you propose to invade.

Your NOP claims "The City relies on responsible and trustee agencies. . ." Maybe. Certainly we in adjacent properties have no one speaking for us or notifying us of City days and ways. The proposed, poorly named Whitmore Ranch, appears to include the desire/intent to annex a few acres of our property. I am unable to determine this with certainty. Why does the City seem to have no obligation or intent to notify surrounding property owners of its determined desire to spread and sprawl? As the City Planning Commission so clearly sees, the time is not now. Enough of annexation without representation. I am exploring the possibility of a Smyrna Park MAC., Municipal Advisory Council to create a voice for those of us wishing to remain your neighbors, not your City residents.

Go develop the west side already part of the City. Clean up the town you already have. Leave us to our birds, bees, beasts, and green land.

Please acknowledge receipt of this Comment to your Whitmore Ranch NOP.

Patricia Melugin Cousins

Michael D. Cousins 209-538-2875

RECEIVED
FEB 27 2017
CITY OF CERES
PLANNING & BUILDING DIVISION

From: Mike Allen <mikeallen99@allensrus.com>
To: <Tom.Westbrook@ci.ceres.ca.us>
Date: 2/27/2017 8:11 PM
Subject: RE: Comments to NOP

I, Janet (Melugin) Allen, agree with my sister Patricia Melugin Cousins in protesting the City of Ceres expansion toward or onto our property.

Sincerely.

Janet (Melugin) Allen

RECEIVED
FEB 28 2017
CITY OF CERES
PLANNING & BUILDING DIVISION

Mr. Tom Westbrook
Director of Community Development
Ceres, CA

Re: Notice of Preparation of Environmental Impact Report for Whitmore Ranch Specific Plan
OPPOSITION to proceeding with NOP and development

In reviewing the information for preparing an environmental impact report for this proposed development, I want to confirm that I remain in opposition to the annexation and development of the proposed property, Whitmore Ranch, at this time. The City should first hold the requesting developers to development of the area previously annexed west of the City. As a co-owner of 3865/3831 Roeding Rd., immediately adjacent landowners to the south and I indeed OBJECT to proceeding with the NPO and any further development at this time.

Environmental concerns include negative impact on agricultural activities as residential use frequently impinges on agricultural operations (cultivation, harvesting, pest, pathogen and weed control). While infrequently in residence on our property, I reiterate the far-reaching noise already existing coming from La Rosa School, especially bells clanging frequently when school is not even in session. It is unfortunate that the school is not a good neighbor. Additional development of houses to the west will only increase the issues for rural life that bound on the southside of this area. There appears to be a planned road extension that suggests encroachment on properties to the south as well.

Alternatives to developing this area at this point in time should focus on the west side of the city where land has already been annexed. Again, the failed westside residential development is unfortunate but the developers should be held to that area rather than moving to a "fast buck" at the expense of agriculture and rural living on the eastside.

Environmental issues include: The water table/quality in this area has been at increasing risk and additional development will exacerbate that despite the provision of city services. Development invariably reduces rainfall percolation and return to the water table. Other issues would be those listed within the NPO; additionally, there needs to be an assessment of native species and the required maintenance of pollinator species that currently exist in this undeveloped area.

Thank you for recording my objections to proceeding with an Environmental Assessment and this annexation.

Stella Melugin Coakley 02/28/17; 541-753-6215; 3839 NW Jackson, Corvallis, OR 97330

CALIFORNIA
Water Boards

RECEIVED
FEB 28 2017
CITY OF CERES
PLANNING & BUILDING DIVISION

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

24 February 2017

Tom Westbrook
City of Ceres
2220 Magnolia Street
Ceres, CA 95307

CERTIFIED MAIL
91 7199 9991 7035 8421 4619

COMMENTS TO REQUEST FOR REVIEW FOR THE NOTICE OF PREPARATION FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT, WHITMORE RANCH SPECIFIC PLAN PROJECT, SCH# 2017012063, STANISLAUS COUNTY

Pursuant to the State Clearinghouse's 1 February 2017 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Notice of Preparation for the Draft Environment Impact Report* for the Whitmore Ranch Specific Plan Project, located in Stanislaus County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases,

the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues.

For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/.

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Policy is available on page IV-15.01 at:
http://www.waterboards.ca.gov/centralvalleywater_issues/basin_plans/sacsjr.pdf

In part it states:

> *Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.*
>
> *This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.*

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan

(SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits[1]
The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/.

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit
Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml.

Clean Water Act Section 404 Permit
If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water

[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACOE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

Waste Discharge Requirements – Discharges to Waters of the State

If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml.

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Risk General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Risk Waiver) R5-2013-0145. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Risk General Order and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Risk Waiver and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2013-0145_res.pdf

Regulatory Compliance for Commercially Irrigated Agriculture

If the property will be used for commercial irrigated agricultural, the discharger will be required to obtain regulatory coverage under the Irrigated Lands Regulatory Program. There are two options to comply:

1. **Obtain Coverage Under a Coalition Group.** Join the local Coalition Group that supports land owners with the implementation of the Irrigated Lands Regulatory Program. The Coalition Group conducts water quality monitoring and reporting to the Central Valley Water Board on behalf of its growers. The Coalition Groups charge an annual membership fee, which varies by Coalition Group. To find the Coalition Group in your area, visit the Central Valley Water Board's website at: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/app_approval/index.shtml; or contact water board staff at (916) 464-4611 or via email at IrrLands@waterboards.ca.gov.

2. **Obtain Coverage Under the General Waste Discharge Requirements for Individual Growers, General Order R5-2013-0100**. Dischargers not participating in a third-party group (Coalition) are regulated individually. Depending on the specific site conditions, growers may be required to monitor runoff from their property, install monitoring wells, and submit a notice of intent, farm plan, and other action plans regarding their actions to comply with their General Order. Yearly costs would include State administrative fees (for example, annual fees for farm sizes from 10-100 acres are currently $1,084 + $6.70/Acre); the cost to prepare annual monitoring reports; and water quality monitoring costs. To enroll as an Individual Discharger under the Irrigated Lands Regulatory Program, call the Central Valley Water Board phone line at (916) 464-4611 or e-mail board staff at IrrLands@waterboards.ca.gov.

Low or Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Dewatering and Other Low Threat Discharges to Surface Waters* (Low Threat General Order) or the General Order for *Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects, and Other Limited Threat Wastewaters to Surface Water* (Limited Threat General Order). A complete application must be submitted to the Central Valley Water Board to obtain coverage under these General NPDES permits.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0074.pdf

For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0073.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of the waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit.

For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/help/business_help/permit3.shtml

If you have questions regarding these comments, please contact me at (916) 464-4644 or Stephanie.Tadlock@waterboards.ca.gov.

Stephanie Tadlock

Stephanie Tadlock
Environmental Scientist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

1010 10TH Street, Suite 3400, Modesto, CA 95354
Phone: 209.525.6330 Fax: 209.525.5911

RECEIVED
FEB 28 2017
CITY OF CERES
PLANNING & BUILDING DIVISION

February 28, 2017

Mr. Tom Westbrook, Director
Community Development Department – Planning and Building Division
City of Ceres
2220 Magnolia Street
Ceres, CA 95307

Subject: Notice of Preparation of Environmental Impact Report for Whitmore Ranch Specific Plan

Mr. Westbrook,

Stanislaus County Airport Land Use Commission staff is in receipt of your agency's CEQA Referral for the project referenced above.

The Whitmore Ranch Specific Plan is proposed "to provide for a range of densities and housing types; parkland and other open space; existing schools, and supporting infrastructure. Future development proposals would be compared to the allowable uses, as well as development standards and design guidelines to be included in the Specific Plan."

The project site is generally located south of East Whitmore Avenue between Moore Road and Faith Home Road and consists of approximately 94 acres. The proposed land uses consists of 28 acres of Low Density Residential, 7 acres of Medium-Density Residential, 6 acres of Higher Density Residential, 5 acres of Parks/Open Space, 36 acres of school facilities and 12 acres of street and rights-of-way.

Stanislaus County Board of Supervisors adopted the Stanislaus County Airport Land Use Compatibility Plan (ALUCP) on October 6, 2016. Airport Land Use Commission staff review proposed projects to determine of being within the Airport Influence Area and a review for consistency with applicable Compatibility Plan policies.

I offer the following comments for consideration in the preparation of an environmental assessment for this project:

1. The subject site is located within the Airport Influence Area (Referral Area 2) of the Modesto City-County Airport Influence Area Policy Map (Map MOD-1 of the ALUCP, attached). Referral Area 2 includes locations where airspace protection and/or overflight are compatibility concerns; however, noise or safety or not (page 2-7 of the ALUCP).

2. The following kind of projects proposed in Referral Area 2 require referral to the ALUC for review:

   a. Any proposed object (including buildings, poles, antennas, and other structures) having a height that requires review by the Federal Aviation Administration in accordance with Part 77 of the Federal Aviation Regulations.

b. Any project or plan (e.g. Habitat Conservation Plan) proposing open water areas or landscaping features having the potential to cause an increase in the attraction of birds or other wildlife that can be hazardous to aircraft operations in the vicinity of the airport.

c. Any project having the potential to create electrical or visual hazards to aircraft in flight, including:
   - Electrical interference with radio communications or navigational signals;
   - Lighting which could be mistaken for Airport lighting;
   - Glare in the eyes of pilots of aircraft using the Airport; and
   - Impaired visibility near the Airport

d. Any project having the potential to create a thermal plume extending to an altitude were aircraft fly.

3. The subject site is located with the Modesto City-County Airspace Protection Zones Policy Map, which identifies elevation contours that must be kept clear of obstructions in the airspace from at least 250 feet in height and higher; refer to Map MOD-4.

4. The subject site is also located within the Modesto City-County Airport Overflight Zones requiring Real Estate Disclosure requirements to existing and future residential development; refer to Map MOD-5.

Please feel free to contact me if you desire additional clarification. I can be reached by e-mail at galvezm@stancounty.com or by telephone at (209) 525-6330.

Respectfully,

Miguel A. Galvez,
Secretary, Stanislaus County Airport Land Use Commission

Attachments:

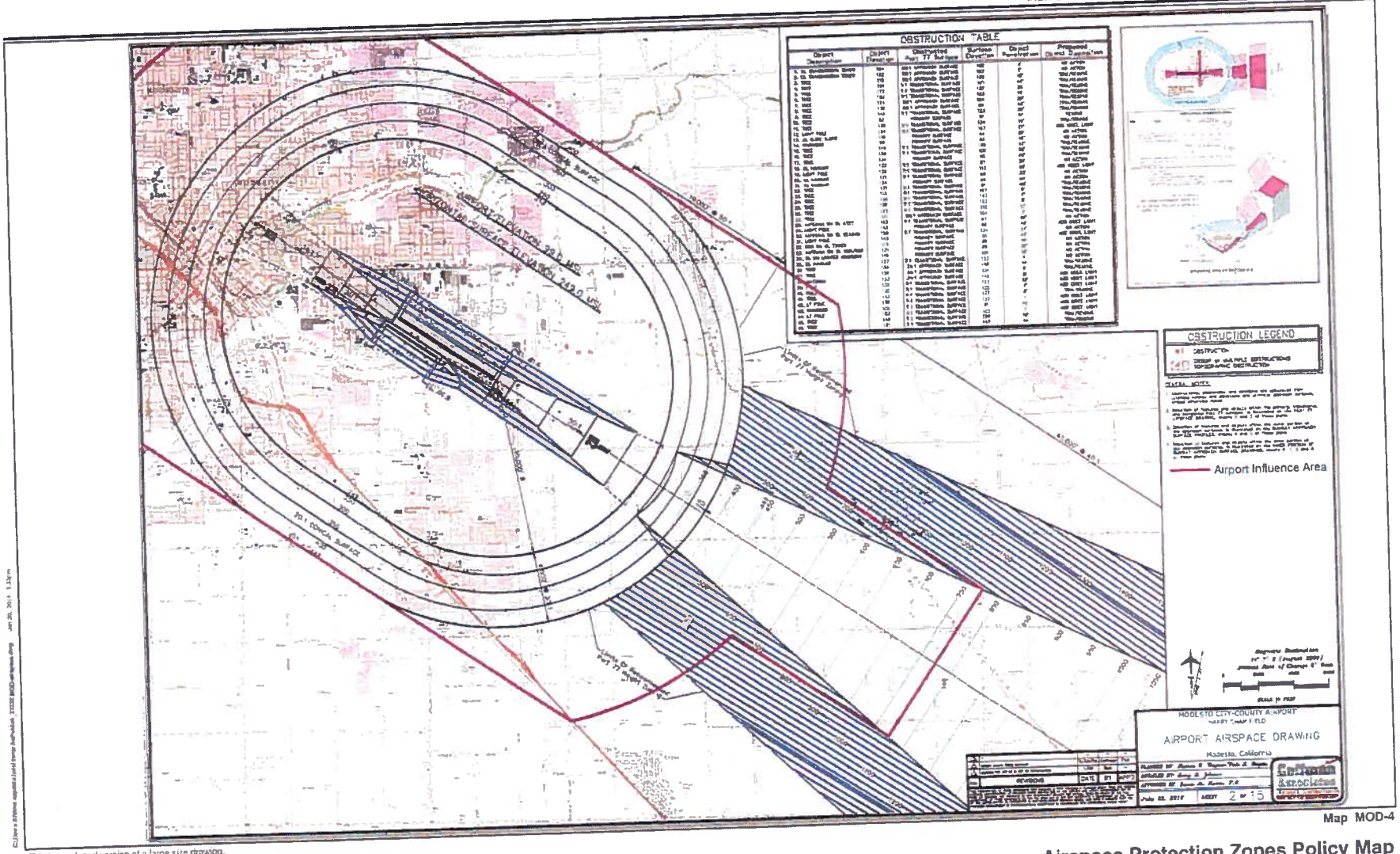
2016 Stanislaus County Airport Land Use Compatibility Plan:
Map MOD-1 Airport Influence Area Map
Map MOD-4 Airspace Protection Zones Policy Map
Map MOD-5 Overflight Zones Policy Map

Mead&Hunt

Stanislaus County
Airport Land Use Compatibility Plans
(Adopted October 2016)

Map MOD-1

Airport Influence Area Policy Map
Modesto City-County Airport

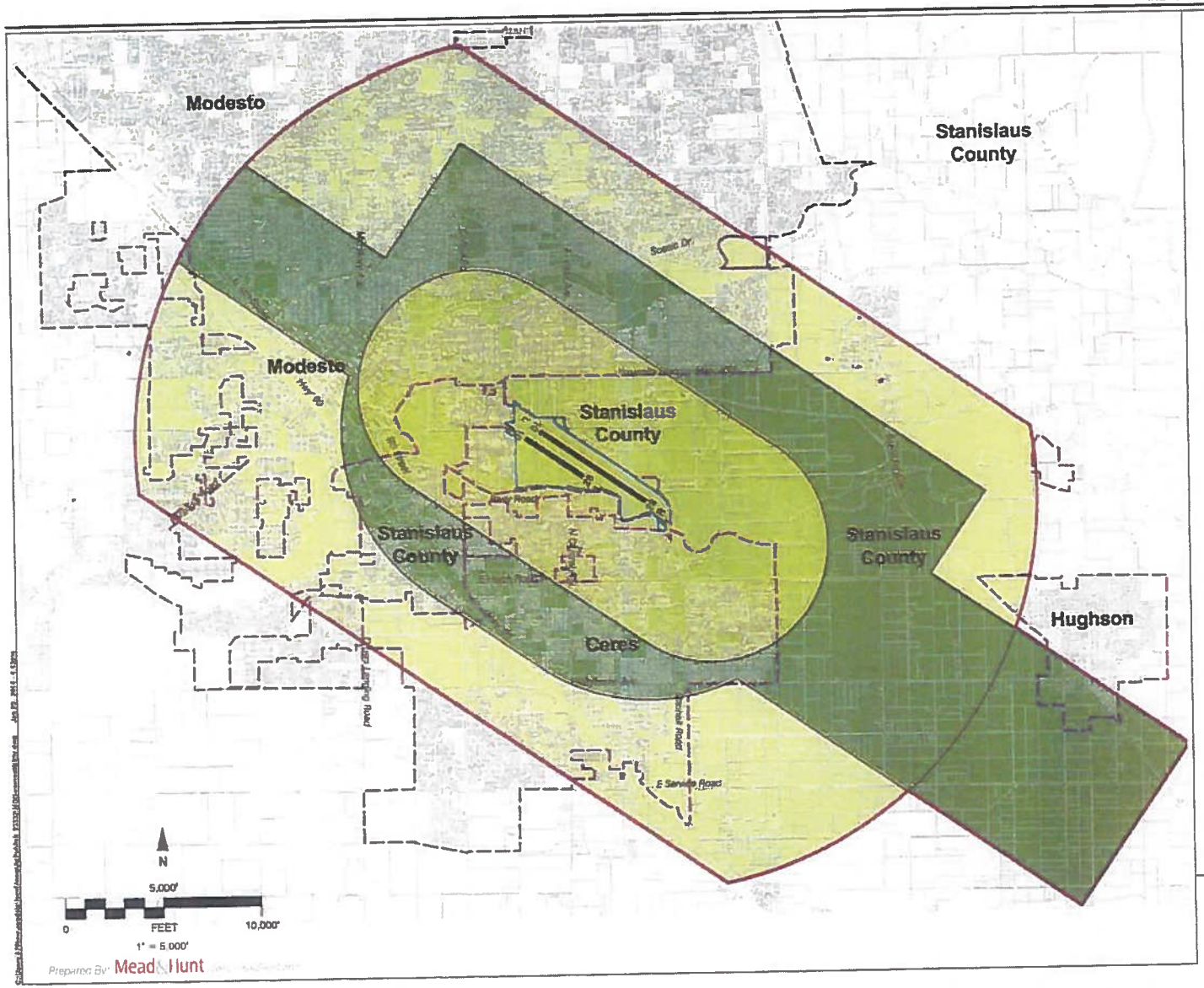


This is a reduced version of a large size drawing.

Map MOD-4

Airspace Protection Zones Policy Map

Modesto City-County Airport



Legend

Boundary Lines

- Airport Property Line/Easements
- City Limits
- Existing Runway
- Future Runway
- Airport Influence Area

Overflight Zones

- Avigation Easement Dedication [1]
- Recorded Deed Notice [2]
- Real Estate Disclosure [3]

Notes

1. Avigation Easement Dedication required within CNEL 60dB noise contour and safety zones 1 through 6 and critical portions of approach and transitional surfaces to where these surfaces intersect the horizontal surface.

2. Recorded Deed Notice required in areas commonly overflown by low flying aircraft (1,500 feet or less above the airport elevation). Along the straight-in/straight-out corridors, zone boundary extends 30,000 feet southeast of Runway 28R and 20,000 feet northwest of Runway 10L. Lateral to the runways, this boundary encompasses the downwind pattern north and south of the airport. For the area south of the airport, zone boundary matches the outer limits of the horizontal surface as defined by FAR Part 77. For the area north of the airport, zone boundary extends 10,000 feet lateral (north) of Runway 10L-28R, 16,000 feet southeast of Runway 28R, and 12,000 feet northwest of Runway 10L. This boundary encompasses outermost touch-and-go pattern and extended downwind pattern used by pilots when the airport is busy (flight track not depicted). Recorded deed notice requirement applies to proposed residential development on parcels of more than 10 acres.

3. Real Estate Disclosure required within entire airport influence area. Zone boundary matches the outer boundary of the FAA height notification surface northwest and southeast of airport runways. Lateral of the runways, zone boundary matches outer limits of the conical surface as defined by FAR Part 77. Real Estate Disclosure requirement applies to existing and future residential development.

Stanislaus County
Airport Land Use Compatibility Plans
(Adopted October 2016)

Map MOD-5

Overflight Zones Policy Map

Modesto City-County Airport

Stanislaus
LAFCO
LOCAL AGENCY FORMATION COMMISSION

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MODESTO, CA 95354

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CITY OF CERES
PLANNING & BUILDING DIVISION

February 28, 2017

Tom Westbrook
2220 Magnolia St.
Ceres, CA 95307

SUBJECT: NOTICE OF PREPARATION OF ENVIRONMENTAL IMPACT REPORT FOR WHITMORE RANCH SPECIFIC PLAN

Dear Mr. Westbrook,

Thank you for the opportunity to review the Notice of Preparation (NOP) for the City's Environmental Impact Report (EIR) to be drafted for the Whitmore Ranch Specific Plan. As Lead Agency, the City of Ceres is responsible for considering the effects, both individual and collective, of all activities involved in the project (Public Resources Code §21000 et seq). LAFCO, as a Responsible Agency, will utilize the CEQA documents prepared by the City in reviewing the proposed annexation of the Master Specific Plan area. The following comments are provided for the City's consideration:

- **Agricultural Resources:** One of LAFCO's main charges, as set forth by the Legislature, is to protect and promote agriculture. The Commission has adopted an Agricultural Preservation Policy (attached) that requires applicants to prepare a "Plan for Agricultural Preservation" for annexation proposals containing agricultural lands. The Plan must include information such as the proposal's direct and indirect impacts to agricultural resources, the availability of other lands in the City's existing boundaries, and relevant General Plan policies. The Plan must also specify the method or strategy proposed to minimize the loss of agricultural lands. The information provided in the Plan should be consistent with the environmental documentation prepared by the City.

- **Williamson Act Lands:** The proposed Specific Plan area includes 7 acres with an active Williamson Act Contract (Contract #76-2417). The Williamson Act is considered a mechanism to preserve agricultural land both in the short and long term. Government Code §56856.5 prohibits the Commission from approving an annexation that contains Williamson Act lands unless it makes specific findings.

- **Plan for Services:** Pursuant to LAFCO policies, the proposal must show that the City has the necessary services available to serve the proposed annexation area. This analysis must include detailed evidence of current service levels, sufficient sewer capacity, sufficient quantities and quality of water, police and fire services, and financing mechanisms. This information can also be used to prepare a "Plan for Services", required by LAFCO Policy and State Law (Government Code §56653), which requires information on the present and future level of services, and evidence that the annexing agency can at least maintain the current level of public services already provided within its boundaries.

- **Special Districts:** The proposed Specific Plan area is currently within the boundary of the Ceres Fire Protection District. Commission policies recognize that city spheres generally take precedence over these districts. Pursuant to LAFCO policy, the Commission will deny proposals that would result in significant immitigable adverse effects upon other service recipients or other agencies servicing the affected area unless the approval is conditioned to avoid such impacts. The environmental analysis should identify whether or not the City intends to detach the territory from these districts and include a discussion of any impacts as a result.

If you have any questions regarding these comments, you can reach me via email at camarenaj@stancounty.com or by phone at (209) 525-7660.

Sincerely,

Javier Camarena
Assistant Executive Officer

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

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CITY OF CERES
PLANNING & BUILDING DIVISION

February 27, 2017

Tom Westbrook
City of Ceres
Director of Community Development
2220 Magnolia Street
Ceres, CA 95307

Project: Notice of Preparation of Environmental Impact Report for Whitmore Ranch Specific Plan

District CEQA Reference No: 20170141

Dear Mr. Westbrook:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the Notice of Preparation (NOP) for the Whitmore Ranch Specific Plan (Project). The proposed Project consists of a range of densities and housing types for as many as 441 new dwelling units, parkland and other open space, existing schools, and supporting infrastructure. The Specific Plan Area encompasses approximately 94 acres that is bounded by Whitmore Avenue on the north, Moore Road on the west, the east side of La Rosa Elementary School on the east, and south side is approximately 1,300 feet south of Whitmore Avenue. The District offers the following comments:

Emissions Analysis

1) At the federal level for the National Ambient Air Quality Standards (NAAQS), the District is currently designated as extreme nonattainment for the 8-hour ozone standards; nonattainment for the PM2.5 standards; and attainment for the 1-Hour ozone, PM10 and CO standards. At the state level, the District is currently designated as nonattainment for the 8-hour ozone, PM10, and PM2.5 California Ambient Air Quality Standards (CAAQS). The District recommends that the Air Quality section of the Environmental Impact Report (EIR) include a discussion of the following impacts:

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

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

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

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a) **Criteria Pollutants:** Project related criteria pollutant emissions should be identified and quantified. The discussion should include existing and post-project emissions.

i) Construction Emissions: Construction emissions are short-term emissions and should be evaluated separate from operational emissions. The District recommends preparation of an Environmental Impact Report (EIR) if annual construction emissions cannot be reduced or mitigated to below the following levels of significance: 10 tons per year of oxides of nitrogen (NOx), 10 tons per year of reactive organic gases (ROG), or 15 tons per year particulate matter of 10 microns or less in size (PM10).

- *Recommended Mitigation:* To reduce impacts from construction related exhaust emissions, the District recommends feasible mitigation for the project to utilize off-road construction fleets that can achieve fleet average emissions equal to or cleaner than the Tier III emission standards, as set forth in §2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 Code of Federal Regulations. This can be achieved through any combination of uncontrolled engines and engines complying with Tier III and above engine standards.

ii) Operational Emissions: Operational Emissions: Permitted (stationary sources) and non-permitted (mobile sources) sources should be analyzed separately. The District recommends preparation of an Environmental Impact Report (EIR) if the sum of annual permitted and the sum of the annual non-permitted emissions each cannot be reduced or mitigated to below the following levels of significance: 10 tons per year of oxides of nitrogen (NOx), 10 tons per year of reactive organic gases (ROG), or 15 tons per year particulate matter of 10 microns or less in size (PM10).

- *Recommended Mitigation:* Project related impacts on air quality can be reduced through incorporation of design elements, for example, that increase energy efficiency, reduce vehicle miles traveled, and reduce construction exhaust related emissions. However, design elements and compliance with District rules and regulations may not be sufficient to reduce Project related impacts on air quality to a less than significant level. Another example of a feasible mitigation measure is the mitigation of Project emissions through a Voluntary Emission Reduction Agreement (VERA). The VERA is an instrument by which the project proponent provides monies to the District, which is used by the District to fund emission reduction projects that achieve the reductions required by the lead agency. District staff is available to meet with project proponents to discuss a VERA for specific projects. For more information, or questions concerning this topic, please call District Staff at (559) 230-6000.

iii) Recommended Model: Project related criteria pollutant emissions should be identified and quantified. Emissions analysis should be performed using CalEEMod (**Cal**ifornia **E**mission **E**stimator **Mod**el), which uses the most recent approved version of relevant Air Resources Board (ARB) emissions models and emission factors. CalEEMod is available to the public and can be downloaded from the CalEEMod website at: www.caleemod.com.

b) **Health Impacts:** Project related health impacts should be evaluated to determine if emissions of toxic air contaminants (TAC) will pose a significant health risk to nearby sensitive receptors. TACs are defined as air pollutants that which may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health. The most common source of TACs can be attributed to diesel exhaust fumes that are emitted from both stationary and mobile sources. Health impacts may require a detailed health risk assessment (HRA).

Prior to conducting an HRA, an applicant may perform a prioritization on all sources of emissions to determine if it is necessary to conduct an HRA. A prioritization is a screening tool used to identify projects that may have significant health impacts. If the project has a prioritization score of 10 or more, the project has the potential to exceed the District's significance threshold for health impacts of 20 in a million and an HRA should be performed.

If an HRA is to be performed, it is recommended that the project proponent contact the District to review the proposed modeling approach. The project would be considered to have a significant health risk if the HRA demonstrates that project related health impacts would exceed the District's significance threshold of 20 in a million.

More information on TACs, prioritizations and HRAs can be obtained by:

- E-mailing inquiries to: hramodeler@valleyair.org; or
- Visiting the District's website at:

  http://www.valleyair.org/busind/pto/Tox_Resources/AirQualityMonitoring.htm.

2) In addition to the discussions on potential impacts identified above, the District recommends the EIR also include the following discussions:

a) A discussion of the methodology, model assumptions, inputs and results used in characterizing the project's impact on air quality. To comply with CEQA requirements for full disclosure, the District recommends that the modeling outputs be provided as appendices to the EIR. The District further recommends that the District be provided with an electronic copy of all input and output files for all modeling.

b) A discussion of the components and phases of the Project and the associated emission projections, including ongoing emissions from each previous phase.

c) A discussion of Project design elements and mitigation measures, including characterization of the effectiveness of each mitigation measure incorporated into the Project.

d) A discussion of whether the Project would result in a cumulatively considerable net increase of any criteria pollutant or precursor for which the San Joaquin Valley Air Basin is in non-attainment. More information on the District's attainment status can be found online by visiting the District's website at:

http://valleyair.org/aqinfo/attainment.htm.

District Rules and Regulations

3) Individual development projects may be subject to District rules and regulations, including: Regulation VIII (Fugitive PM10 Prohibitions), Rule 4102 (Nuisance), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). In the event an existing building will be renovated, partially demolished or removed, the project may be subject to District Rule 4002 (National Emission Standards for Hazardous Air Pollutants).

4) Individual development projects may be subject to District Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review) and will require District permits. Prior to construction, the project proponent should submit to the District an application for an Authority to Construct (ATC). For further information or assistance, the project proponent may contact the District's Small Business Assistance (SBA) Office at (209) 557-6446.

5) Individual development projects would be subject to District Rule 9510 (Indirect Source Review) if upon full build-out the project would include or exceed any one of the following:

- 50 dwelling units
- 2,000 square feet of commercial space;
- 25,000 square feet of light industrial space;
- 100,000 square feet of heavy industrial space;
- 20,000 square feet of medical office space;
- 39,000 square feet of general office space; or
- 9,000 square feet of educational space; or
- 10,000 square feet of government space; or
- 20,000 square feet of recreational space; or
- 9,000 square feet of space not identified above

Any applicant subject to District Rule 9510 is required to submit an Air Impact Assessment (AIA) application to the District no later than applying for final discretionary approval, and to pay any applicable off-site mitigation fees. If approval of the subject project constitutes the last discretionary approval by your agency, the District recommends that demonstration of compliance with District Rule 9510, including payment of all applicable fees, be made a condition of project approval. Information about how to comply with District Rule 9510 can be found online at:

http://www.valleyair.org/ISR/ISRHome.htm.

6) Particulate Matter 2.5 microns or less in size (PM2.5) from under-fired charbroilers (UFCs) pose immediate health risk. Since the cooking of meat can release carcinogenic PM2.5 species like polycyclic aromatic hydrocarbons (PAH), controlling emissions from under-fired charbroilers will have a substantial positive impact on public health.

   Charbroiling emissions occur in populated areas, near schools and residential neighborhoods, resulting in high exposure levels for sensitive Valley residents. The air quality impacts on neighborhoods near restaurants with UFCs can be significant on days when meteorological conditions are stable, when dispersion is limited and emissions are trapped near the surface within the surrounding neighborhoods. This potential for neighborhood-level concentration of emissions during evening or multi-day stagnation events raises environmental concerns.

   In addition, the cooking emissions source category is one of the largest single contributors of directly emitted PM2.5 in the Valley. Photochemical modeling conducted for the 2012 PM2.5 Plan showed that reducing commercial charbroiling emissions is critical to achieving PM2.5 attainment in the Valley.

   The District committed to amend Rule 4692 (Commercial Charbroiling) in 2016, with a 2017 compliance date, to add emission control requirements for UFCs, as committed to in the District's 2012 PM2.5 Plan. Installing charbroiler emissions control systems during construction of new facilities is likely to result in substantial economic benefit compared to costly retrofitting.

   Therefore, the District strongly recommends that your agency require new restaurants that will operate UFCs to install emission control systems during the construction phase. To ease the financial burden for Valley businesses that wish to install control equipment before it is required, the District is offering incentive funding during the time leading up to the amendment to the rule. Restaurants with UFCs may be eligible to apply for funding to add emission control systems. Please contact the District at (559) 230-5858 for more information.

7) The above list of rules is neither exhaustive nor exclusive. To identify other District rules or regulations that apply to this Project or to obtain information about District permit requirements, the applicant is strongly encouraged to contact the District's

Small Business Assistance (SBA) Office at (209) 557-6446. Current District rules can be found online at the District's website at:

www.valleyair.org/rules/1ruleslist.htm.

The District recommends that a copy of the District's comments be provided to the Project proponent. If you have any questions or require further information, please call Michael Corder at (559) 230-5818.

Sincerely,

Arnaud Marjollet
Director of Permit Services

for:

Brian Clements
Program Manager

AM: mc

Stanislaus County
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CHIEF EXECUTIVE OFFICE

Stan Risen
Chief Executive Officer

Patricia Hill Thomas
Chief Operations Officer/
Assistant Executive Officer

Keith D. Boggs
Assistant Executive Officer

Jody Hayes
Assistant Executive Officer

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Post Office Box 3404, Modesto, CA 95353-3404

Phone: 209.525.6333 Fax 209.544.6226

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CITY OF CERES
PLANNING & BUILDING DIVISION

STANISLAUS COUNTY ENVIRONMENTAL REVIEW COMMITTEE

March 2, 2017

Tom Westbrook, Director
City of Ceres
Planning and Building Division ~ Community Development
2220 Magnolia Street
Ceres, CA 95307

SUBJECT: ENVIRONMENTAL REFERRAL – CITY OF CERES – WHITMORE RANCH SPECIFIC PLAN – NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT

Mr. Westbrook:

Thank you for the opportunity to review and comment on the above-referenced project.

The Stanislaus County Environmental Review Committee (ERC) has reviewed the subject project and provides the following comments:

Traffic/Circulation

Exhibit 5 of the Notice of Preparation (NOP) provides a Conceptual Site Plan with the proposed circulation network. The Low, Medium, and High Density Residential uses in the proposed plan will result in increased traffic. Stanford Avenue is shown in multiple phased segments to be constructed as "Future" or "Optional." Public Works considers Stanford Avenue a project necessity for the safe and efficient circulation of traffic through and around the proposed site and surrounding County area. This includes Cesar Chavez Junior High and La Rosa Elementary. A full segment of Stanford Avenue from Eastgate Boulevard to Moore Road should be part of the proposed project to help alleviate the increased traffic demand. It will also serve as a secondary east/west access to the junior high and elementary schools and will prevent new shortcut routes through the residential neighborhood.

Land shown to the south on Exhibit 3 of the NOP, the City General Plan Land Use map, is designated as Light Industrial and Regional Commercial. The proposed circulation for this residential specific plan should ensure there is a separation in future uses so as to not direct commercial and industrial traffic through the residential and school lands, while maintaining the needed circulation mentioned in the previous comment.

The ERC appreciates the opportunity to comment on this project.

Sincerely,

Patrick Cavanah
Management Consultant
Environmental Review Committee

PC:ss

cc: ERC Members

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March 1, 2017

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PLANNING & BUILDING DIVISION

City of Ceres
Planning and Building Division
Attn: James Michaels
2220 Magnolia Street
Ceres, CA 95307

RE: Whitmore Ranch Specific Plan- NOP of EIR

Dear Mr. Michaels:

The Turlock Irrigation District (District) acknowledges the opportunity to review and comment on the referenced project. District standards require development occurring within the District's boundary that impacts irrigation and electric facilities, to meet the District's requirements.

A review of District records indicates there are 4 irrigation distribution pipelines systems within the Specific Plan area. Three of these lines serve only the plan area and the fourth serves land both within and south of the plan area. The portion of the fourth line adjacent to the most southwestern LDR block depicted on exhibit 4 will need to be upgraded to current development standards when that area develops. It is likely that the other three lines could be eliminated if an overall strategy for mitigating impacts to irrigation is developed to avoid inefficiencies that can occur when reviewing on a project-by-project basis.

As noted in the report, TID will provide electric service to the plan area as individual projects are developed. This will require appropriately positioned and sized PUEs for the dry utilities. It is important that there is adequate separation between the dry utilities and the large trees in the proposed park/open spaces adjacent to the public right of ways. Specific easement requirements will be determined when the subdivision maps are prepared for the project area.

If you have any questions concerning irrigation system requirements, please contact me at (209) 883-8367. Questions regarding electric utility requirements should be directed to David Porath at (209) 883-8659.

Sincerely,

Todd Troglin
Supervising Engineering Technician, Civil
CF: 2017010

APPENDIX B

Air Quality and Greenhouse Gas Emissions Model Inputs and Outputs

Whitmore Ranch Specific Plan EIR

Stanislaus County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	12.20	Acre	12.20	531,432.00	0
City Park	5.20	Acre	5.20	226,512.00	0
Apartments Low Rise	160.00	Dwelling Unit	6.40	160,000.00	458
Condo/Townhouse	85.00	Dwelling Unit	6.60	85,000.00	243
Single Family Housing	196.00	Dwelling Unit	28.00	352,800.00	561

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	46
Climate Zone	3			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Existing school uses will not change from baseline conditions and were not modeled.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	10.00	6.40
tblLandUse	LotAcreage	5.31	6.60
tblLandUse	LotAcreage	63.64	28.00
tblProjectCharacteristics	OperationalYear	2018	2024

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0902	0.9205	0.5098	8.6000e-004	2.5800e-003	0.0472	0.0498	6.8000e-004	0.0439	0.0446	0.0000	79.0952	79.0952	0.0210	0.0000	79.6211
2018	0.7112	6.8602	4.6540	0.0101	1.0888	0.2958	1.3846	0.4641	0.2740	0.7381	0.0000	921.9547	921.9547	0.1820	0.0000	926.5035
2019	0.7770	6.0057	5.4502	0.0160	0.7368	0.1955	0.9323	0.1992	0.1841	0.3834	0.0000	1,467.7172	1,467.7172	0.1490	0.0000	1,471.4425
2020	0.6943	5.4775	5.0599	0.0159	0.7396	0.1654	0.9050	0.2000	0.1557	0.3557	0.0000	1,446.5774	1,446.5774	0.1418	0.0000	1,450.1224
2021	0.6216	4.9538	4.7315	0.0155	0.7368	0.1362	0.8729	0.1992	0.1281	0.3273	0.0000	1,418.3518	1,418.3518	0.1370	0.0000	1,421.7776
2022	0.5419	4.3385	4.2916	0.0144	0.6842	0.1123	0.7965	0.1850	0.1056	0.2906	0.0000	1,311.6238	1,311.6238	0.1294	0.0000	1,314.8575
2023	5.7871	0.3494	0.5973	1.1000e-003	0.0373	0.0175	0.0547	9.9100e-003	0.0163	0.0262	0.0000	97.4833	97.4833	0.0198	0.0000	97.9784
Maximum	**5.7871**	**6.8602**	**5.4502**	**0.0160**	**1.0888**	**0.2958**	**1.3846**	**0.4641**	**0.2740**	**0.7381**	**0.0000**	**1,467.7172**	**1,467.7172**	**0.1820**	**0.0000**	**1,471.4425**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0902	0.9205	0.5098	8.6000e-004	2.5800e-003	0.0472	0.0498	6.8000e-004	0.0439	0.0446	0.0000	79.0951	79.0951	0.0210	0.0000	79.6210
2018	0.7112	6.8602	4.6540	0.0101	1.0888	0.2958	1.3846	0.4641	0.2740	0.7381	0.0000	921.9541	921.9541	0.1820	0.0000	926.5029
2019	0.7770	6.0057	5.4502	0.0160	0.7368	0.1955	0.9323	0.1992	0.1841	0.3834	0.0000	1,467.7168	1,467.7168	0.1490	0.0000	1,471.4422
2020	0.6943	5.4775	5.0599	0.0159	0.7396	0.1654	0.9050	0.2000	0.1557	0.3557	0.0000	1,446.5771	1,446.5771	0.1418	0.0000	1,450.1220
2021	0.6216	4.9538	4.7315	0.0155	0.7368	0.1362	0.8729	0.1992	0.1281	0.3273	0.0000	1,418.3514	1,418.3514	0.1370	0.0000	1,421.7773
2022	0.5419	4.3385	4.2916	0.0144	0.6842	0.1123	0.7965	0.1850	0.1056	0.2906	0.0000	1,311.6235	1,311.6235	0.1294	0.0000	1,314.8572
2023	5.7871	0.3494	0.5973	1.1000e-003	0.0373	0.0175	0.0547	9.9100e-003	0.0163	0.0262	0.0000	97.4832	97.4832	0.0198	0.0000	97.9783
Maximum	**5.7871**	**6.8602**	**5.4502**	**0.0160**	**1.0888**	**0.2958**	**1.3846**	**0.4641**	**0.2740**	**0.7381**	**0.0000**	**1,467.7168**	**1,467.7168**	**0.1820**	**0.0000**	**1,471.4422**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**11-1-2017**	**1-31-2018**	1.4916	1.4916
2	**2-1-2018**	**4-30-2018**	1.7742	1.7742
3	**5-1-2018**	**7-31-2018**	2.1294	2.1294
4	**8-1-2018**	**10-31-2018**	1.9662	1.9662

5	**11-1-2018**	**1-31-2019**	1.8231	1.8231
6	**2-1-2019**	**4-30-2019**	1.6580	1.6580
7	**5-1-2019**	**7-31-2019**	1.7022	1.7022
8	**8-1-2019**	**10-31-2019**	1.7081	1.7081
9	**11-1-2019**	**1-31-2020**	1.6654	1.6654
10	**2-1-2020**	**4-30-2020**	1.5198	1.5198
11	**5-1-2020**	**7-31-2020**	1.5445	1.5445
12	**8-1-2020**	**10-31-2020**	1.5491	1.5491
13	**11-1-2020**	**1-31-2021**	1.5090	1.5090
14	**2-1-2021**	**4-30-2021**	1.3630	1.3630
15	**5-1-2021**	**7-31-2021**	1.4022	1.4022
16	**8-1-2021**	**10-31-2021**	1.4056	1.4056
17	**11-1-2021**	**1-31-2022**	1.3751	1.3751
18	**2-1-2022**	**4-30-2022**	1.2564	1.2564
19	**5-1-2022**	**7-31-2022**	1.2931	1.2931
20	**8-1-2022**	**10-31-2022**	1.2960	1.2960
21	**11-1-2022**	**1-31-2023**	0.7532	0.7532
22	**2-1-2023**	**4-30-2023**	2.4164	2.4164
23	**5-1-2023**	**7-31-2023**	3.5925	3.5925
		Highest	3.5925	3.5925

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0611	0.2027	3.3435	1.2300e-003		0.0315	0.0315		0.0315	0.0315	0.0000	196.3936	196.3936	8.7900e-003	3.5000e-003	197.6572
Energy	0.0601	0.5134	0.2185	3.2800e-003		0.0415	0.0415		0.0415	0.0415	0.0000	1,512.7638	1,512.7638	0.0529	0.0195	1,519.8948
Mobile	1.0013	8.8185	11.0898	0.0554	3.8027	0.0367	3.8394	1.0222	0.0344	1.0566	0.0000	5,133.2757	5,133.2757	0.2571	0.0000	5,139.7031
Waste						0.0000	0.0000		0.0000	0.0000	63.9645	0.0000	63.9645	3.7802	0.0000	158.4693
Water						0.0000	0.0000		0.0000	0.0000	9.1156	69.9813	79.0969	0.9394	0.0228	109.3656
Total	**4.1225**	**9.5346**	**14.6517**	**0.0599**	**3.8027**	**0.1097**	**3.9124**	**1.0222**	**0.1074**	**1.1296**	**73.0801**	**6,912.4144**	**6,985.4945**	**5.0384**	**0.0458**	**7,125.0899**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0611	0.2027	3.3435	1.2300e-003		0.0315	0.0315		0.0315	0.0315	0.0000	196.3936	196.3936	8.7900e-003	3.5000e-003	197.6572
Energy	0.0601	0.5134	0.2185	3.2800e-003		0.0415	0.0415		0.0415	0.0415	0.0000	1,512.7638	1,512.7638	0.0529	0.0195	1,519.8948
Mobile	1.0013	8.8185	11.0898	0.0554	3.8027	0.0367	3.8394	1.0222	0.0344	1.0566	0.0000	5,133.2757	5,133.2757	0.2571	0.0000	5,139.7031
Waste						0.0000	0.0000		0.0000	0.0000	63.9645	0.0000	63.9645	3.7802	0.0000	158.4693
Water						0.0000	0.0000		0.0000	0.0000	9.1156	69.9813	79.0969	0.9394	0.0228	109.3656
Total	**4.1225**	**9.5346**	**14.6517**	**0.0599**	**3.8027**	**0.1097**	**3.9124**	**1.0222**	**0.1074**	**1.1296**	**73.0801**	**6,912.4144**	**6,985.4945**	**5.0384**	**0.0458**	**7,125.0899**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Whitmore Ranch Specific Plan EIR - Stanislaus County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	11/1/2017	2/6/2018	5	70	
2	Site Preparation	Site Preparation	2/7/2018	4/3/2018	5	40	
3	Grading	Grading	4/4/2018	9/4/2018	5	110	
4	Building Construction	Building Construction	9/5/2018	12/6/2022	5	1110	
5	Paving	Paving	12/7/2022	3/21/2023	5	75	
6	Architectural Coating	Architectural Coating	3/22/2023	7/4/2023	5	75	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 275

Acres of Paving: 12.2

Residential Indoor: 1,210,545; Residential Outdoor: 403,515; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 31,886 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	113.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	565.00	171.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0882	0.9191	0.4948	8.3000e-004		0.0472	0.0472		0.0439	0.0439	0.0000	76.5411	76.5411	0.0209	0.0000	77.0643
Total	**0.0882**	**0.9191**	**0.4948**	**8.3000e-004**		**0.0472**	**0.0472**		**0.0439**	**0.0439**	**0.0000**	**76.5411**	**76.5411**	**0.0209**	**0.0000**	**77.0643**

3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9800e-003	1.4600e-003	0.0151	3.0000e-005	2.5800e-003	2.0000e-005	2.6000e-003	6.8000e-004	2.0000e-005	7.1000e-004	0.0000	2.5541	2.5541	1.1000e-004	0.0000	2.5568
Total	**1.9800e-003**	**1.4600e-003**	**0.0151**	**3.0000e-005**	**2.5800e-003**	**2.0000e-005**	**2.6000e-003**	**6.8000e-004**	**2.0000e-005**	**7.1000e-004**	**0.0000**	**2.5541**	**2.5541**	**1.1000e-004**	**0.0000**	**2.5568**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0882	0.9191	0.4948	8.3000e-004		0.0472	0.0472		0.0439	0.0439	0.0000	76.5410	76.5410	0.0209	0.0000	77.0642
Total	**0.0882**	**0.9191**	**0.4948**	**8.3000e-004**		**0.0472**	**0.0472**		**0.0439**	**0.0439**	**0.0000**	**76.5410**	**76.5410**	**0.0209**	**0.0000**	**77.0642**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9800e-003	1.4600e-003	0.0151	3.0000e-005	2.5800e-003	2.0000e-005	2.6000e-003	6.8000e-004	2.0000e-005	7.1000e-004	0.0000	2.5541	2.5541	1.1000e-004	0.0000	2.5568
Total	**1.9800e-003**	**1.4600e-003**	**0.0151**	**3.0000e-005**	**2.5800e-003**	**2.0000e-005**	**2.6000e-003**	**6.8000e-004**	**2.0000e-005**	**7.1000e-004**	**0.0000**	**2.5541**	**2.5541**	**1.1000e-004**	**0.0000**	**2.5568**

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0502	0.5174	0.3011	5.2000e-004		0.0262	0.0262		0.0244	0.0244	0.0000	47.4175	47.4175	0.0131	0.0000	47.7441
Total	**0.0502**	**0.5174**	**0.3011**	**5.2000e-004**		**0.0262**	**0.0262**		**0.0244**	**0.0244**	**0.0000**	**47.4175**	**47.4175**	**0.0131**	**0.0000**	**47.7441**

3.2 Demolition - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1100e-003	8.0000e-004	8.2600e-003	2.0000e-005	1.6200e-003	1.0000e-005	1.6300e-003	4.3000e-004	1.0000e-005	4.4000e-004	0.0000	1.5812	1.5812	6.0000e-005	0.0000	1.5828
Total	**1.1100e-003**	**8.0000e-004**	**8.2600e-003**	**2.0000e-005**	**1.6200e-003**	**1.0000e-005**	**1.6300e-003**	**4.3000e-004**	**1.0000e-005**	**4.4000e-004**	**0.0000**	**1.5812**	**1.5812**	**6.0000e-005**	**0.0000**	**1.5828**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0502	0.5174	0.3011	5.2000e-004		0.0262	0.0262		0.0244	0.0244	0.0000	47.4174	47.4174	0.0131	0.0000	47.7441
Total	**0.0502**	**0.5174**	**0.3011**	**5.2000e-004**		**0.0262**	**0.0262**		**0.0244**	**0.0244**	**0.0000**	**47.4174**	**47.4174**	**0.0131**	**0.0000**	**47.7441**

3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1100e-003	8.0000e-004	8.2600e-003	2.0000e-005	1.6200e-003	1.0000e-005	1.6300e-003	4.3000e-004	1.0000e-005	4.4000e-004	0.0000	1.5812	1.5812	6.0000e-005	0.0000	1.5828
Total	**1.1100e-003**	**8.0000e-004**	**8.2600e-003**	**2.0000e-005**	**1.6200e-003**	**1.0000e-005**	**1.6300e-003**	**4.3000e-004**	**1.0000e-005**	**4.4000e-004**	**0.0000**	**1.5812**	**1.5812**	**6.0000e-005**	**0.0000**	**1.5828**

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3613	0.0000	0.3613	0.1986	0.0000	0.1986	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0913	0.9640	0.4495	7.6000e-004		0.0515	0.0515		0.0474	0.0474	0.0000	69.5198	69.5198	0.0216	0.0000	70.0609
Total	**0.0913**	**0.9640**	**0.4495**	**7.6000e-004**	**0.3613**	**0.0515**	**0.4129**	**0.1986**	**0.0474**	**0.2460**	**0.0000**	**69.5198**	**69.5198**	**0.0216**	**0.0000**	**70.0609**

3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9700e-003	1.4200e-003	0.0147	3.0000e-005	2.8800e-003	2.0000e-005	2.9000e-003	7.6000e-004	2.0000e-005	7.9000e-004	0.0000	2.8111	2.8111	1.1000e-004	0.0000	2.8138
Total	**1.9700e-003**	**1.4200e-003**	**0.0147**	**3.0000e-005**	**2.8800e-003**	**2.0000e-005**	**2.9000e-003**	**7.6000e-004**	**2.0000e-005**	**7.9000e-004**	**0.0000**	**2.8111**	**2.8111**	**1.1000e-004**	**0.0000**	**2.8138**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3613	0.0000	0.3613	0.1986	0.0000	0.1986	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0913	0.9640	0.4495	7.6000e-004		0.0515	0.0515		0.0474	0.0474	0.0000	69.5197	69.5197	0.0216	0.0000	70.0608
Total	**0.0913**	**0.9640**	**0.4495**	**7.6000e-004**	**0.3613**	**0.0515**	**0.4129**	**0.1986**	**0.0474**	**0.2460**	**0.0000**	**69.5197**	**69.5197**	**0.0216**	**0.0000**	**70.0608**

3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9700e-003	1.4200e-003	0.0147	3.0000e-005	2.8800e-003	2.0000e-005	2.9000e-003	7.6000e-004	2.0000e-005	7.9000e-004	0.0000	2.8111	2.8111	1.1000e-004	0.0000	2.8138
Total	**1.9700e-003**	**1.4200e-003**	**0.0147**	**3.0000e-005**	**2.8800e-003**	**2.0000e-005**	**2.9000e-003**	**7.6000e-004**	**2.0000e-005**	**7.9000e-004**	**0.0000**	**2.8111**	**2.8111**	**1.1000e-004**	**0.0000**	**2.8138**

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4770	0.0000	0.4770	0.1978	0.0000	0.1978	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2800	3.2737	1.9299	3.4100e-003		0.1449	0.1449		0.1333	0.1333	0.0000	311.5668	311.5668	0.0970	0.0000	313.9916
Total	**0.2800**	**3.2737**	**1.9299**	**3.4100e-003**	**0.4770**	**0.1449**	**0.6219**	**0.1978**	**0.1333**	**0.3311**	**0.0000**	**311.5668**	**311.5668**	**0.0970**	**0.0000**	**313.9916**

3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0100e-003	4.3400e-003	0.0449	1.0000e-004	8.7900e-003	7.0000e-005	8.8600e-003	2.3400e-003	7.0000e-005	2.4000e-003	0.0000	8.5894	8.5894	3.3000e-004	0.0000	8.5977
Total	**6.0100e-003**	**4.3400e-003**	**0.0449**	**1.0000e-004**	**8.7900e-003**	**7.0000e-005**	**8.8600e-003**	**2.3400e-003**	**7.0000e-005**	**2.4000e-003**	**0.0000**	**8.5894**	**8.5894**	**3.3000e-004**	**0.0000**	**8.5977**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4770	0.0000	0.4770	0.1978	0.0000	0.1978	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2800	3.2737	1.9299	3.4100e-003		0.1449	0.1449		0.1333	0.1333	0.0000	311.5664	311.5664	0.0970	0.0000	313.9913
Total	**0.2800**	**3.2737**	**1.9299**	**3.4100e-003**	**0.4770**	**0.1449**	**0.6219**	**0.1978**	**0.1333**	**0.3311**	**0.0000**	**311.5664**	**311.5664**	**0.0970**	**0.0000**	**313.9913**

3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0100e-003	4.3400e-003	0.0449	1.0000e-004	8.7900e-003	7.0000e-005	8.8600e-003	2.3400e-003	7.0000e-005	2.4000e-003	0.0000	8.5894	8.5894	3.3000e-004	0.0000	8.5977
Total	**6.0100e-003**	**4.3400e-003**	**0.0449**	**1.0000e-004**	**8.7900e-003**	**7.0000e-005**	**8.8600e-003**	**2.3400e-003**	**7.0000e-005**	**2.4000e-003**	**0.0000**	**8.5894**	**8.5894**	**3.3000e-004**	**0.0000**	**8.5977**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1125	0.9824	0.7384	1.1300e-003		0.0630	0.0630		0.0592	0.0592	0.0000	99.8622	99.8622	0.0245	0.0000	100.4739
Total	**0.1125**	**0.9824**	**0.7384**	**1.1300e-003**		**0.0630**	**0.0630**		**0.0592**	**0.0592**	**0.0000**	**99.8622**	**99.8622**	**0.0245**	**0.0000**	**100.4739**

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0385	1.0227	0.1990	2.0500e-003	0.0475	8.6100e-003	0.0561	0.0137	8.2400e-003	0.0220	0.0000	195.3092	195.3092	0.0182	0.0000	195.7635
Worker	0.1296	0.0935	0.9682	2.0500e-003	0.1896	1.5600e-003	0.1912	0.0504	1.4400e-003	0.0518	0.0000	185.2974	185.2974	7.1100e-003	0.0000	185.4753
Total	**0.1681**	**1.1162**	**1.1672**	**4.1000e-003**	**0.2371**	**0.0102**	**0.2473**	**0.0641**	**9.6800e-003**	**0.0738**	**0.0000**	**380.6066**	**380.6066**	**0.0253**	**0.0000**	**381.2388**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1125	0.9824	0.7384	1.1300e-003		0.0630	0.0630		0.0592	0.0592	0.0000	99.8621	99.8621	0.0245	0.0000	100.4738
Total	**0.1125**	**0.9824**	**0.7384**	**1.1300e-003**		**0.0630**	**0.0630**		**0.0592**	**0.0592**	**0.0000**	**99.8621**	**99.8621**	**0.0245**	**0.0000**	**100.4738**

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0385	1.0227	0.1990	2.0500e-003	0.0475	8.6100e-003	0.0561	0.0137	8.2400e-003	0.0220	0.0000	195.3092	195.3092	0.0182	0.0000	195.7635
Worker	0.1296	0.0935	0.9682	2.0500e-003	0.1896	1.5600e-003	0.1912	0.0504	1.4400e-003	0.0518	0.0000	185.2974	185.2974	7.1100e-003	0.0000	185.4753
Total	**0.1681**	**1.1162**	**1.1672**	**4.1000e-003**	**0.2371**	**0.0102**	**0.2473**	**0.0641**	**9.6800e-003**	**0.0738**	**0.0000**	**380.6066**	**380.6066**	**0.0253**	**0.0000**	**381.2388**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3081	2.7508	2.2399	3.5100e-003		0.1683	0.1683		0.1583	0.1583	0.0000	306.8110	306.8110	0.0747	0.0000	308.6795
Total	**0.3081**	**2.7508**	**2.2399**	**3.5100e-003**		**0.1683**	**0.1683**		**0.1583**	**0.1583**	**0.0000**	**306.8110**	**306.8110**	**0.0747**	**0.0000**	**308.6795**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1056	3.0002	0.5478	6.3300e-003	0.1477	0.0225	0.1702	0.0427	0.0216	0.0642	0.0000	601.7274	601.7274	0.0548	0.0000	603.0970
Worker	0.3633	0.2547	2.6625	6.2000e-003	0.5891	4.6800e-003	0.5938	0.1566	4.3100e-003	0.1609	0.0000	559.1788	559.1788	0.0195	0.0000	559.6660
Total	**0.4689**	**3.2549**	**3.2103**	**0.0125**	**0.7368**	**0.0272**	**0.7640**	**0.1992**	**0.0259**	**0.2251**	**0.0000**	**1,160.9062**	**1,160.9062**	**0.0743**	**0.0000**	**1,162.7630**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3081	2.7508	2.2399	3.5100e-003		0.1683	0.1683		0.1583	0.1583	0.0000	306.8106	306.8106	0.0747	0.0000	308.6792
Total	**0.3081**	**2.7508**	**2.2399**	**3.5100e-003**		**0.1683**	**0.1683**		**0.1583**	**0.1583**	**0.0000**	**306.8106**	**306.8106**	**0.0747**	**0.0000**	**308.6792**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1056	3.0002	0.5478	6.3300e-003	0.1477	0.0225	0.1702	0.0427	0.0216	0.0642	0.0000	601.7274	601.7274	0.0548	0.0000	603.0970
Worker	0.3633	0.2547	2.6625	6.2000e-003	0.5891	4.6800e-003	0.5938	0.1566	4.3100e-003	0.1609	0.0000	559.1788	559.1788	0.0195	0.0000	559.6660
Total	**0.4689**	**3.2549**	**3.2103**	**0.0125**	**0.7368**	**0.0272**	**0.7640**	**0.1992**	**0.0259**	**0.2251**	**0.0000**	**1,160.9062**	**1,160.9062**	**0.0743**	**0.0000**	**1,162.7630**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2777	2.5134	2.2072	3.5300e-003		0.1463	0.1463		0.1376	0.1376	0.0000	303.4091	303.4091	0.0740	0.0000	305.2596
Total	**0.2777**	**2.5134**	**2.2072**	**3.5300e-003**		**0.1463**	**0.1463**		**0.1376**	**0.1376**	**0.0000**	**303.4091**	**303.4091**	**0.0740**	**0.0000**	**305.2596**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0844	2.7389	0.4711	6.3000e-003	0.1482	0.0145	0.1627	0.0428	0.0139	0.0567	0.0000	599.0079	599.0079	0.0507	0.0000	600.2762
Worker	0.3322	0.2252	2.3817	6.0300e-003	0.5914	4.5400e-003	0.5959	0.1572	4.1800e-003	0.1614	0.0000	544.1605	544.1605	0.0171	0.0000	544.5866
Total	**0.4166**	**2.9641**	**2.8528**	**0.0123**	**0.7396**	**0.0191**	**0.7586**	**0.2000**	**0.0181**	**0.2181**	**0.0000**	**1,143.1683**	**1,143.1683**	**0.0678**	**0.0000**	**1,144.8628**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2777	2.5134	2.2072	3.5300e-003		0.1463	0.1463		0.1376	0.1376	0.0000	303.4087	303.4087	0.0740	0.0000	305.2592
Total	**0.2777**	**2.5134**	**2.2072**	**3.5300e-003**		**0.1463**	**0.1463**		**0.1376**	**0.1376**	**0.0000**	**303.4087**	**303.4087**	**0.0740**	**0.0000**	**305.2592**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0844	2.7389	0.4711	6.3000e-003	0.1482	0.0145	0.1627	0.0428	0.0139	0.0567	0.0000	599.0079	599.0079	0.0507	0.0000	600.2762
Worker	0.3322	0.2252	2.3817	6.0300e-003	0.5914	4.5400e-003	0.5959	0.1572	4.1800e-003	0.1614	0.0000	544.1605	544.1605	0.0171	0.0000	544.5866
Total	**0.4166**	**2.9641**	**2.8528**	**0.0123**	**0.7396**	**0.0191**	**0.7586**	**0.2000**	**0.0181**	**0.2181**	**0.0000**	**1,143.1683**	**1,143.1683**	**0.0678**	**0.0000**	**1,144.8628**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099
Total	**0.2481**	**2.2749**	**2.1631**	**3.5100e-003**		**0.1251**	**0.1251**		**0.1176**	**0.1176**	**0.0000**	**302.2867**	**302.2867**	**0.0729**	**0.0000**	**304.1099**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0681	2.4790	0.4072	6.2200e-003	0.1476	6.6800e-003	0.1543	0.0426	6.3900e-003	0.0490	0.0000	591.1154	591.1154	0.0489	0.0000	592.3369
Worker	0.3055	0.2000	2.1613	5.8100e-003	0.5891	4.4000e-003	0.5935	0.1566	4.0500e-003	0.1606	0.0000	524.9497	524.9497	0.0153	0.0000	525.3309
Total	**0.3735**	**2.6789**	**2.5685**	**0.0120**	**0.7368**	**0.0111**	**0.7478**	**0.1992**	**0.0104**	**0.2097**	**0.0000**	**1,116.0652**	**1,116.0652**	**0.0641**	**0.0000**	**1,117.6678**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095
Total	**0.2481**	**2.2749**	**2.1631**	**3.5100e-003**		**0.1251**	**0.1251**		**0.1176**	**0.1176**	**0.0000**	**302.2863**	**302.2863**	**0.0729**	**0.0000**	**304.1095**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0681	2.4790	0.4072	6.2200e-003	0.1476	6.6800e-003	0.1543	0.0426	6.3900e-003	0.0490	0.0000	591.1154	591.1154	0.0489	0.0000	592.3369
Worker	0.3055	0.2000	2.1613	5.8100e-003	0.5891	4.4000e-003	0.5935	0.1566	4.0500e-003	0.1606	0.0000	524.9497	524.9497	0.0153	0.0000	525.3309
Total	**0.3735**	**2.6789**	**2.5685**	**0.0120**	**0.7368**	**0.0111**	**0.7478**	**0.1992**	**0.0104**	**0.2097**	**0.0000**	**1,116.0652**	**1,116.0652**	**0.0641**	**0.0000**	**1,117.6678**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2065	1.8895	1.9800	3.2600e-003		0.0979	0.0979		0.0921	0.0921	0.0000	280.3876	280.3876	0.0672	0.0000	282.0669
Total	**0.2065**	**1.8895**	**1.9800**	**3.2600e-003**		**0.0979**	**0.0979**		**0.0921**	**0.0921**	**0.0000**	**280.3876**	**280.3876**	**0.0672**	**0.0000**	**282.0669**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0587	2.1829	0.3494	5.7100e-003	0.1369	5.3700e-003	0.1423	0.0395	5.1300e-003	0.0447	0.0000	542.8972	542.8972	0.0437	0.0000	543.9892
Worker	0.2624	0.1657	1.8274	5.1900e-003	0.5462	3.9500e-003	0.5502	0.1452	3.6300e-003	0.1488	0.0000	469.3874	469.3874	0.0126	0.0000	469.7033
Total	**0.3212**	**2.3486**	**2.1768**	**0.0109**	**0.6831**	**9.3200e-003**	**0.6924**	**0.1847**	**8.7600e-003**	**0.1935**	**0.0000**	**1,012.2846**	**1,012.2846**	**0.0563**	**0.0000**	**1,013.6926**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2065	1.8895	1.9800	3.2600e-003		0.0979	0.0979		0.0921	0.0921	0.0000	280.3872	280.3872	0.0672	0.0000	282.0665
Total	**0.2065**	**1.8895**	**1.9800**	**3.2600e-003**		**0.0979**	**0.0979**		**0.0921**	**0.0921**	**0.0000**	**280.3872**	**280.3872**	**0.0672**	**0.0000**	**282.0665**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0587	2.1829	0.3494	5.7100e-003	0.1369	5.3700e-003	0.1423	0.0395	5.1300e-003	0.0447	0.0000	542.8972	542.8972	0.0437	0.0000	543.9892
Worker	0.2624	0.1657	1.8274	5.1900e-003	0.5462	3.9500e-003	0.5502	0.1452	3.6300e-003	0.1488	0.0000	469.3874	469.3874	0.0126	0.0000	469.7033
Total	**0.3212**	**2.3486**	**2.1768**	**0.0109**	**0.6831**	**9.3200e-003**	**0.6924**	**0.1847**	**8.7600e-003**	**0.1935**	**0.0000**	**1,012.2846**	**1,012.2846**	**0.0563**	**0.0000**	**1,013.6926**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.9300e-003	0.1001	0.1312	2.1000e-004		5.1100e-003	5.1100e-003		4.7000e-003	4.7000e-003	0.0000	18.0248	18.0248	5.8300e-003	0.0000	18.1705
Paving	3.8400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0138**	**0.1001**	**0.1312**	**2.1000e-004**		**5.1100e-003**	**5.1100e-003**		**4.7000e-003**	**4.7000e-003**	**0.0000**	**18.0248**	**18.0248**	**5.8300e-003**	**0.0000**	**18.1705**

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	3.3000e-004	3.6100e-003	1.0000e-005	1.0800e-003	1.0000e-005	1.0900e-003	2.9000e-004	1.0000e-005	2.9000e-004	0.0000	0.9269	0.9269	2.0000e-005	0.0000	0.9275
Total	**5.2000e-004**	**3.3000e-004**	**3.6100e-003**	**1.0000e-005**	**1.0800e-003**	**1.0000e-005**	**1.0900e-003**	**2.9000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.9269**	**0.9269**	**2.0000e-005**	**0.0000**	**0.9275**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.9300e-003	0.1001	0.1312	2.1000e-004		5.1100e-003	5.1100e-003		4.7000e-003	4.7000e-003	0.0000	18.0248	18.0248	5.8300e-003	0.0000	18.1705
Paving	3.8400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0138**	**0.1001**	**0.1312**	**2.1000e-004**		**5.1100e-003**	**5.1100e-003**		**4.7000e-003**	**4.7000e-003**	**0.0000**	**18.0248**	**18.0248**	**5.8300e-003**	**0.0000**	**18.1705**

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	3.3000e-004	3.6100e-003	1.0000e-005	1.0800e-003	1.0000e-005	1.0900e-003	2.9000e-004	1.0000e-005	2.9000e-004	0.0000	0.9269	0.9269	2.0000e-005	0.0000	0.9275
Total	**5.2000e-004**	**3.3000e-004**	**3.6100e-003**	**1.0000e-005**	**1.0800e-003**	**1.0000e-005**	**1.0900e-003**	**2.9000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.9269**	**0.9269**	**2.0000e-005**	**0.0000**	**0.9275**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0294	0.2905	0.4157	6.5000e-004		0.0145	0.0145		0.0134	0.0134	0.0000	57.0766	57.0766	0.0185	0.0000	57.5381
Paving	0.0122					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0416**	**0.2905**	**0.4157**	**6.5000e-004**		**0.0145**	**0.0145**		**0.0134**	**0.0134**	**0.0000**	**57.0766**	**57.0766**	**0.0185**	**0.0000**	**57.5381**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5200e-003	9.3000e-004	0.0104	3.0000e-005	3.4200e-003	2.0000e-005	3.4400e-003	9.1000e-004	2.0000e-005	9.3000e-004	0.0000	2.8254	2.8254	7.0000e-005	0.0000	2.8272
Total	**1.5200e-003**	**9.3000e-004**	**0.0104**	**3.0000e-005**	**3.4200e-003**	**2.0000e-005**	**3.4400e-003**	**9.1000e-004**	**2.0000e-005**	**9.3000e-004**	**0.0000**	**2.8254**	**2.8254**	**7.0000e-005**	**0.0000**	**2.8272**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0294	0.2905	0.4157	6.5000e-004		0.0145	0.0145		0.0134	0.0134	0.0000	57.0765	57.0765	0.0185	0.0000	57.5380
Paving	0.0122					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0416**	**0.2905**	**0.4157**	**6.5000e-004**		**0.0145**	**0.0145**		**0.0134**	**0.0134**	**0.0000**	**57.0765**	**57.0765**	**0.0185**	**0.0000**	**57.5380**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5200e-003	9.3000e-004	0.0104	3.0000e-005	3.4200e-003	2.0000e-005	3.4400e-003	9.1000e-004	2.0000e-005	9.3000e-004	0.0000	2.8254	2.8254	7.0000e-005	0.0000	2.8272
Total	**1.5200e-003**	**9.3000e-004**	**0.0104**	**3.0000e-005**	**3.4200e-003**	**2.0000e-005**	**3.4400e-003**	**9.1000e-004**	**2.0000e-005**	**9.3000e-004**	**0.0000**	**2.8254**	**2.8254**	**7.0000e-005**	**0.0000**	**2.8272**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.7217					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1900e-003	0.0489	0.0679	1.1000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	9.5747	9.5747	5.7000e-004	0.0000	9.5890
Total	**5.7289**	**0.0489**	**0.0679**	**1.1000e-004**		**2.6600e-003**	**2.6600e-003**		**2.6600e-003**	**2.6600e-003**	**0.0000**	**9.5747**	**9.5747**	**5.7000e-004**	**0.0000**	**9.5890**

3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0151	9.1900e-003	0.1033	3.1000e-004	0.0339	2.4000e-004	0.0341	9.0000e-003	2.2000e-004	9.2200e-003	0.0000	28.0066	28.0066	7.0000e-004	0.0000	28.0241
Total	**0.0151**	**9.1900e-003**	**0.1033**	**3.1000e-004**	**0.0339**	**2.4000e-004**	**0.0341**	**9.0000e-003**	**2.2000e-004**	**9.2200e-003**	**0.0000**	**28.0066**	**28.0066**	**7.0000e-004**	**0.0000**	**28.0241**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.7217					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1900e-003	0.0489	0.0679	1.1000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	9.5747	9.5747	5.7000e-004	0.0000	9.5890
Total	**5.7289**	**0.0489**	**0.0679**	**1.1000e-004**		**2.6600e-003**	**2.6600e-003**		**2.6600e-003**	**2.6600e-003**	**0.0000**	**9.5747**	**9.5747**	**5.7000e-004**	**0.0000**	**9.5890**

3.7 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0151	9.1900e-003	0.1033	3.1000e-004	0.0339	2.4000e-004	0.0341	9.0000e-003	2.2000e-004	9.2200e-003	0.0000	28.0066	28.0066	7.0000e-004	0.0000	28.0241
Total	**0.0151**	**9.1900e-003**	**0.1033**	**3.1000e-004**	**0.0339**	**2.4000e-004**	**0.0341**	**9.0000e-003**	**2.2000e-004**	**9.2200e-003**	**0.0000**	**28.0066**	**28.0066**	**7.0000e-004**	**0.0000**	**28.0241**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0013	8.8185	11.0898	0.0554	3.8027	0.0367	3.8394	1.0222	0.0344	1.0566	0.0000	5,133.2757	5,133.2757	0.2571	0.0000	5,139.7031
Unmitigated	1.0013	8.8185	11.0898	0.0554	3.8027	0.0367	3.8394	1.0222	0.0344	1.0566	0.0000	5,133.2757	5,133.2757	0.2571	0.0000	5,139.7031

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,054.40	1,145.60	971.20	3,093,756	3,093,756
City Park	9.83	118.30	87.05	77,613	77,613
Condo/Townhouse	493.85	481.95	411.40	1,407,950	1,407,950
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	1,865.92	1,942.36	1689.52	5,427,086	5,427,086
Total	3,424.00	3,688.21	3,159.17	10,006,405	10,006,405

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	48.40	13.90	37.70	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	7.30	7.50	48.40	13.90	37.70	86	11	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	48.40	13.90	37.70	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.529564	0.031735	0.175601	0.112621	0.019191	0.004761	0.027424	0.090197	0.001836	0.001047	0.004420	0.000822	0.000781
City Park	0.529564	0.031735	0.175601	0.112621	0.019191	0.004761	0.027424	0.090197	0.001836	0.001047	0.004420	0.000822	0.000781
Apartments Low Rise	0.529564	0.031735	0.175601	0.112621	0.019191	0.004761	0.027424	0.090197	0.001836	0.001047	0.004420	0.000822	0.000781
Condo/Townhouse	0.529564	0.031735	0.175601	0.112621	0.019191	0.004761	0.027424	0.090197	0.001836	0.001047	0.004420	0.000822	0.000781
Single Family Housing	0.529564	0.031735	0.175601	0.112621	0.019191	0.004761	0.027424	0.090197	0.001836	0.001047	0.004420	0.000822	0.000781

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	918.2099	918.2099	0.0415	8.5900e-003	921.8078
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	918.2099	918.2099	0.0415	8.5900e-003	921.8078
NaturalGas Mitigated	0.0601	0.5134	0.2185	3.2800e-003		0.0415	0.0415		0.0415	0.0415	0.0000	594.5539	594.5539	0.0114	0.0109	598.0870
NaturalGas Unmitigated	0.0601	0.5134	0.2185	3.2800e-003		0.0415	0.0415		0.0415	0.0415	0.0000	594.5539	594.5539	0.0114	0.0109	598.0870

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	2.99994e+006	0.0162	0.1382	0.0588	8.8000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	160.0883	160.0883	3.0700e-003	2.9300e-003	161.0396
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	1.84888e+006	9.9700e-003	0.0852	0.0363	5.4000e-004		6.8900e-003	6.8900e-003		6.8900e-003	6.8900e-003	0.0000	98.6635	98.6635	1.8900e-003	1.8100e-003	99.2498
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	6.29269e+006	0.0339	0.2900	0.1234	1.8500e-003		0.0234	0.0234		0.0234	0.0234	0.0000	335.8021	335.8021	6.4400e-003	6.1600e-003	337.7976
Total		**0.0601**	**0.5134**	**0.2185**	**3.2700e-003**		**0.0415**	**0.0415**		**0.0415**	**0.0415**	**0.0000**	**594.5539**	**594.5539**	**0.0114**	**0.0109**	**598.0870**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	2.99994e+006	0.0162	0.1382	0.0588	8.8000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	160.0883	160.0883	3.0700e-003	2.9300e-003	161.0396
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	1.84888e+006	9.9700e-003	0.0852	0.0363	5.4000e-004		6.8900e-003	6.8900e-003		6.8900e-003	6.8900e-003	0.0000	98.6635	98.6635	1.8900e-003	1.8100e-003	99.2498
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	6.29269e+006	0.0339	0.2900	0.1234	1.8500e-003		0.0234	0.0234		0.0234	0.0234	0.0000	335.8021	335.8021	6.4400e-003	6.1600e-003	337.7976
Total		**0.0601**	**0.5134**	**0.2185**	**3.2700e-003**		**0.0415**	**0.0415**		**0.0415**	**0.0415**	**0.0000**	**594.5539**	**594.5539**	**0.0114**	**0.0109**	**598.0870**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	807613	234.9438	0.0106	2.2000e-003	235.8644
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	502947	146.3130	6.6200e-003	1.3700e-003	146.8863
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.84576e+006	536.9532	0.0243	5.0200e-003	539.0571
Total		**918.2099**	**0.0415**	**8.5900e-003**	**921.8078**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	807613	234.9438	0.0106	2.2000e-003	235.8644
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	502947	146.3130	6.6200e-003	1.3700e-003	146.8863
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.84576e+006	536.9532	0.0243	5.0200e-003	539.0571
Total		**918.2099**	**0.0415**	**8.5900e-003**	**921.8078**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.0611	0.2027	3.3435	1.2300e-003		0.0315	0.0315		0.0315	0.0315	0.0000	196.3936	196.3936	8.7900e-003	3.5000e-003	197.6572
Unmitigated	3.0611	0.2027	3.3435	1.2300e-003		0.0315	0.0315		0.0315	0.0315	0.0000	196.3936	196.3936	8.7900e-003	3.5000e-003	197.6572

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.5722					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.3712					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0193	0.1650	0.0702	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	191.0445	191.0445	3.6600e-003	3.5000e-003	192.1797
Landscaping	0.0984	0.0377	3.2733	1.7000e-004		0.0181	0.0181		0.0181	0.0181	0.0000	5.3491	5.3491	5.1300e-003	0.0000	5.4774
Total	**3.0611**	**0.2027**	**3.3435**	**1.2200e-003**		**0.0315**	**0.0315**		**0.0315**	**0.0315**	**0.0000**	**196.3936**	**196.3936**	**8.7900e-003**	**3.5000e-003**	**197.6572**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.5722					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.3712					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0193	0.1650	0.0702	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	191.0445	191.0445	3.6600e-003	3.5000e-003	192.1797
Landscaping	0.0984	0.0377	3.2733	1.7000e-004		0.0181	0.0181		0.0181	0.0181	0.0000	5.3491	5.3491	5.1300e-003	0.0000	5.4774
Total	**3.0611**	**0.2027**	**3.3435**	**1.2200e-003**		**0.0315**	**0.0315**		**0.0315**	**0.0315**	**0.0000**	**196.3936**	**196.3936**	**8.7900e-003**	**3.5000e-003**	**197.6572**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	79.0969	0.9394	0.0228	109.3656
Unmitigated	79.0969	0.9394	0.0228	109.3656

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	10.4246 / 6.57206	26.4085	0.3407	8.2400e-003	37.3814
City Park	0 / 6.1957	6.3084	2.9000e-004	6.0000e-005	6.3331
Condo/Townhouse	5.53809 / 3.49141	14.0295	0.1810	4.3800e-003	19.8589
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	12.7702 / 8.05077	32.3504	0.4174	0.0101	45.7922
Total		**79.0969**	**0.9394**	**0.0228**	**109.3656**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	10.4246 / 6.57206	26.4085	0.3407	8.2400e-003	37.3814
City Park	0 / 6.1957	6.3084	2.9000e-004	6.0000e-005	6.3331
Condo/Townhouse	5.53809 / 3.49141	14.0295	0.1810	4.3800e-003	19.8589
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	12.7702 / 8.05077	32.3504	0.4174	0.0101	45.7922
Total		**79.0969**	**0.9394**	**0.0228**	**109.3656**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	63.9645	3.7802	0.0000	158.4693
Unmitigated	63.9645	3.7802	0.0000	158.4693

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	73.6	14.9401	0.8829	0.0000	37.0136
City Park	0.45	0.0914	5.4000e-003	0.0000	0.2263
Condo/Townhouse	39.1	7.9370	0.4691	0.0000	19.6635
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	201.96	40.9961	2.4228	0.0000	101.5660
Total		**63.9645**	**3.7802**	**0.0000**	**158.4693**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	73.6	14.9401	0.8829	0.0000	37.0136
City Park	0.45	0.0914	5.4000e-003	0.0000	0.2263
Condo/Townhouse	39.1	7.9370	0.4691	0.0000	19.6635
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	201.96	40.9961	2.4228	0.0000	101.5660
Total		**63.9645**	**3.7802**	**0.0000**	**158.4693**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Whitmore Ranch Specific Plan EIR

Stanislaus County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	12.20	Acre	12.20	531,432.00	0
City Park	5.20	Acre	5.20	226,512.00	0
Apartments Low Rise	160.00	Dwelling Unit	6.40	160,000.00	458
Condo/Townhouse	85.00	Dwelling Unit	6.60	85,000.00	243
Single Family Housing	196.00	Dwelling Unit	28.00	352,800.00	561

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	46
Climate Zone	3			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Existing school uses will not change from baseline conditions and were not modeled.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	10.00	6.40
tblLandUse	LotAcreage	5.31	6.60
tblLandUse	LotAcreage	63.64	28.00
tblProjectCharacteristics	OperationalYear	2018	2024

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	4.2020	42.8219	23.7115	0.0401	0.1232	2.1945	2.3177	0.0327	2.0435	2.0761	0.0000	4,050.9150	4,050.9150	1.0784	0.0000	4,077.8755
2018	6.9190	59.6082	45.6691	0.1223	18.2141	2.6351	20.7922	9.9699	2.4243	12.3418	0.0000	12,359.5904	12,359.5904	1.9505	0.0000	12,392.9662
2019	6.1624	46.1811	41.9802	0.1205	5.7989	1.5002	7.2991	1.5643	1.4127	2.9770	0.0000	12,151.8358	12,151.8358	1.2874	0.0000	12,184.0199
2020	5.4864	41.9350	38.7758	0.1186	5.7988	1.2638	7.0626	1.5643	1.1895	2.7538	0.0000	11,931.5735	11,931.5735	1.2199	0.0000	11,962.0696
2021	4.9342	38.0502	36.3673	0.1168	5.7987	1.0446	6.8434	1.5642	0.9824	2.5466	0.0000	11,745.4659	11,745.4659	1.1839	0.0000	11,775.0632
2022	4.5195	35.0964	34.4344	0.1148	5.7986	0.8871	6.6857	1.5642	0.8347	2.3989	0.0000	11,546.8517	11,546.8517	1.1509	0.0000	11,575.6252
2023	153.2004	10.2273	14.9442	0.0239	0.9283	0.5110	1.0054	0.2462	0.4702	0.5028	0.0000	2,313.2477	2,313.2477	0.7166	0.0000	2,331.1636
Maximum	**153.2004**	**59.6082**	**45.6691**	**0.1223**	**18.2141**	**2.6351**	**20.7922**	**9.9699**	**2.4243**	**12.3418**	**0.0000**	**12,359.5904**	**12,359.5904**	**1.9505**	**0.0000**	**12,392.9662**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	4.2020	42.8219	23.7115	0.0401	0.1232	2.1945	2.3177	0.0327	2.0435	2.0761	0.0000	4,050.9150	4,050.9150	1.0784	0.0000	4,077.8755
2018	6.9190	59.6082	45.6691	0.1223	18.2141	2.6351	20.7922	9.9699	2.4243	12.3418	0.0000	12,359.5904	12,359.5904	1.9505	0.0000	12,392.9661
2019	6.1624	46.1811	41.9802	0.1205	5.7989	1.5002	7.2991	1.5643	1.4127	2.9770	0.0000	12,151.8358	12,151.8358	1.2874	0.0000	12,184.0199
2020	5.4864	41.9350	38.7758	0.1186	5.7988	1.2638	7.0626	1.5643	1.1895	2.7538	0.0000	11,931.5735	11,931.5735	1.2199	0.0000	11,962.0696
2021	4.9342	38.0502	36.3673	0.1168	5.7987	1.0446	6.8434	1.5642	0.9824	2.5466	0.0000	11,745.4659	11,745.4659	1.1839	0.0000	11,775.0632
2022	4.5195	35.0964	34.4344	0.1148	5.7986	0.8871	6.6857	1.5642	0.8347	2.3989	0.0000	11,546.8517	11,546.8517	1.1509	0.0000	11,575.6252
2023	153.2004	10.2273	14.9442	0.0239	0.9283	0.5110	1.0054	0.2462	0.4702	0.5028	0.0000	2,313.2477	2,313.2477	0.7166	0.0000	2,331.1636
Maximum	**153.2004**	**59.6082**	**45.6691**	**0.1223**	**18.2141**	**2.6351**	**20.7922**	**9.9699**	**2.4243**	**12.3418**	**0.0000**	**12,359.5904**	**12,359.5904**	**1.9505**	**0.0000**	**12,392.9661**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	17.6925	4.4425	38.0817	0.0276		0.5269	0.5269		0.5269	0.5269	0.0000	5,201.8683	5,201.8683	0.1613	0.0942	5,233.9628
Energy	0.3292	2.8131	1.1971	0.0180		0.2274	0.2274		0.2274	0.2274		3,591.1422	3,591.1422	0.0688	0.0658	3,612.4826
Mobile	5.6387	52.5953	66.4229	0.3189	23.0632	0.2179	23.2810	6.1855	0.2040	6.3895		32,590.4468	32,590.4468	1.7563		32,634.3554
Total	**23.6604**	**59.8508**	**105.7016**	**0.3645**	**23.0632**	**0.9722**	**24.0353**	**6.1855**	**0.9583**	**7.1438**	**0.0000**	**41,383.4574**	**41,383.4574**	**1.9865**	**0.1600**	**41,480.8008**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	17.6925	4.4425	38.0817	0.0276		0.5269	0.5269		0.5269	0.5269	0.0000	5,201.8683	5,201.8683	0.1613	0.0942	5,233.9628
Energy	0.3292	2.8131	1.1971	0.0180		0.2274	0.2274		0.2274	0.2274		3,591.1422	3,591.1422	0.0688	0.0658	3,612.4826
Mobile	5.6387	52.5953	66.4229	0.3189	23.0632	0.2179	23.2810	6.1855	0.2040	6.3895		32,590.4468	32,590.4468	1.7563		32,634.3554
Total	**23.6604**	**59.8508**	**105.7016**	**0.3645**	**23.0632**	**0.9722**	**24.0353**	**6.1855**	**0.9583**	**7.1438**	**0.0000**	**41,383.4574**	**41,383.4574**	**1.9865**	**0.1600**	**41,480.8008**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	11/1/2017	2/6/2018	5	70	
2	Site Preparation	Site Preparation	2/7/2018	4/3/2018	5	40	
3	Grading	Grading	4/4/2018	9/4/2018	5	110	
4	Building Construction	Building Construction	9/5/2018	12/6/2022	5	1110	
5	Paving	Paving	12/7/2022	3/21/2023	5	75	
6	Architectural Coating	Architectural Coating	3/22/2023	7/4/2023	5	75	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 275

Acres of Paving: 12.2

Residential Indoor: 1,210,545; Residential Outdoor: 403,515; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 31,886 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	113.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	565.00	171.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.1031	42.7475	23.0122	0.0388		2.1935	2.1935		2.0425	2.0425		3,924.2833	3,924.2833	1.0730		3,951.1070
Total	**4.1031**	**42.7475**	**23.0122**	**0.0388**		**2.1935**	**2.1935**		**2.0425**	**2.0425**		**3,924.2833**	**3,924.2833**	**1.0730**		**3,951.1070**

3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0989	0.0745	0.6993	1.2800e-003	0.1232	1.0100e-003	0.1242	0.0327	9.4000e-004	0.0336		126.6317	126.6317	5.4700e-003		126.7685
Total	**0.0989**	**0.0745**	**0.6993**	**1.2800e-003**	**0.1232**	**1.0100e-003**	**0.1242**	**0.0327**	**9.4000e-004**	**0.0336**		**126.6317**	**126.6317**	**5.4700e-003**		**126.7685**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.1031	42.7475	23.0122	0.0388		2.1935	2.1935		2.0425	2.0425	0.0000	3,924.2833	3,924.2833	1.0730		3,951.1070
Total	**4.1031**	**42.7475**	**23.0122**	**0.0388**		**2.1935**	**2.1935**		**2.0425**	**2.0425**	**0.0000**	**3,924.2833**	**3,924.2833**	**1.0730**		**3,951.1070**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0989	0.0745	0.6993	1.2800e-003	0.1232	1.0100e-003	0.1242	0.0327	9.4000e-004	0.0336		126.6317	126.6317	5.4700e-003		126.7685
Total	**0.0989**	**0.0745**	**0.6993**	**1.2800e-003**	**0.1232**	**1.0100e-003**	**0.1242**	**0.0327**	**9.4000e-004**	**0.0336**		**126.6317**	**126.6317**	**5.4700e-003**		**126.7685**

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7190	38.3225	22.3040	0.0388		1.9386	1.9386		1.8048	1.8048		3,871.7665	3,871.7665	1.0667		3,898.4344
Total	**3.7190**	**38.3225**	**22.3040**	**0.0388**		**1.9386**	**1.9386**		**1.8048**	**1.8048**		**3,871.7665**	**3,871.7665**	**1.0667**		**3,898.4344**

3.2 Demolition - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0875	0.0648	0.6086	1.2600e-003	0.1232	9.9000e-004	0.1242	0.0327	9.1000e-004	0.0336		124.8424	124.8424	4.8700e-003		124.9642
Total	**0.0875**	**0.0648**	**0.6086**	**1.2600e-003**	**0.1232**	**9.9000e-004**	**0.1242**	**0.0327**	**9.1000e-004**	**0.0336**		**124.8424**	**124.8424**	**4.8700e-003**		**124.9642**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7190	38.3225	22.3040	0.0388		1.9386	1.9386		1.8048	1.8048	0.0000	3,871.7665	3,871.7665	1.0667		3,898.4344
Total	**3.7190**	**38.3225**	**22.3040**	**0.0388**		**1.9386**	**1.9386**		**1.8048**	**1.8048**	**0.0000**	**3,871.7665**	**3,871.7665**	**1.0667**		**3,898.4344**

3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0875	0.0648	0.6086	1.2600e-003	0.1232	9.9000e-004	0.1242	0.0327	9.1000e-004	0.0336		124.8424	124.8424	4.8700e-003		124.9642
Total	**0.0875**	**0.0648**	**0.6086**	**1.2600e-003**	**0.1232**	**9.9000e-004**	**0.1242**	**0.0327**	**9.1000e-004**	**0.0336**		**124.8424**	**124.8424**	**4.8700e-003**		**124.9642**

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.5627	48.1988	22.4763	0.0380		2.5769	2.5769		2.3708	2.3708		3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**4.5627**	**48.1988**	**22.4763**	**0.0380**	**18.0663**	**2.5769**	**20.6432**	**9.9307**	**2.3708**	**12.3014**		**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1051	0.0778	0.7304	1.5100e-003	0.1479	1.1800e-003	0.1491	0.0392	1.0900e-003	0.0403		149.8109	149.8109	5.8500e-003		149.9571
Total	**0.1051**	**0.0778**	**0.7304**	**1.5100e-003**	**0.1479**	**1.1800e-003**	**0.1491**	**0.0392**	**1.0900e-003**	**0.0403**		**149.8109**	**149.8109**	**5.8500e-003**		**149.9571**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.5627	48.1988	22.4763	0.0380		2.5769	2.5769		2.3708	2.3708	0.0000	3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**4.5627**	**48.1988**	**22.4763**	**0.0380**	**18.0663**	**2.5769**	**20.6432**	**9.9307**	**2.3708**	**12.3014**	**0.0000**	**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1051	0.0778	0.7304	1.5100e-003	0.1479	1.1800e-003	0.1491	0.0392	1.0900e-003	0.0403		149.8109	149.8109	5.8500e-003		149.9571
Total	**0.1051**	**0.0778**	**0.7304**	**1.5100e-003**	**0.1479**	**1.1800e-003**	**0.1491**	**0.0392**	**1.0900e-003**	**0.0403**		**149.8109**	**149.8109**	**5.8500e-003**		**149.9571**

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	5.0901	59.5218	35.0894	0.0620		2.6337	2.6337		2.4230	2.4230		6,244.4284	6,244.4284	1.9440		6,293.0278
Total	**5.0901**	**59.5218**	**35.0894**	**0.0620**	**8.6733**	**2.6337**	**11.3071**	**3.5965**	**2.4230**	**6.0195**		**6,244.4284**	**6,244.4284**	**1.9440**		**6,293.0278**

3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1167	0.0865	0.8115	1.6700e-003	0.1643	1.3100e-003	0.1656	0.0436	1.2100e-003	0.0448		166.4566	166.4566	6.5000e-003		166.6190
Total	**0.1167**	**0.0865**	**0.8115**	**1.6700e-003**	**0.1643**	**1.3100e-003**	**0.1656**	**0.0436**	**1.2100e-003**	**0.0448**		**166.4566**	**166.4566**	**6.5000e-003**		**166.6190**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	5.0901	59.5218	35.0894	0.0620		2.6337	2.6337		2.4230	2.4230	0.0000	6,244.4284	6,244.4284	1.9440		6,293.0278
Total	**5.0901**	**59.5218**	**35.0894**	**0.0620**	**8.6733**	**2.6337**	**11.3071**	**3.5965**	**2.4230**	**6.0195**	**0.0000**	**6,244.4284**	**6,244.4284**	**1.9440**		**6,293.0278**

3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1167	0.0865	0.8115	1.6700e-003	0.1643	1.3100e-003	0.1656	0.0436	1.2100e-003	0.0448		166.4566	166.4566	6.5000e-003		166.6190
Total	**0.1167**	**0.0865**	**0.8115**	**1.6700e-003**	**0.1643**	**1.3100e-003**	**0.1656**	**0.0436**	**1.2100e-003**	**0.0448**		**166.4566**	**166.4566**	**6.5000e-003**		**166.6190**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883
Total	**2.6795**	**23.3900**	**17.5804**	**0.0269**		**1.4999**	**1.4999**		**1.4099**	**1.4099**		**2,620.9351**	**2,620.9351**	**0.6421**		**2,636.9883**

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9421	24.3302	5.1639	0.0481	1.1576	0.2071	1.3647	0.3332	0.1981	0.5313		5,036.2577	5,036.2577	0.5094		5,048.9918
Worker	3.2974	2.4422	22.9248	0.0473	4.6413	0.0371	4.6785	1.2311	0.0342	1.2653		4,702.3976	4,702.3976	0.1835		4,706.9861
Total	**4.2395**	**26.7724**	**28.0887**	**0.0954**	**5.7990**	**0.2442**	**6.0432**	**1.5643**	**0.2323**	**1.7967**		**9,738.6553**	**9,738.6553**	**0.6929**		**9,755.9779**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099	0.0000	2,620.9351	2,620.9351	0.6421		2,636.9883
Total	**2.6795**	**23.3900**	**17.5804**	**0.0269**		**1.4999**	**1.4999**		**1.4099**	**1.4099**	**0.0000**	**2,620.9351**	**2,620.9351**	**0.6421**		**2,636.9883**

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9421	24.3302	5.1639	0.0481	1.1576	0.2071	1.3647	0.3332	0.1981	0.5313		5,036.2577	5,036.2577	0.5094		5,048.9918
Worker	3.2974	2.4422	22.9248	0.0473	4.6413	0.0371	4.6785	1.2311	0.0342	1.2653		4,702.3976	4,702.3976	0.1835		4,706.9861
Total	**4.2395**	**26.7724**	**28.0887**	**0.0954**	**5.7990**	**0.2442**	**6.0432**	**1.5643**	**0.2323**	**1.7967**		**9,738.6553**	**9,738.6553**	**0.6929**		**9,755.9779**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8304	22.9621	4.5824	0.0477	1.1576	0.1744	1.3320	0.3332	0.1669	0.5001		4,993.4272	4,993.4272	0.4946		5,005.7909
Worker	2.9708	2.1402	20.2341	0.0459	4.6413	0.0359	4.6772	1.2311	0.0331	1.2642		4,566.8285	4,566.8285	0.1615		4,570.8655
Total	**3.8012**	**25.1023**	**24.8165**	**0.0936**	**5.7989**	**0.2103**	**6.0092**	**1.5643**	**0.1999**	**1.7642**		**9,560.2556**	**9,560.2556**	**0.6560**		**9,576.6564**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8304	22.9621	4.5824	0.0477	1.1576	0.1744	1.3320	0.3332	0.1669	0.5001		4,993.4272	4,993.4272	0.4946		5,005.7909
Worker	2.9708	2.1402	20.2341	0.0459	4.6413	0.0359	4.6772	1.2311	0.0331	1.2642		4,566.8285	4,566.8285	0.1615		4,570.8655
Total	**3.8012**	**25.1023**	**24.8165**	**0.0936**	**5.7989**	**0.2103**	**6.0092**	**1.5643**	**0.1999**	**1.7642**		**9,560.2556**	**9,560.2556**	**0.6560**		**9,576.6564**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6627	20.8636	3.9389	0.0473	1.1575	0.1121	1.2696	0.3332	0.1072	0.4404		4,951.4302	4,951.4302	0.4568		4,962.8497
Worker	2.7038	1.8853	17.9884	0.0445	4.6413	0.0347	4.6760	1.2311	0.0319	1.2630		4,427.0802	4,427.0802	0.1402		4,430.5854
Total	**3.3665**	**22.7489**	**21.9273**	**0.0917**	**5.7988**	**0.1468**	**5.9456**	**1.5643**	**0.1392**	**1.7034**		**9,378.5104**	**9,378.5104**	**0.5970**		**9,393.4351**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6627	20.8636	3.9389	0.0473	1.1575	0.1121	1.2696	0.3332	0.1072	0.4404		4,951.4302	4,951.4302	0.4568		4,962.8497
Worker	2.7038	1.8853	17.9884	0.0445	4.6413	0.0347	4.6760	1.2311	0.0319	1.2630		4,427.0802	4,427.0802	0.1402		4,430.5854
Total	**3.3665**	**22.7489**	**21.9273**	**0.0917**	**5.7988**	**0.1468**	**5.9456**	**1.5643**	**0.1392**	**1.7034**		**9,378.5104**	**9,378.5104**	**0.5970**		**9,393.4351**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5389	18.9382	3.4340	0.0468	1.1574	0.0523	1.2097	0.3331	0.0501	0.3832		4,904.8443	4,904.8443	0.4422		4,915.8991
Worker	2.4944	1.6799	16.3582	0.0431	4.6413	0.0337	4.6750	1.2311	0.0310	1.2621		4,287.2577	4,287.2577	0.1257		4,290.3998
Total	**3.0333**	**20.6181**	**19.7921**	**0.0899**	**5.7987**	**0.0860**	**5.8847**	**1.5642**	**0.0811**	**1.6453**		**9,192.1020**	**9,192.1020**	**0.5679**		**9,206.2989**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5389	18.9382	3.4340	0.0468	1.1574	0.0523	1.2097	0.3331	0.0501	0.3832		4,904.8443	4,904.8443	0.4422		4,915.8991
Worker	2.4944	1.6799	16.3582	0.0431	4.6413	0.0337	4.6750	1.2311	0.0310	1.2621		4,287.2577	4,287.2577	0.1257		4,290.3998
Total	**3.0333**	**20.6181**	**19.7921**	**0.0899**	**5.7987**	**0.0860**	**5.8847**	**1.5642**	**0.0811**	**1.6453**		**9,192.1020**	**9,192.1020**	**0.5679**		**9,206.2989**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5015	17.9797	3.1789	0.0464	1.1573	0.0455	1.2027	0.3331	0.0435	0.3766		4,858.0124	4,858.0124	0.4268		4,868.6815
Worker	2.3117	1.5010	14.8921	0.0415	4.6413	0.0326	4.6740	1.2311	0.0300	1.2611		4,134.5058	4,134.5058	0.1122		4,137.3115
Total	**2.8132**	**19.4807**	**18.0710**	**0.0879**	**5.7986**	**0.0781**	**5.8767**	**1.5642**	**0.0735**	**1.6377**		**8,992.5182**	**8,992.5182**	**0.5390**		**9,005.9929**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5015	17.9797	3.1789	0.0464	1.1573	0.0455	1.2027	0.3331	0.0435	0.3766		4,858.0124	4,858.0124	0.4268		4,868.6815
Worker	2.3117	1.5010	14.8921	0.0415	4.6413	0.0326	4.6740	1.2311	0.0300	1.2611		4,134.5058	4,134.5058	0.1122		4,137.3115
Total	**2.8132**	**19.4807**	**18.0710**	**0.0879**	**5.7986**	**0.0781**	**5.8767**	**1.5642**	**0.0735**	**1.6377**		**8,992.5182**	**8,992.5182**	**0.5390**		**9,005.9929**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.4262					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5290**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0614	0.0399	0.3954	1.1000e-003	0.1232	8.7000e-004	0.1241	0.0327	8.0000e-004	0.0335		109.7656	109.7656	2.9800e-003		109.8401
Total	**0.0614**	**0.0399**	**0.3954**	**1.1000e-003**	**0.1232**	**8.7000e-004**	**0.1241**	**0.0327**	**8.0000e-004**	**0.0335**		**109.7656**	**109.7656**	**2.9800e-003**		**109.8401**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.4262					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5290**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0614	0.0399	0.3954	1.1000e-003	0.1232	8.7000e-004	0.1241	0.0327	8.0000e-004	0.0335		109.7656	109.7656	2.9800e-003		109.8401
Total	**0.0614**	**0.0399**	**0.3954**	**1.1000e-003**	**0.1232**	**8.7000e-004**	**0.1241**	**0.0327**	**8.0000e-004**	**0.0335**		**109.7656**	**109.7656**	**2.9800e-003**		**109.8401**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.4262					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4589**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0570	0.0357	0.3599	1.0600e-003	0.1232	8.4000e-004	0.1241	0.0327	7.8000e-004	0.0335		105.6636	105.6636	2.6600e-003		105.7300
Total	**0.0570**	**0.0357**	**0.3599**	**1.0600e-003**	**0.1232**	**8.4000e-004**	**0.1241**	**0.0327**	**7.8000e-004**	**0.0335**		**105.6636**	**105.6636**	**2.6600e-003**		**105.7300**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.4262					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4589**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0570	0.0357	0.3599	1.0600e-003	0.1232	8.4000e-004	0.1241	0.0327	7.8000e-004	0.0335		105.6636	105.6636	2.6600e-003		105.7300
Total	**0.0570**	**0.0357**	**0.3599**	**1.0600e-003**	**0.1232**	**8.4000e-004**	**0.1241**	**0.0327**	**7.8000e-004**	**0.0335**		**105.6636**	**105.6636**	**2.6600e-003**		**105.7300**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	152.5792					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**152.7709**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2686	2.7115	7.9900e-003	0.9283	6.3500e-003	0.9346	0.2462	5.8400e-003	0.2521		795.9988	795.9988	0.0200		796.4991
Total	**0.4296**	**0.2686**	**2.7115**	**7.9900e-003**	**0.9283**	**6.3500e-003**	**0.9346**	**0.2462**	**5.8400e-003**	**0.2521**		**795.9988**	**795.9988**	**0.0200**		**796.4991**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	152.5792					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**152.7709**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.7 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2686	2.7115	7.9900e-003	0.9283	6.3500e-003	0.9346	0.2462	5.8400e-003	0.2521		795.9988	795.9988	0.0200		796.4991
Total	**0.4296**	**0.2686**	**2.7115**	**7.9900e-003**	**0.9283**	**6.3500e-003**	**0.9346**	**0.2462**	**5.8400e-003**	**0.2521**		**795.9988**	**795.9988**	**0.0200**		**796.4991**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.6387	52.5953	66.4229	0.3189	23.0632	0.2179	23.2810	6.1855	0.2040	6.3895		32,590.4468	32,590.4468	1.7563		32,634.3554
Unmitigated	5.6387	52.5953	66.4229	0.3189	23.0632	0.2179	23.2810	6.1855	0.2040	6.3895		32,590.4468	32,590.4468	1.7563		32,634.3554

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,054.40	1,145.60	971.20	3,093,756	3,093,756
City Park	9.83	118.30	87.05	77,613	77,613
Condo/Townhouse	493.85	481.95	411.40	1,407,950	1,407,950
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	1,865.92	1,942.36	1689.52	5,427,086	5,427,086
Total	3,424.00	3,688.21	3,159.17	10,006,405	10,006,405

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	48.40	13.90	37.70	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	7.30	7.50	48.40	13.90	37.70	86	11	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	48.40	13.90	37.70	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.529564	0.031735	0.175601	0.112621	0.019191	0.004761	0.027424	0.090197	0.001836	0.001047	0.004420	0.000822	0.000781
City Park	0.529564	0.031735	0.175601	0.112621	0.019191	0.004761	0.027424	0.090197	0.001836	0.001047	0.004420	0.000822	0.000781
Apartments Low Rise	0.529564	0.031735	0.175601	0.112621	0.019191	0.004761	0.027424	0.090197	0.001836	0.001047	0.004420	0.000822	0.000781
Condo/Townhouse	0.529564	0.031735	0.175601	0.112621	0.019191	0.004761	0.027424	0.090197	0.001836	0.001047	0.004420	0.000822	0.000781
Single Family Housing	0.529564	0.031735	0.175601	0.112621	0.019191	0.004761	0.027424	0.090197	0.001836	0.001047	0.004420	0.000822	0.000781

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.3292	2.8131	1.1971	0.0180		0.2274	0.2274		0.2274	0.2274		3,591.1422	3,591.1422	0.0688	0.0658	3,612.4826
NaturalGas Unmitigated	0.3292	2.8131	1.1971	0.0180		0.2274	0.2274		0.2274	0.2274		3,591.1422	3,591.1422	0.0688	0.0658	3,612.4826

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	8219.02	0.0886	0.7574	0.3223	4.8300e-003		0.0612	0.0612		0.0612	0.0612		966.9431	966.9431	0.0185	0.0177	972.6891
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	5065.44	0.0546	0.4668	0.1986	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.9337	595.9337	0.0114	0.0109	599.4750
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	17240.3	0.1859	1.5888	0.6761	0.0101		0.1285	0.1285		0.1285	0.1285		2,028.2655	2,028.2655	0.0389	0.0372	2,040.3185
Total		**0.3292**	**2.8131**	**1.1970**	**0.0180**		**0.2274**	**0.2274**		**0.2274**	**0.2274**		**3,591.1422**	**3,591.1422**	**0.0688**	**0.0658**	**3,612.4826**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	8.21902	0.0886	0.7574	0.3223	4.8300e-003		0.0612	0.0612		0.0612	0.0612		966.9431	966.9431	0.0185	0.0177	972.6891
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	5.06544	0.0546	0.4668	0.1986	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.9337	595.9337	0.0114	0.0109	599.4750
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	17.2403	0.1859	1.5888	0.6761	0.0101		0.1285	0.1285		0.1285	0.1285		2,028.2655	2,028.2655	0.0389	0.0372	2,040.3185
Total		**0.3292**	**2.8131**	**1.1970**	**0.0180**		**0.2274**	**0.2274**		**0.2274**	**0.2274**		**3,591.1422**	**3,591.1422**	**0.0688**	**0.0658**	**3,612.4826**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	17.6925	4.4425	38.0817	0.0276		0.5269	0.5269		0.5269	0.5269	0.0000	5,201.8683	5,201.8683	0.1613	0.0942	5,233.9628
Unmitigated	17.6925	4.4425	38.0817	0.0276		0.5269	0.5269		0.5269	0.5269	0.0000	5,201.8683	5,201.8683	0.1613	0.0942	5,233.9628

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.1352					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	12.9928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4708	4.0235	1.7121	0.0257		0.3253	0.3253		0.3253	0.3253	0.0000	5,136.3529	5,136.3529	0.0985	0.0942	5,166.8757
Landscaping	1.0937	0.4190	36.3695	1.9200e-003		0.2016	0.2016		0.2016	0.2016		65.5154	65.5154	0.0629		67.0871
Total	**17.6925**	**4.4425**	**38.0817**	**0.0276**		**0.5269**	**0.5269**		**0.5269**	**0.5269**	**0.0000**	**5,201.8683**	**5,201.8683**	**0.1613**	**0.0942**	**5,233.9628**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.1352					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	12.9928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4708	4.0235	1.7121	0.0257		0.3253	0.3253		0.3253	0.3253	0.0000	5,136.3529	5,136.3529	0.0985	0.0942	5,166.8757
Landscaping	1.0937	0.4190	36.3695	1.9200e-003		0.2016	0.2016		0.2016	0.2016		65.5154	65.5154	0.0629		67.0871
Total	**17.6925**	**4.4425**	**38.0817**	**0.0276**		**0.5269**	**0.5269**		**0.5269**	**0.5269**	**0.0000**	**5,201.8683**	**5,201.8683**	**0.1613**	**0.0942**	**5,233.9628**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Road Construction Emissions Model, Version 8.1.0

Daily Emission Estimates for -> Whitmore Ranch Specific Plan Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	6.55	55.96	51.76	3.27	2.07	1.20	2.12	1.87	0.25	0.08	8,092.71	2.24	0.08	8,171.39
Grading/Excavation	6.55	55.96	51.76	3.27	2.07	1.20	2.12	1.87	0.25	0.08	8,092.71	2.24	0.08	8,171.39
Drainage/Utilities/Sub-Grade	6.55	55.96	51.76	3.27	2.07	1.20	2.12	1.87	0.25	0.08	8,092.71	2.24	0.08	8,171.39
Paving	6.55	55.96	51.76	2.07	2.07	0.00	1.87	1.87	0.00	0.08	8,092.71	2.24	0.08	8,171.39
Maximum (pounds/day)	6.546	55.955	51.759	3.267	2.067	1.200	2.119	1.869	0.250	0.081	8,092.711	2.239	0.076	8,171.391
Total (tons/construction project)	0.216	1.847	1.708	0.102	0.068	0.034	0.069	0.062	0.007	0.003	267.059	0.074	0.003	269.656

Notes:	
Project Start Year ->	2018
Project Length (months) ->	3
Total Project Area (acres) ->	0
Maximum Area Disturbed/Day (acres) ->	0
Water Truck Used? ->	Yes

	Total Material Imported/Exported Volume (yd^3/day)		Daily VMT (miles/day)			
Phase	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	0	0	0	0	800	0
Grading/Excavation	0	0	0	0	800	0
Drainage/Utilities/Sub-Grade	0	0	0	0	800	0
Paving	0	0	0	0	800	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for -> Whitmore Ranch Specific Plan Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Grubbing/Land Clearing	0.02	0.18	0.17	0.01	0.01	0.00	0.01	0.01	0.00	0.00	26.71	0.01	0.00	24.46
Grading/Excavation	0.09	0.74	0.68	0.04	0.03	0.02	0.03	0.02	0.00	0.00	106.82	0.03	0.00	97.85
Drainage/Utilities/Sub-Grade	0.08	0.65	0.60	0.04	0.02	0.01	0.02	0.02	0.00	0.00	93.47	0.03	0.00	85.62
Paving	0.03	0.28	0.26	0.01	0.01	0.00	0.01	0.01	0.00	0.00	40.06	0.01	0.00	36.69
Maximum (tons/phase)	0.09	0.74	0.68	0.04	0.03	0.02	0.03	0.02	0.00	0.00	106.82	0.03	0.00	97.85
Total (tons/construction project)	0.22	1.85	1.71	0.10	0.07	0.03	0.07	0.06	0.01	0.00	267.06	0.07	0.00	244.63

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

The CO2e emissions are reported as metric tons per phase.

APPENDIX C

Cultural Resources

Local Government Tribal Consultation List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Type of List Requested

☑ **CEQA Tribal Consultation List (AB 52)** – ***Per Public Resources Code § 21080.3.1, subs. (b), (d), (e) and 21080.3.2***

☑ **General Plan (SB 18)** - ***Per Government Code § 65352.3.***

Local Action Type:

☐ **General Plan** ☐ **General Plan Element** ☐ **General Plan Amendment**

☑ **Specific Plan** ☐ **Specific Plan Amendment** ☐ **Pre-planning Outreach Activity**

Required Information

Project Title: Whitmore Ranch Specific Plan

Local Government/Lead Agency: City of Ceres

Contact Person: Laura Cook

Street Address: 2020 L Street Suite 400

City: Sacramento **Zip:** 95811

Phone: 916-361-6448 **Fax:** 916-414-5850

Email: laura.cook2@aecom.com

Specific Area Subject to Proposed Action

County: Stanislaus **City/Community:** Ceres

Project Description:

The Specific Plan is a tool intended to implement the City's General Plan for the properties located within the Specific Plan Area. The land within Specific Plan Area was identified in the City's General Plan for high-, medium-, and low-density residential development. The General Plan also recognizes the two existing schools that are located within the Specific Plan Area. In the Specific Plan, the City will provide more detailed development guidance based on the broad policy direction provided by the General Plan. This guidance will identify the future location and character of development, including homes, roads, underground infrastructure, drainage, parks and other open space, bicycle and pedestrian facilities,

Additional Request

☑ **Sacred Lands File Search** - ***Required Information:***

USGS Quadrangle Name(s): Ceres, CA

Township: 4S **Range:** 9E **Section(s):** 13

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 FAX

June 2, 2016

Laura Cook
AECOM

Sent via e-mail: laura.cook@aecom.com
Number of pages: 3

RE: Proposed Whitmore Ranch Specific Plan Project, City of Ceres, Ceres USGS Quadrangle, Stanislaus County, California

Dear Ms. Cook:

Attached is a contact list of tribes with traditional lands or cultural places located within the boundaries of the above referenced project. A search of the SFL was completed for the USGS quadrangle information provided with negative results.

Under SB18 and AB52, formal Consultation with California Native American Tribes must be conducted by the lead agency. Our records indicate that the lead agency for this project has not requested a Native American Consultation List for the purposes of formal consultation. Please note that the intent of the referenced codes below is to mitigate impacts to tribal cultural resources, as defined, for SB-18 Planning Projects and California Environmental Quality Act (CEQA) projects under AB-52.

Government Code §65352.3 requires local governments to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of protecting, and/or mitigating impacts to cultural places in creating or amending general plans, including specific plans. As of July 1, 2015, Public Resources Code Sections 21080.3.1 and 21080.3.2 require public agencies to consult with California Native American tribes identified by the NAHC for the purpose mitigating impacts to tribal cultural resources:

> Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section. (Public Resources Code Section 21080.1(d))

The law does not preclude agencies from initiating consultation with the tribes that are culturally and traditionally affiliated with their jurisdictions. The NAHC believes that in fact that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law.

In accordance with Public Resources Code Section 21080.1(d), formal notification must include a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation. The NAHC requests that lead agencies include in their notifications information regarding any cultural resources assessment that has been completed on a potential "area of project affect" (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

   - A listing of any and all known cultural resources have already been recorded on or adjacent to the APE;
   - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;

- If the probability is low, moderate, or high that cultural resources are located in the APE.
- Whether the records search indicates a low, moderate or high probability that unrecorded cultural resources are located in the potential APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

   - Any report that may contain site forms, site significance, and suggested mitigation measurers.

     All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure in accordance with Government Code Section 6254.10.

3. The results of any Sacred Lands File (SFL) check conducted through Native American Heritage Commission.

4. Any ethnographic studies conducted for any area including all or part of the potential APE; and

5. Any geotechnical reports regarding all or part of the potential APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS is not exhaustive, and a negative response to these searches does not preclude the existence of a cultural place. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the case that they do, having the information beforehand well help to facilitate the consultation process.

Lead agencies or agencies potentially undertaking a project are encouraged to send more than one written notice to tribes that are traditionally and culturally affiliated to a potential APE during the 30-day notification period to ensure that the information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance we are able to assure that our consultation list contains current information.

If you have any questions, please contact me at my email address: gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

Native American Contact List
Stanislaus County
June 2, 2016

Tule River Indian Tribe
Neil Peyron, Chairperson
P.O. Box 589 Yokuts
Porterville , CA 93258
chairman@tulerivertribe-nsn.gov
(559) 781-4271

(559) 781-4610 Fax

Tule River Indian Tribe
Joey Garfield, Tribal Archeological
P.O. Box 589 Yokuts
Porterville , CA 93258
(559) 783-8892

(559) 783-8932 Fax

North Valley Yokuts Tribe
Katherine Erolinda Perez, Chairperson
P.O. Box 717 Ohlone/Costanoan
Linden , CA 95236 Northern Valley Yokuts
canutes@verizon.net Bay Miwok
(209) 887-3415

Southern Sierra Miwuk Nation
Lois Martin, Chairperson
P.O. Box 186 Miwok
Mariposa , CA 95338 Pauite
(209) 742-6867 Office Northern Valley Yokut

Southern Sierra Miwuk Nation
Les James, Spiritual Leader
P.O. Box 1200 Miwok
Mariposa , CA 95338 Pauite
(209) 966-3690 Northern Valley Yokut

Tule River Indian Tribe
Kerri Vera, Environmental Department
P.O. Box 589 Yokuts
Porterville , CA 93258
(559) 783-8892

(559) 783-8932 Fax

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person or agency of statutory responsibility as defined in Public Resources Code Sections 21080.3.1 Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Whitmore Ranch Specific Plan Project, City of Ceres, Ceres USGS Quadrangle, Stanislaus County, California.

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

June 1, 2016

Tule River Indian Tribe
Neil Peyron, Chairperson
PO Box 589
Porterville, CA 93258

Subject: Whitmore Ranch Specific Plan

Dear Chairperson Peyron:

On behalf of the City of Ceres, AECOM is conducting a cultural resources assessment of the Whitmore Ranch Specific Plan Area, an approximately 95-acre area located adjacent to, and southeast of the City limits of the City of Ceres, in Stanislaus County, California. The Specific Plan Area consists of multiple adjacent parcels of land located on the Ceres, CA 7.5' USGS Quadrangle, in Township 4S, Range 9E, in the northern half of section 13. Please see the enclosed map for the location of the Specific Plan Area.

The Specific Plan is a tool intended to implement the City's General Plan for the properties located within the Specific Plan Area. The land within Specific Plan Area was identified in the City's General Plan for high-, medium-, and low-density residential development. The General Plan also recognizes the two existing schools that are located within the Specific Plan Area. In the Specific Plan, the City will provide more detailed development guidance based on the broad policy direction provided by the General Plan. This guidance will identify the future location and character of development, including homes, roads, underground infrastructure, drainage, parks and other open space, bicycle and pedestrian facilities, landscaping, and other features of the built environment. The Specific Plan will also provide direction regarding how these features will be constructed and the City's requirements that apply to construction and operation of the proposed land uses.

While the Specific Plan is being developed, the City will also be directing preparation of an Environmental Impact Report (EIR), which will identify potential adverse physical environmental effects associated with implementation of the Specific Plan, as well as feasible mitigation measures that would be required to address potentially significant effects.

This letter is being submitted to formally request any information you may have regarding Tribal Cultural Resources (e.g., burial sites, religious sites, or gathering sites) within or adjacent to the Whitmore Ranch Specific Plan Area. Please provide any comments related to the overall Specific Plan Area to Matthew Gerken, AECOM's Project Manager, at (916) 414-5850; by email at matthew.gerken@aecom.com; or by mail. Mr. Gerken will share all comments with the City of Ceres, and the comments will be considered by the City as they relate to this Specific Plan and the Specific Plan EIR.

Your comments and concerns are very important to the City. You have 30 days from the date of this letter to request consultation. We look forward to hearing from you in the near future.

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

Respectfully,

Laura N. Cook
AECOM Archaeologist

Enclosures: Map
Cc: K. Perez, L. Martin

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

June 1, 2016

Northern Valley Yokuts Tribe
Katherine Erolinda Perez, Chairperson
PO Box 717
Linden, CA 95236

Subject: Whitmore Ranch Specific Plan

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Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

Respectfully,

Laura N. Cook

Laura N. Cook
AECOM Archaeologist

Enclosures: Map
Cc: N. Peyron, L. Martin

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

June 1, 2016

Southern Sierra Miwuk Nation
Lois Martin, Chairperson
PO Box 186
Mariposa, CA 95338

Subject: Whitmore Ranch Specific Plan

Dear Chairperson Martin:

On behalf of the City of Ceres, AECOM is conducting a cultural resources assessment of the Whitmore Ranch Specific Plan Area, an approximately 95-acre area located adjacent to, and southeast of the City limits of the City of Ceres, in Stanislaus County, California. The Specific Plan Area consists of multiple adjacent parcels of land located on the Ceres, CA 7.5' USGS Quadrangle, in Township 4S, Range 9E, in the northern half of section 13. Please see the enclosed map for the location of the Specific Plan Area.

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AECOM
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Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

Respectfully,

Laura N. Cook
AECOM Archaeologist

Enclosures: Map
Cc: K. Perez, N. Peyron

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

Location of Specific Plan (Parcels Highlighted in Green)

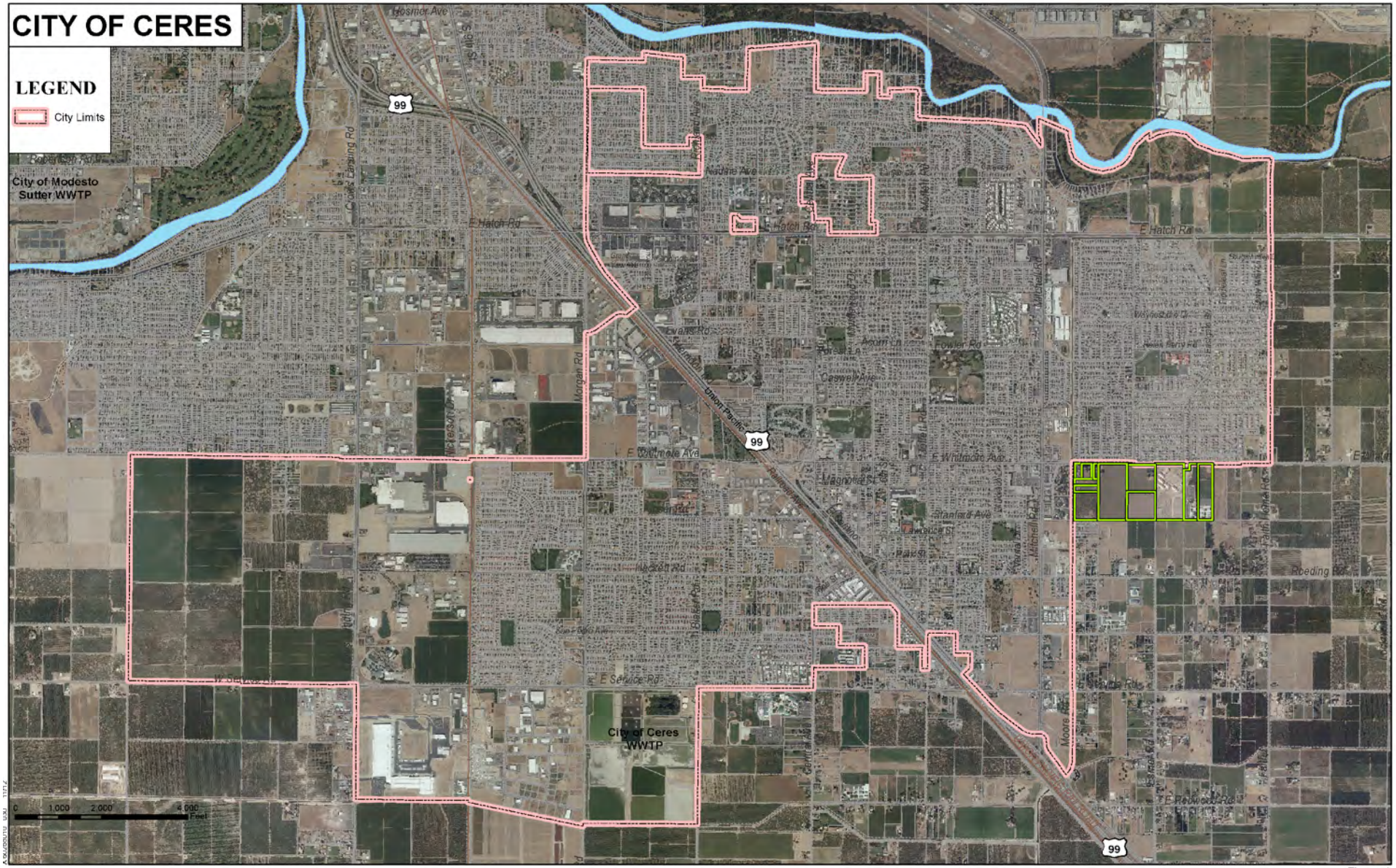

Figure 1
Specific Plan Area

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

September 7, 2016

Tule River Indian Tribe
Neil Peyron, Chairperson
PO Box 589
Porterville, CA 93258

Subject: Whitmore Ranch Specific Plan Second Outreach

Dear Chairperson Peyron:

On June 1, 2016, AECOM sent you a letter on behalf of the City of Ceres inviting you to consult with them on the Whitmore Ranch Specific Plan. Since no response was received from you, AECOM is resending the original letter, which you will find enclosed.

We encourage you to provide information on any Tribal Cultural Resources (e.g., burial sites, religious sites, or gathering sites) within or adjacent to the Whitmore Ranch Specific Plan Area of which you may have knowledge.

Please feel free to provide comments to myself by email laura.cook2@aecom.com; via phone at (916) 361-6448, or mail using the address in the header of this letter. I will pass on pertinent information to the City of Ceres for consideration in the development of this Specific Plan.

Respectfully,

Laura N. Cook

Laura N. Cook
AECOM Archaeologist

Enclosures: Original consultation invite letter and Specific Plan Area map
Cc: K. Perez, L. Martin

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

September 7, 2016

Northern Valley Yokuts Tribe
Katherine Erolinda Perez, Chairperson
PO Box 717
Linden, CA 95236

Subject: Whitmore Ranch Specific Plan Second Outreach

Dear Chairperson Perez:

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Laura N. Cook

Laura N. Cook
AECOM Archaeologist

Enclosures: Original consultation invite letter and Specific Plan Area map
Cc: N. Peyron, L. Martin

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

September 7, 2016

Southern Sierra Miwuk Nation
Lois Martin, Chairperson
PO Box 186
Mariposa, CA 95338

Subject: Whitmore Ranch Specific Plan Second Outreach

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Respectfully,

Laura N. Cook

Laura N. Cook
AECOM Archaeologist

Enclosures: Original consultation invite letter and Specific Plan Area map
Cc: K. Perez, N. Peyron

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Sent To: Katherine Eralinda Perez chairp
Street, Apt. No.; or PO Box No.: P.O. Box 717
City, State, ZIP+4: Linden CA 95236

PS Form 3800, August 2006 — See Reverse for Instructions

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Certified Fee	3.30
Return Receipt Fee (Endorsement Required)	2.70
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 12.45

Postmark Here: matt G.

Sent To: Luis Martin, Chairperson
Street, Apt. No.; or PO Box No.: P.O. Box 186
City, State, ZIP+4: Mariposa CA 95338

PS Form 3800, August 2006 — See Reverse for Instructions

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Certified Fee	3.30
Return Receipt Fee (Endorsement Required)	2.70
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 12.45

Postmark Here: matt G.

Sent To: Neil Peyron, Chairperson
Street, Apt. No.; or PO Box No.: P.O. Box 589
City, State, ZIP+4: Porterville CA 93258

PS Form 3800, August 2006 — See Reverse for Instructions

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Katherine Erulinda Perez, Chairperson
Northern Valley Yokuts Tribe
P.O. Box 717
Linden, CA 95236

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☒ Addressee

B. Received by (Printed Name) Kathy Perez
C. Date of Delivery 9-12-16

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☒ No

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7011 3500 0002 7475 1227

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Lois Martin, Chairperson
Southern Sierra Miwuk Nation
P.O. Box 186
Mariposa, CA 95338

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Lois Martin ☐ Agent ☐ Addressee

B. Received by (Printed Name) Lois Martin
C. Date of Delivery 9/12/2016

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7011 3500 0002 7475 1210

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

Source: AECOM

Photograph 3.5-1. 3206 East Whitmore Avenue, view facing southeast, September 14, 2016.

The Minimal Traditional style rural-residential property built in 1950 at 3206 East Whitmore Avenue (**Photograph 3.5-1**) does not appear to meet the criteria for listing in the California Register of Historic Resources or as a City of Ceres Historic Landmark. This property has no significant association with important historic events or persons. It was a part of mid-twentieth century rural residential development of Ceres and is not demonstrably significant in this context. The house is a modest and unexceptional example of a Minimal Traditional, a residential type that emerged in the 1930s and proliferated in the years following World War II and is found throughout California. Overall, the property lacks historic and architectural significance for state or local eligibility, and therefore is not considered a historical resource for the purposes of CEQA.

Source: AECOM

Photograph 3.5-2. 3320 East Whitmore Avenue, view facing southeast, September 14, 2016.

The Ranch style house rural-residential property built in 1947 at 3230 East Whitmore Avenue (**Photograph 3.5-2**) does not appear to meet the criteria for listing in the California Register of Historic Resources or as a City of Ceres Historic Landmark. This property has no significant association with important historic events or persons. It was a part of mid-twentieth century rural residential development of Ceres and is not demonstrably significant in this context. The Ranch style house on the property is a modest representative of this residential style that became immensely popular in California and throughout the nation from the 1930s through the 1960s. The residence also lacks historic integrity to its original period of construction with a large addition and carport, as well as re-sized replacement vinyl windows throughout. Overall, the property lacks both historic/architectural significance for state or local eligibility, and therefore is not considered a historical resource for the purposes of CEQA.

Source: AECOM

Photograph 3.5-3. 3318 East Whitmore Avenue, view facing southwest, September 14, 2016.

The small Minimal Traditional style rural-residential property built in 1942 at 3318 East Whitmore Avenue (**Photograph 3.5-3**) does not appear to meet the criteria for listing in the California Register of Historic Resources or as a City of Ceres Historic Landmark. This property has no significant association with important historic events. It was a part of mid-twentieth century rural residential development of Ceres and is not demonstrably significant in this context. The house is a modest and unexceptional example of a Minimal Traditional, a residential type that emerged in the 1930s and proliferated in the years following World War II and is found throughout California. The residence also lacks historic integrity to its original period of construction with resized, replacement aluminum windows, replacement stucco siding, and the construction of a large RV outbuilding at the rear of the residence. Overall, the property lacks historic and architectural significance for state or local eligibility, and therefore is not considered a historical resource for the purposes of CEQA.

Source: AECOM

Photograph 3.5-4. 3336 East Whitmore Road, view facing south, September 14, 2016.

The Gable-Front Folk National style house built in 1915 at 3336 East Whitmore Avenue (**Photograph 3.5-4**) does not appear to meet the criteria for listing in the California Register of Historic Resources or as a City of Ceres Historic Landmark. Within the context of local agriculture, the historical record indicates that property was developed during the initial period of development as a fig colony; however, the house is not an important representative of early or transformative developments of farming or ranching in this part of Stanislaus County. Nor are there any orchards remaining on the parcel that are associated with the agricultural development of the property. The residence also lacks historic integrity to its original period of construction with replacement vinyl windows, construction of an attached two-car garage dating to the mid-twentieth century off the west side, and other additions on the south and east sides of the residence. Overall, this property lacks both historic/architectural significance and is therefore not considered a historical resource for the purposes of CEQA.

Source: AECOM

Photograph 3.5-5. 2700 Moore Road, view facing southeast, September 14, 2016.

The Minimal Traditional style rural-residential property built in 1946 at 2700 Moore Road (**Photograph 3.5-5**) does not appear to meet the criteria for listing in the California Register of Historic Resources or as a City of Ceres Historic Landmark. This property has no significant association with important historic events or persons. It was a part of mid-twentieth century rural residential development of Ceres and is not demonstrably significant in this context. The house is a modest and unexceptional example of a Minimal Traditional, a residential type that emerged in the 1930s and proliferated in the years following World War II and is found throughout California. The residence also lacks historic integrity to its original period of construction with the addition of a full-width multiple-arch porch to the east side altering the roof line and massing of the residence, a porch addition added to the south side secondary entrance, and resized and replacement vinyl windows installed throughout. Overall, the property lacks historic and architectural significance for state or local eligibility, and therefore is not considered a historical resource for the purposes of CEQA.

.

Source: AECOM

Photograph 3.5-6. Representative view of concrete irrigation structures in project area, view facing south, September 4, 2016.

The vacant agricultural parcels along the south side of East Whitmore Avenue at APN 069-017-008, 069-017-012, and 069-017-013 have concrete irrigation structures that supply water from the TID Ceres Main Canal to the west along Moore Road (**Photograph 3.5-6**). Review of historic maps and aerials reveals that the irrigation structures were added sometime after 1967 and appear to be older than 45 years old. As a later secondary irrigation structure, it does not appear to meet the criteria for listing in the California Register of Historic Resources or as a City of Ceres Historic Landmark. The irrigation structures herein are part of a localized secondary distribution channel that carries from the Ceres Main Canal. This small distribution channel was one of numerous ditches that were built by individuals or groups of landowners to divert water from the Ceres Main Canal. While this secondary ditches served a valuable irrigation function by providing water to individual farms, it does not represent a significant resource under the theme or irrigated agriculture. As a secondary water conveyance system, this ditch only served a small number of property owners and does not have an important, direct association with the expansive growth of agriculture in this part of Stanislaus County, or associated with any important persons. This type of water conveyance structure was common for its period and no significant engineering was necessary for its design or use. Because the feature lacks both historic/architectural significance for state or local eligibility, it is therefore not considered a historical resource for the purposes of CEQA.

Source: AECOM

Photograph 3.5-7. 3548 East Whitmore Avenue, view facing southwest, September 14, 2016.

The Ranch style rural-residential house built in 1967 at 3548 East Whitmore Avenue (**Photograph 3.5-7**) does not appear to meet the criteria for listing in the California Register of Historic Resources or as a City of Ceres Historic Landmark. This property has no significant association with important historic events or persons. It was a part of mid-twentieth century rural residential development of Ceres and is not demonstrably significant in this context. The Ranch style house on the property is a highly altered representative of this residential style that became immensely popular in California and throughout the nation from the 1930s through the 1960s. The residence lacks historic integrity to its original period of construction with recently alterations to the property including resized replacement vinyl windows installed throughout, modification of the primary north facing façade with a hipped roof and shed roof porch projections with column porch supports. Overall, the property lacks both historic/architectural significance and therefore is not considered a historical resource for the purposes of CEQA.

APPENDIX D

Phase I Environmental Site Assessment

City of Ceres
Whitmore Ranch Specific Plan Area
Ceres, Stanislaus County, California

Phase I Environmental Site Assessment

Prepared for:
City of Ceres, California

AECOM

October 2016

City of Ceres
Whitmore Ranch Specific Plan Area
Ceres, Stanislaus County, California

Phase I Environmental Site Assessment

Prepared for:
City of Ceres
2220 Magnolia Street
Ceres, California 95307

Prepared by:
AECOM
2020 L Street, Suite 400
Sacramento, CA 95811

Contact:
Matthew Gerken
916/414-5892

AECOM

60492374
10.18.16

October 2016

TABLE OF CONTENTS

Section **Page**

Appendices

Exhibits

Tables

ACRONYMS AND ABBREVIATIONS

AAI	All Appropriate Inquiry
AECOM	AECOM Technical Services, Inc.
AST	aboveground storage tank
ASTM	American Society of Testing and Materials
ASTM E 1527-13	Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process
ASTs	aboveground storage tanks
bgs	below ground surface
CFR	Code of Federal Regulations
CHHSLs	California Human Health Screening Levels
City	City of Ceres
Client	City of Ceres
CREC	controlled REC
DTSC	California Department of Toxic Substances Control
ECHO	Enforcement and Compliance History Online
EDR	Environmental Data Resources
Envirofacts	Envirofacts Data Warehouse
ESA	Environmental Site Assessment
HREC	historical REC
HVAC	heating, venting, and air conditioning
NRCS	Natural Resources Conservation Service
PEAs	Preliminary Environmental Assessments
RECs	recognized environmental conditions
SCEHD	Stanislaus County Environmental Health Department
SCFD	Stanislaus County Fire Department
Superfund	Comprehensive Environmental Response, Compensation, and Liability Act
TPH	total petroleum hydrocarbons
USEPA	U.S. Environmental Protection Agency
UST	underground storage tank

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EXECUTIVE SUMMARY

AECOM Technical Services, Inc. (AECOM) has completed this Phase I Environmental Site Assessment (ESA) for a multi-parcel property (subject property) in Ceres, Stanislaus County, California, in accordance with the *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E 1527-13). Any exceptions to, or deletions from, this practice are described in Chapter 1, "Introduction," of this document. This ESA was prepared for the exclusive use of the City of Ceres (Client).

The rectangular-shaped subject property is located in an unincorporated area of Ceres, approximately 1.5 miles east of Highway 99 and consists of 17 parcels, totaling approximately 93 acres. It is bordered to the north by East Whitmore Avenue and residential properties; to the east by agricultural farmland; to the west by Moore Road, the Turlock Irrigation District Canal, and the Casa Grande Village apartment complex; and to the south by fallow farm land.

Historical research indicates that the subject property and adjacent properties have been used to grow various agricultural crops or orchards since the 1930s or earlier. Based on its past and current agricultural use and review of previous reports prepared for portions of the subject property, the likely presence of organochloride pesticides and other agrochemicals site soil exists. Pesticides may have been stored in the current and former shop buildings. Mixing of pesticides may have occurred near the irrigation wells. Termiticides may have been used near wood-frame structures. Lead-based paint may have been used on the current and former structures. This constitutes a significant data gap for the subject property.

AECOM performed a visual inspection of the subject property on September 21, 2016. Several parcels were inaccessible at the time of the site visit. Therefore, inspections of those parcels were performed from adjacent properties or public rights-of-way. Potentially hazardous materials or waste (i.e., stored in steel or plastic drums) were observed on two of the accessible parcels. This constitutes a significant data gap for the subject property. No other hazardous materials or waste were observed.

Contact information for previous or current property owners was not provided to AECOM; therefore, interviews with property owners or occupants were not conducted during this Phase I ESA. This constitutes a significant data gap for the subject property.

The subject property was not identified on any regulatory databases researched by Environmental Data Resources (EDR), except for the California Department of Toxic Substances Control's EnviroStor database for Preliminary Environmental Assessments, completed for the Cesar Chavez Junior High School and La Rosa Elementary School in 2008 and 2003, respectively, both located within the subject property.

Surrounding areas identified on EDR databases are not expected to pose a significant environmental risk for the subject property. Vapor encroachment is not expected to pose a significant environmental risk for the site because of the lack of any identifiable soil or groundwater contamination on or near the subject property.

Records reviewed at County agencies indicate the presence of one historical 300-gallon diesel aboveground storage tank (AST) formerly located at the property currently occupied by Cesar Chavez Junior High School. However, this AST likely was removed during construction of the school. County records also indicated the presence of septic tanks on several of the subject property parcels.

This assessment did not reveal any recognized environmental conditions (RECs), controlled RECs, or historical RECs in connection with the subject property, except for the following:

- *Suspected presence of one 300-gallon underground storage tank* (UST) – According to information provided in the EDR report, parcel 069017007 maintained one 300-gallon UST used to store paint thinner. Whether the UST has been removed from property is unknown. The parcel was inaccessible at the time of AECOM's site reconnaissance; therefore, no additional information regarding the UST was obtained during this Phase I ESA. The reported presence of the UST represents a REC in connection with the subject property.

Although not considered RECs, the following site features are considered items of concern:

- *Drums stored on unpaved surfaces* – Two 55-gallon plastic drums were observed near the eastern boundary of parcel 069017008. The drums were unlabeled, appeared to be structurally competent, and were stored on open dry grass. The contents of the drums are unknown. Also, several steel drums were observed in a corrugated metal building on parcel 069017004. The ground surface beneath and surrounding the drums was not observed; thus, soil conditions in the immediate area of the drums could not be evaluated. The contents of the drums are unknown. The potential for soil impacts exists and this constitutes an item of concern for the subject property.

  The contents of the drums should be sampled and analyzed. If it is determined that the contents are hazardous, then the drums and contents should be properly disposed of by a qualified professional. Additionally, if the contents of the drums are confirmed to be hazardous, soil in the immediate vicinity of the drums should be sampled and analyzed by a qualified professional for potential impacts.

- *Existing domestic wells* – One domestic well on parcel 069017003 was observed during AECOM's site reconnaissance. Because of the rural setting of the subject property, the presence of additional domestic wells is likely. Depending on the planned use of the subject property, the water supply wells represent a direct conduit to groundwater and should be properly destroyed if they are no longer in use or needed.

- *Existing septic tanks* – According to records maintained at the Stanislaus County Environmental Health Department, subject property parcels maintain multiple septic tanks within various subject property parcels. Evidence of one septic tank on parcel 069017003 was observed and confirmed by the property owner during AECOM's site visit. Depending on the planned use of the subject property, all septic tanks and leach lines should be removed properly and disposed if they are no longer needed.

1 INTRODUCTION

1.1 PURPOSE

AECOM was retained by the City of Ceres (City, Client) to conduct a Phase I Environmental Site Assessment (ESA) of an approximate 93-acre area containing 17 parcels of mixed use in Ceres, Stanislaus County, California (subject property or subject site) (Exhibit 1).

The purpose of this ESA is to provide a professional opinion on the potential for the presence of recognized environmental conditions (RECs) subject property, including potential impacts from known environmental concerns in the surrounding area. The term "recognized environmental condition," as defined by American Society of Testing and Materials (ASTM) Standard E 1527-13, means:

> The presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment, or (3) under conditions that pose a material threat of a future release to the environment.

A historical REC (HREC) is defined as:

> A past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

A controlled REC (CREC) is defined as:

> A recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by issuance of a No Further Action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

This ESA was conducted in general accordance with the recommended guidelines established by ASTM Standard E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM 2013). This ESA report is generally consistent with the standards and practices set forth in Title 40, Part 312, of the Code of Federal Regulations (CFR) for All Appropriate Inquiry (AAI). In this document, hazardous substances and petroleum products are referred to jointly as "hazardous materials."

1.2 SCOPE OF WORK

On June 9, 2016, the City authorized the scope of work for this ESA. AECOM performed the following:

- contacted Environmental Data Resources (EDR) to provide a regulatory database search of known underground storage tanks (USTs), landfills, hazardous waste generation/treatment/storage/disposal facilities, and subsurface contamination in the surrounding area within specified radii of the subject property;

- reviewed geologic maps and literature from the EDR topographic map report for information on physical and topographic settings of the subject property (EDR 2016d);

- researched subject property history by (a) reviewing aerial photographs covering the subject property and adjoining property, (b) reviewing topographic maps, and (c) researching the availability of fire insurance maps and city directories of the subject property and vicinity;

- conducted a reconnaissance of the subject property (where accessible) for obvious evidence of potential contamination, such as current hazardous materials storage or use, unusually stained soils/slabs/pavements, drains/sumps/drums/ tanks/electrical transformers, stressed vegetation, and discarded hazardous materials containers;

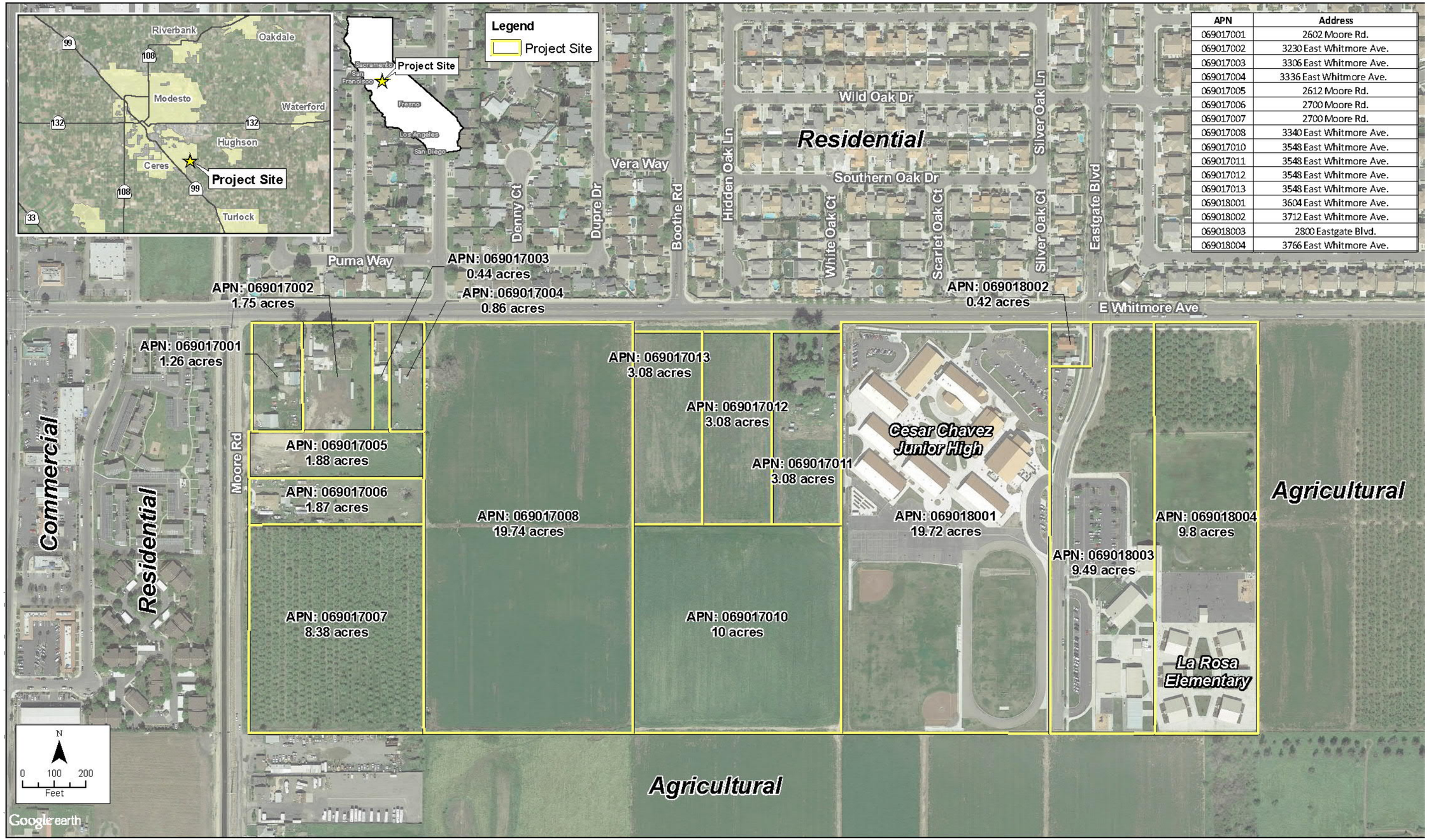
- contacted pertinent local regulatory agencies for information about subject property usage and history; and

- evaluated the information collected and prepared this document, summarizing findings, opinions, and conclusions.

The City representatives notified property owners of AECOM's site reconnaissance on September 21, 2016. Because property owner contact information was not furnished to AECOM, interviews with current property owners regarding the subject property usage and history were conducted only with those available during AECOM's site reconnaissance. Only the property owner of parcel 069017003 was available and interviewed. Interviews with the remaining property owners were not conducted during this Phase I ESA, and therefore this represents a significant data gap.

AECOM's scope of work did not include the following: (1) sampling or analysis of environmental media; (2) assessment of seismic hazards, environmental compliance, indoor air quality, or structural/mechanical building conditions; or (3) other activities not expressly described in the written scope of services dated April 12, 2016.

This document was prepared for the exclusive use of the City. No other party is entitled to rely on the conclusions, observations, specifications, or data contained herein without first obtaining AECOM's written consent. A third party's signing of the AECOM Reliance Letter and AECOM's written consent are conditions precedent to any additional use or reliance on this report.



APN	Address
069017001	2602 Moore Rd.
069017002	3230 East Whitmore Ave.
069017003	3306 East Whitmore Ave.
069017004	3336 East Whitmore Ave.
069017005	2612 Moore Rd.
069017006	2700 Moore Rd.
069017007	2700 Moore Rd.
069017008	3340 East Whitmore Ave.
069017010	3548 East Whitmore Ave.
069017011	3548 East Whitmore Ave.
069017012	3548 East Whitmore Ave.
069017013	3548 East Whitmore Ave.
069018001	3604 East Whitmore Ave.
069018002	3712 East Whitmore Ave.
069018003	2800 Eastgate Blvd.
069018004	3766 East Whitmore Ave.

Exhibit 1. Site Location Map

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1.3 TIME

The passage of time may result in changes in technology, economic conditions, site variations, or regulatory provisions that will render the information in this document inaccurate. Reliance on this document after the date of issuance as an accurate representation of existing site conditions will be at the user's sole risk.

1.4 DATA GAPS

The following data gaps were encountered during the course of this assessment:

- Based on its past and current agricultural use and review of previous reports prepared for portions of the subject property, the likely presence of organochloride pesticides and other agrochemicals in site soil exists. Pesticides may have been stored in the current and former shop buildings. Mixing of pesticides may have occurred near the irrigation wells. Termiticides may have been used near wood-frame structures. Lead-based paint may have been used on the current and former structures. This constitutes a significant data gap for the subject property.

- Potentially hazardous materials or waste (i.e., stored in steel or plastic drums) were observed on two of the accessible parcels. This constitutes a significant data gap for the subject property.

- A completed AAI Questionnaire was not received at the time of this document's submittal and is considered a data gap.

- Several properties were inaccessible at the time of AECOM's site visit on September 21, 2016. Those properties are listed in Chapter 3, "Site Reconnaissance," and are shown in Exhibit 2.

- Property owner contact information was not provided to AECOM, and therefore interviews with previous or current property owners were not conducted during this Phase I ESA, except those who were available during AECOM's site reconnaissance.

- One underground irrigation line bisecting parcel 069018001 was reported by Rincon in 2008 (Rincon 2008). The underground irrigation line could extend beneath the remaining parcels on the subject property. Because evidence of the irrigation line was not observed on the accessible parcels during AECOM's site reconnaissance, the potential presence of this irrigation line constitutes a data gap.

AECOM's inability to interview property owners or inspect certain properties could affect the conclusions in this document.

1.5 LIMITATIONS

This report describes the results of AECOM's due diligence assessment to identify the presence of environmental liabilities materially affecting the site. In conducting this due diligence evaluation, AECOM staff assessed the presence of such potential issues within the limits of the established scope of work.

In the conduct of this due diligence investigation, AECOM has attempted to independently assess the presence of any environmental liabilities affecting the subject site, within the limits of the established scope of work. As with

any due diligence evaluation, a certain degree of dependence exists on oral information provided by site representatives, which is not readily verifiable through visual observations or supported by any available written documentation. AECOM is not responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed by site representatives at the time this ESA was performed. In addition, the findings in this document are subject to certain conditions and assumptions, as noted. Any party reviewing the findings must review carefully and consider all such conditions and assumptions.

This document and all field data and notes were gathered and/or prepared in accordance with the agreed on scope of work and generally accepted engineering and scientific practices in effect at the time of AECOM's assessment of the subject site. The statements, conclusions, and opinions contained in this report are intended to give only approximations of the environmental conditions on-site.

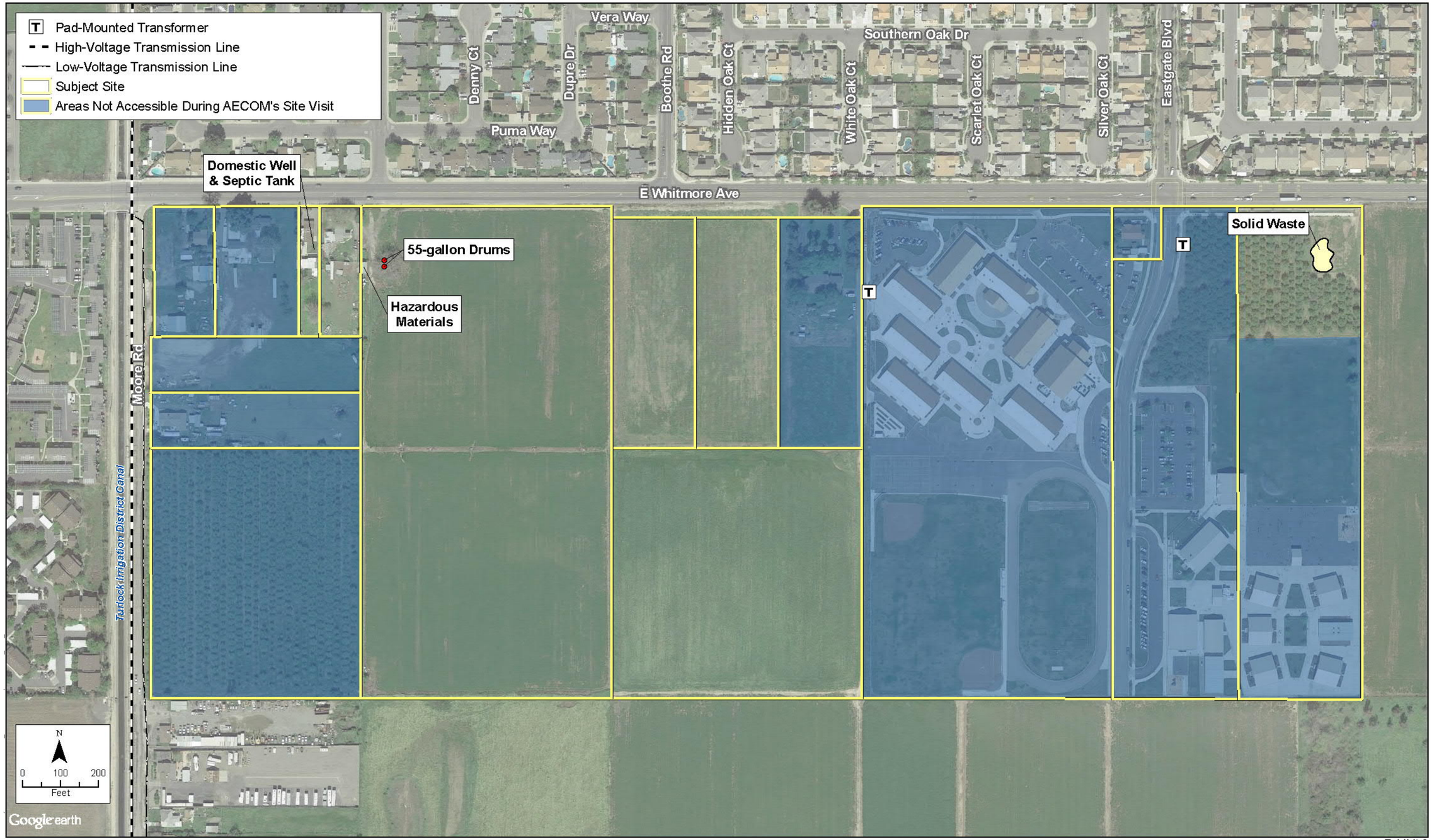

Exhibit 2. Site Overview

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2 SITE BACKGROUND

The subject property is located approximately 1.5 mile east of Highway 99 in an unincorporated portion Ceres, Stanislaus County, California. The subject property is bordered by East Whitmore Avenue to the north, Moore Road to the west, and private property to the east and south. Latitude and longitude coordinates for the subject property are 37.5934670N and 120.9317930W, respectively. Exhibit 1 shows the general location of the subject property.

2.1 SUBJECT SITE DESCRIPTION

According to the Stanislaus County Assessor's Office, the land use at the subject property is miscellaneous mixed industrial with residential. The rectangular-shaped subject site consists of 17 parcels totaling approximately 93 acres. Table 1 summarizes the parcel size, ownership, and property type per parcel. A copy of parcel information for each of the parcels on the subject site is provided in Appendix A.

Table 1. Parcel Information

Parcel Number	Address	Acreage (acres)	Property Type	Owner(s)
069017001	2602 Moore Road	1.26	Residential	Fred Gowan, Carolyn Gowan, Carolyn Hinkelman, Edward Hickelman
069017002	3230 East Whitmore Ave	1.76	Residential	Dharminder Verma, Ashok Verma, Jatinder Verma, Seema Verma
069017003	3306 East Whitmore Ave	0.39	Residential	Emmitt and Ruth Campbell
069017004	3336 East Whitmore Ave	0.85	Residential	Sharon Casey
069017005	2612 Moore Road	1.88	Residential	Sukhchain Singh Gill and Paramjit Grewal
069017006	2700 Moore Road	1.91	Residential	Frances and Salvador Corona
069017007	2700 Moore Road	8.38	Residential	James and Josephine Anderson
069017008	3340 East Whitmore Ave	19.70	Residential	Alvernaz Enterprises, LLC and Two Forty Nine, Inc.
069017010	3548 East Whitmore Ave	10.00	Residential	Samuel Gaede, Fred Gowan, and Ella Gaede
069017011	3548 East Whitmore Ave	2.80	Residential	Bulmaro Chavez Gutierrez and Carolina Tejeda
069017012	3548 East Whitmore Ave	3.08	Residential	Vernon F & Doris M Mays 1994 Trust
069017013	3548 East Whitmore Ave	3.08	Residential	Vernon F & Doris M Mays 1994 Trust
069018001	3604 East Whitmore Ave	19.70	School-Cesar Chavez Junior High School	Ceres Unified School District
069018002	3712 East Whitmore Ave	0.42	Residential	Unknown
069018003	2800 Eastgate Blvd	9.43	School-La Rosa Elementary	Ceres Unified School District
069018004	3766 East Whitmore Ave	9.8	School-La Rosa Elementary	Ceres Unified School District
Source: compiled by AECOM in 2016				

AECOM performed a visual inspection of the subject site on September 21, 2016. Exhibit 1 shows the subject property's general layout and adjacent properties uses. Additional specific information regarding the subject site's use is presented in Chapter 3, "Site Reconnaissance." Site photographs are provided in Appendix B.

2.2 ADJACENT PROPERTIES USAGE

The subject site is bordered to the north by East Whitmore Avenue and residential properties; to the east by agricultural land; to the west by Moore Road, the Turlock Irrigation District Canal, and Casa Grande Village apartment complex; and to the south by fallow farm land.

2.3 PHYSICAL SETTING

2.3.1 TOPOGRAPHY

As determined by a review of the 2012 U.S. Geological Survey 7.5-minute series topographic map (Ceres, California Quadrangle), the site elevation is approximately 97 feet mean sea level. The topographic elevations decrease gently toward the southwest. The surface topography is relatively flat.

2.3.2 GEOLOGY AND SOILS

The subject property is located in the San Joaquin Valley, within the Great Valley Geomorphic Province. The Great Valley is an elongated, northwest-trending structural trough, formed by the collision of the Pacific and North American plates, bounded by the Cascade Ranges to the north, the Sierra Nevada to the east, the Coast Ranges to the west, and the Transverse Ranges to the south. The Great Valley is approximately 400 miles long and 50 miles wide, and is divided into the northern Sacramento Valley and the southern San Joaquin Valley.

According to the Geologic Map of California, the Great Valley is backfilled with marine sediments overlain by Quaternary-age alluvial sediments originating from the Sierra Nevada and Coast ranges. The geology of the Great Valley is characterized as thick sequences of sedimentary materials of Jurassic through Holocene age (Harden 2004).

The Natural Resources Conservation Service (NRCS) soil survey shows that site soils are made up of Hanford sandy loam (NRCS 2015). NRCS defines this soil type as well drained with the capacity of the most limiting layer to transmit water as high (1.98 to 5.95 inches per year). The parent material is alluvium, derived from igneous rock, and the landform is alluvial fans. A typical profile for this soil type is sandy loam from 0 to 60 inches.

2.3.3 HYDROLOGY AND HYDROGEOLOGY

Surface water is controlled through irrigation canals, maintained by the Turlock Irrigation District. The closest irrigation canals are approximately 30 feet west and 40 feet north of the subject property.

According to the California Department of Water Resources, the subject site is within the Turlock Groundwater Basin, a water supply source for domestic, agricultural, and public water uses (DWR 2003).

According to a Phase I ESA conducted on parcel 069018001 in 2008, regional depth-to-groundwater is reported at 36 to 38 feet below ground surface (bgs), and the flow direction is to the north (Rincon 2008). However, AECOM

has not verified this information. Site-specific hydrogeological data was not readily available. In the absence of site-specific groundwater data, groundwater is anticipated to follow the topography and flow west-southwest.

2.3.4 WELLS

The EDR Radius Map Report (provided in Appendix C) does not identify any wells on the subject property. Twelve supply or domestic wells within 1 mile of the subject property have been identified. None of these wells appear to be related to the subject property.

One oil and gas well, located approximately 0.75 mile north of the subject property, was identified in the EDR Radius Map Report. The well was abandoned on January 6, 1971.

One domestic well was observed on parcel 069017003 during AECOM's site reconnaissance. Because of the rural setting of the subject property, the presence of domestic wells on remaining parcels is likely.

2.3.5 FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD ZONE INFORMATION

According to the Federal Emergency Management Agency flood risk information shown in the EDR Radius Map Report (Appendix C), the subject site is not located within a 100-year flood zone.

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3 SITE RECONNAISSANCE

City representative Tom Westbrook notified property owners of AECOM's site reconnaissance on Wednesday, September 21, 2016. AECOM project geologist Chani Hutto conducted the site reconnaissance. Weather conditions were moderately to heavily overcast, and the temperature was approximately 65 degrees Fahrenheit. Site photographs taken during the reconnaissance are provided in Appendix B.

Several properties were inaccessible at the time of the site reconnaissance because permission to enter them was not granted or the property occupants were unavailable. Thus, observations of these properties could be conducted only from public rights-of way or adjacent properties. Exhibit 2 shows the areas that were inaccessible.

3.1 SITE USE

At the time of the site reconnaissance, the subject property parcels 069017001 through 069017013 are used as residential, orchard, or fallow farmland for row crops. Parcels 069018001 through 069018004, excluding 069018002, are used as school sites. Parcel 069018002 was a residence. Table 1 lists the current uses within the subject property.

Chapter 4, "Historical Records Review," discusses the historical uses of the subject property.

3.2 UNDERGROUND AND ABOVEGROUND STORAGE TANKS

No evidence of USTs or aboveground storage tanks (ASTs) was observed on the accessible portions of the subject property.

3.3 ODORS

No unusual odors were noted on the subject property.

3.4 POOLS OF LIQUID

No pools of liquid were noted on the subject property.

3.5 HAZARDOUS MATERIALS AND HAZARDOUS WASTE

Two 55-gallon plastic drums were observed near the eastern boundary of parcel 069017008. The drums appeared full or nearly full of an unknown liquid. The drums were unlabeled, appeared to be structurally competent, and were stored on open, dry grass. The ground surface beneath the drums was not visible.

One approximately 600-square foot, corrugated metal building was observed on parcel 069017004. Several unlabeled 55-gallon steel drums, surplus electronics, a vacuum cleaner, tires, and other solid waste were observed in the building. The drums were moderately stained and based on the oily staining; at least three of the drums were likely used to store petroleum products. The ground surface was not visible because of the amount of trash that was present around the drums.

Approximately 33 waste tires were observed along the western property boundary of parcel 069017004. The tires were stored in the open and on open ground.

3.6 SOLID (NON-HAZARDOUS) WASTE

Solid waste was observed on the following parcels

- Parcel 069017003–cardboard, furniture, and miscellaneous materials
- Parcel 069017011–metal construction materials
- Parcel 069018004–assorted plastic containers and wood debris

Solid waste consisting of household trash likely is generated from the remaining parcels on the subject property.

3.7 POLYCHLORINATED BIPHENYL-CONTAINING EQUIPMENT

One pad-mounted transformer was observed along the western property boundary on parcel 069018001 and another on parcel 069018004. Neither transformer was labeled, indicating potential polychlorinated biphenyl content. Pacific Gas and Electric Company owns both transformers, and thus is responsible for their maintenance and repairs.

3.8 HEATING AND COOLING

No evidence of heating oil tanks was observed on the subject property. Each residence or school building likely is heated and cooled by an electric or natural gas heating, venting, and air conditioning (HVAC) unit. One roof-mounted HVAC unit was observed at the residence on parcel 069017003.

3.9 STAINING OR CORROSION

No staining or corrosion was observed on the site.

3.10 WATER AND WASTEWATER/STORMWATER

Based on an observed domestic well and evidence of a septic system on parcel 069017003, most of the subject property is not connected to any municipal water or wastewater facilities. Each subject property parcel (except those occupied by the Cesar Chavez Junior High School and La Rosa Elementary School) uses its own respective water supply well and sanitary sewer or septic system. Storm water naturally infiltrates the open ground on most of the subject property. On the covered surfaces at the Cesar Chavez Junior High School and La Rosa Elementary School, stormwater likely is managed by drainage ditches and discharge drains. These properties were inaccessible at the time of AECOM's site reconnaissance, and thus no municipal stormwater conveyances were observed during the site reconnaissance.

An irrigation canal, maintained by the Turlock Irrigation District, was observed west of the subject property. One underground irrigation line bisecting parcel 069018001 was reported by Rincon in 2008 (Rincon 2008). The underground irrigation line could extend beneath the remaining parcels on the subject property. Because evidence of the irrigation line was not observed on the accessible parcels during AECOM's site reconnaissance, the potential presence of this irrigation line constitutes a data gap.

3.11 UTILITIES

The utility providers for the subject site are as follows:

- Electrical service: Turlock Irrigation District
- Solid waste: Berdaloti Disposal Services
- Natural gas: No evidence of natural gas service was observed.
- Sewer: septic tanks
- Drinking water: domestic wells. The Cesar Chavez Junior High School and La Rosa Elementary School likely are connected to the municipal water system, as supported by fire hydrants observed on the Cesar Chavez school grounds.

Utility poles supporting overhead high-voltage electrical transmission and communication lines were observed on the west side of Moore Road and on the north side of East Whitmore Avenue, with service drops to the subject site at several locations. No transformers were observed on the subject property parcels related to these service drops.

One placard indicating the presence of an underground natural gas pipeline was observed on the south shoulder of East Whitmore Avenue. The pipeline, owned by Pacific Gas and Electric Company, is a 6-inch-diameter steel transmission line with pressure up to 260 pounds per square inch and runs beneath the center of East Whitmore Avenue (Rincon 2008).

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4 HISTORICAL RECORDS REVIEW

AECOM reviewed the following sources to develop a history of the previous uses of the subject site and adjacent properties.

- Aerial photographs, dated: 1937, 1950, 1957, 1967, 1974, 1984, 1987, 1998, 2005, 2006, 2009, 2010, and 2012 (EDR 2016a)
- Topographic maps (EDR 2016d) dated:
    - 1916, (Ceres, 7.5-minute series)
    - 1939 (Elkhorn Weir, 15-minute series)
    - 1953 (Ceres, 7.5-minute series)
    - 1969 (Ceres, 7.5-minute series)
    - 1976 (Ceres, 7.5 minute series)
    - 1987 (Ceres, 7.5 minute series)
    - 2012 (Ceres, 7.5 minutes series)
- The City Directory Abstract (EDR 2016b), showing coverage in approximately 5-year intervals between 1965 and 2013
- Certified Sanborn® Map Report (EDR 2016c), showing no coverage for the subject site

Historical research indicates that the subject site and adjacent properties have been used to grow various agricultural crops or orchards since the 1930s or earlier. Based on its past and current agricultural use, the potential for organochloride pesticides and other agrochemicals in site soil exists.

A summary of the specific historical uses observed in aerial photographs and topographic maps of the subject site and adjacent properties is shown in Table 2. Some topographic maps and aerial photographs have been omitted because they provided duplicate information. Copies of the historical documents from EDR are provided in Appendix D. Previously prepared environmental reports for the subject site are discussed in Chapter 5, "Previous Environmental Reports."

4.1 PROPERTY OWNER INTERVIEWS

Contact information for previous or current property owners was not provided to AECOM. Therefore, interviews were conducted only with property owners available during AECOM's site reconnaissance.

AECOM interviewed Mr. Emmitt Campbell, owner of parcel 069017003, at the time of the site reconnaissance. Mr. Campbell has owned the property since 1975. He was not aware of an environmental impairment in connection with his property (Campbell 2016).

No other property owners were available at the time of AECOM's site reconnaissance.

Table 2. Historical Use of the Subject Site and Surrounding Properties

Date	Type of Document	Description	Level of Concern
1916	Topographic Map (Ceres)	Subject site—Undeveloped. Two small structures are shown along the northern boundary and along present-day Eastgate Boulevard.	Low
		Surrounding properties—Undeveloped. Adjacent properties appear to be undeveloped with scattered houses. The downtown area of Ceres is situated to the northeast and west-southwest of the "State Highway" and Southern Pacific Railroad. An irrigation canal is apparent north and immediately west of the subject site.	Low
1937 1939	Aerial Photograph	Subject site—Farmland. Parcels 069017001,069017002, 069017004 through 069017006, 069017010, 069018001, and 069018004 appear to be used or partially used for orchards. Remaining parcels appear to be used for growing row crops.	Low
	Topographic Map	Surrounding properties—Farmland.	Low
1950	Aerial Photograph	Subject property—No significant changes are apparent.	Low
1953	Topographic Map	Adjacent properties—No significant changes are apparent.	Low
1967	Aerial Photograph	Subject site—No significant changes are apparent.	Low
1969	Topographic Map	Adjacent properties—No significant changes are apparent except for development west-northwest of the subject site.	Low
1974	Aerial Photograph	Subject site—The image is of poor quality and specific features are not visible. Eastgate Boulevard is apparent.	Low
1976	Topographic Map	Adjacent properties—No significant changes are apparent except for additional development west-northwest of the subject site.	Low
1984–2005	Aerial Photographs	Subject site—No significant changes are apparent.	Low
1987	Topographic Map	Adjacent properties—No significant changes are apparent. Residential development north of the site is apparent in the 2005 aerial photograph.	Low
2006–2012	Aerial Photographs	Subject site—Parcel 069018004 is redeveloped for the La Rosa Elementary School and Eastgate Boulevard in the 2006 aerial photograph. No other changes are apparent.	Low
		Adjacent properties—No significant changes are apparent.	Low
		Continued residential development north of the subject site is apparent in the 2006 aerial photograph.	

Source: compiled by AECOM in 2016

5 PREVIOUS ENVIRONMENTAL REPORTS

The following document was provided to AECOM during this Phase 1 ESA: Rincon Consultants, Inc., Phase I Environmental Site Assessment, 3604 E Whitmore Avenue, California, Ceres Unified School District, dated December 24, 2008. This report was prepared for the Ceres Unified School District to evaluate potential environmental concerns of parcel 069018001 that, at the time, was the proposed site of Cesar Chavez Junior High School. The 2008 Phase I ESA report only covered parcel 069018001 and not the remaining site parcels in AECOM's Phase I ESA.

The site of Rincon's Phase I ESA, owned by Mr. Nathan LaRosa, had been used as almond and walnut orchards for at least 60 years. The property was occupied by the owner at the time of Rincon's site reconnaissance.

Rincon's findings were as follows:

- One elevated AST containing diesel (reportedly empty) and one drum of used motor oil were observed during Rincon's site reconnaissance.
- The site was not identified in the EDR Radius Map Report. Several sites within 0.25 mile of the site were reported by EDR; however, Rincon determined that these sites did not pose an environmental concern to the site at the time of its Phase I ESA.
- Hydrological information obtained from the State Water Resources Control Board GeoTracker website indicated that depth-to-groundwater was approximately 36 to 38 feet bgs and groundwater flow direction was towards the north.

Rincon identified the following RECs in connection with the site:

- The current and former use of portions of the site as an orchard or other agricultural crops for at least 60 years,
- The presence of a diesel AST,
- Potential soil impacts from termiticides and lead-based paint near on-site structures, and
- Potential soil impacts from electrical transformers.

To evaluate the soil conditions associated with the potential RECs listed above, Rincon recommended the following (Rincon 2008):

- Current and former use of portions of the subject property as an orchard or other agricultural crops for over 60 years—Collect shallow soil samples from the subject property and analyze these samples for pesticides and metals.
- *Presence of a diesel AST*—Collect shallow soil samples from beneath the elevated AST. The samples collected from this area should be analyzed for total petroleum hydrocarbons (TPH)-gasoline, TPH-diesel, VOCs, and lead.

Because the site was the potential future site of a school, the California Department of Toxic Substances Control (DTSC), School Property Evaluation and Cleanup Division required additional environmental evaluation before construction could begin. See Section 6.3, "Regulatory Agency Records," for additional information.

6 ENVIRONMENTAL RECORDS RESEARCH

6.1 FEDERAL AND STATE AGENCY RECORDS

EDR was contracted to provide regulatory information for the subject site and adjacent properties, using a distance-based database search (EDR 2016e). The EDR Radius Map Report is provided in Appendix C. The results of the EDR database search are summarized next. A list of the databases searched by EDR and their respective search distances are provided in the EDR Radius Map Report.

6.1.1 SUBJECT SITE

The subject property is listed in the Historical Auto Stations database, as follows:

- Olivias Auto Body & Repair Parcel 069017001 (2602 Moore Road) for 2000 through 2005: No additional information was provided in the EDR Radius Map Report.
- Wm M Radford, Inc. Parcel 069017007 (3012 Moore Road): This parcel maintained one 300-gallon UST. According to the State Water Resources Control Board's Hazardous Substance Storage Container Information for Stanislaus County data June 1, 1988, the UST is used to store paint thinner (Appendix E). No additional information was provided in the EDR Radius Map Report.

On October 7, 2016, AECOM searched the State Water Resources Control Board's GeoTracker and DTSC's EnviroStor databases for records available for the subject property. The subject site is not identified in GeoTracker but is listed in EnviroStor for approval of Preliminary Environmental Assessments (PEAs) for the La Rosa Elementary School and the Cesar Chavez Junior High School. Section 6.3, "Regulatory Agency Records," provides additional information regarding the PEAs.

6.1.2 SURROUNDING PROPERTIES

Surrounding sites were evaluated for potential risks in connection with the subject property by using the following criteria: relative distance and hydrogeological position (i.e., upgradient) to the subject property; whether the sites are known environmental release sites, and current regulatory status.

Although several USTs were reported within 0.25 mile of the subject property, they are not anticipated to pose any negative effects on the subject property. Three release sites were identified, but all were listed as achieving regulatory case closure status, and thus are not expected to pose any negative environmental concerns for the subject property.

6.1.3 ORPHAN SITES

Eight orphan sites were listed in the EDR Radius Map Report. None of the orphan sites was observed during the site reconnaissance, and therefore they likely are located at a distance that would not pose an environmental concern for the subject property.

6.1.4 VAPOR ENCROACHMENT

The ASTM 1527-13 standard states that "for the purposes of this practice, 'migrate' and 'migration' refers to the movement of hazardous substances or petroleum products in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface." Thus, this section assesses potential environmental risk of vapor migration by identifying off-site properties within 30 feet and 100 feet of the subject property that have documented volatile petroleum hydrocarbon contamination or chlorinated volatile organic compound contamination, respectively.

Sites listed in the EDR Radius Map Report were evaluated for potential vapor encroachment issues, using tools that follow the ASTM E2600-10, Tier 1 Screening guidance. Because leaking UST sites, identified in Section 4.1, "Property Owner Interviews," received regulatory case closure, no supporting evidence exists of potential vapor encroachment. Therefore, vapor encroachment is not expected to pose a significant environmental risk for the subject property.

6.1.5 U.S. ENVIRONMENTAL PROTECTION AGENCY RECORDS

On October 7, 2016, AECOM searched the U.S. Environmental Protection Agency's (USEPA) Enforcement and Compliance History Online (ECHO) (USEPA 2016a) and the Envirofacts Data Warehouse (Envirofacts) (USEPA 2016b) using the subject property addresses. The ECHO database consists of USEPA compliance history at various sites. Envirofacts is an assemblage of USEPA databases, including the Comprehensive Environmental Response, Compensation, and Liability Act (commonly known as Superfund) Information System database, which includes National Priorities List sites being assessed under the Superfund program, hazardous waste sites, and potential hazardous waste sites. None of the addresses was identified in the Envirofacts database.

6.2 PROPERTY DISCLOSURE LAW

California does not have property disclosure laws, but rather follows the Superfund program, which places the burden on the property owner to perform due diligence on a property, before purchase. No disclosure documents were provided to AECOM for review.

6.3 REGULATORY AGENCY RECORDS

AECOM contacted appropriate regulatory agencies to conduct file reviews or interviews for information regarding environmental permits, USTs, environmental violations or incidents, and/or the status of enforcement actions on the subject property, using the parcel numbers. A listing of the various public agencies contacted and a summary of the relevant findings are provided next.

Stanislaus County Environmental Health Department (SCEHD): A Certified Unified Program Agencies' Farm Inventory Certification Form for parcel 069018001 (3604 E Whitmore Ave) for 2008 and 2009 indicates the presence of a 300-gallon diesel AST (see Chapter 5, "Previous Environmental Reports," for more information). Records pertaining to domestic septic tanks were found for the subject property parcels (Appendix F). No other information was found in the SCEHD records search.

No information was found at the Stanislaus County Building Department or Stanislaus County Planning Department.

Stanislaus County Fire Department (SCFD): SCFD had not responded to AECOM's public records request at the time of this document's submittal.

State Water Resources Control Board: AECOM accessed the online GeoTracker database to review any records pertaining to the subject property. No records were found (California State Water Resources Control Board, 2016).

Department of Toxic Substances Control: AECOM accessed EnviroStor to ascertain information regarding the Cesar Chavez Junior High School and La Rosa Elementary School PEAs (Department of Toxic Substances Control, 2016)..

AECOM reviewed the final PEA for the Proposed Whitmore Junior High School (presently Cesar Chavez Junior High), completed by Rincon on April 9, 2009 (Rincon 2009). The purpose of the PEA was to address potential contamination from RECs identified during Rincon's 2008 Phase I ESA (Rincon 2008) and in areas requested by DTSC that would pose a risk to human health or the environment. Rincon's Phase I ESA, including RECs, is discussed in Chapter 5, "Previous Environmental Reports." Because DTSC approved the PEA, a lengthy discussion of Rincon's findings is not warranted. However, a brief discussion is provided for completeness. Table 3 summarizes the PEA sampling regime.

Table 3. Cesar Chavez PEA 2009 Sampling Regime

Sample Location	Number of Samples	Sample Depth (feet bgs)	Sample Analyses
Orchards	30	Surface	Organochloride pesticides (USEPA Method 8081A), arsenic (USEPA Method 6010B)
		0.5	Organochloride pesticides (USEPA Method 8082)
Diesel Aboveground Storage Tank	2	0.5, 2, 5, and 10	TPH (USEPA Method 8015M), BTEX (USEPA Method 8260B)
			Naphthalene (USEPA Method 8260B)
Pole-Mounted Transformer	3	0.5, 2	PCBs (USEPA Method 8082)
Adjacent to Structures	13	0.5, 2	Organochloride pesticides (USEPA Method 8082)
			Lead (USEPA Method 6010B)

Notes:
Sample counts exclude background and quality control samples.
Groundwater samples were not collected.
BTEX = benzene, toluene, ethylbenzene, xylenes
PCBs = polychlorinated biphenyls
TPH = total petroleum hydrocarbons
USEPA = U.S. Environmental Protection Agency
Source: Rincon 2009

A comprehensive discussion of the sample results are excluded from this document. However, Rincon compared the sample results to the DTSC's California Human Health Screening Levels (CHHSLs) and conducted a subsequent risk analysis for any exceedance. Based on the sample and risk assessment results, Rincon concluded the following:

- Except for one chlordane sample, all pesticides were less than their respective CHHSLs. Chlordane was detected above the CHHSL of 0.43 milligrams per kilograms in one surface sample, but the risk analysis demonstrated that it did not pose a threat to human health or the environment.

- Arsenic concentrations generally were within background concentrations, except for three samples. A subsequent risk assessment evaluation using arsenic concentrations indicated that arsenic at the site did not appear to be a concern to human health or the environment.

- Lead, TPH, and PCBs concentrations did not warrant further action.

On April 13, 2009, DTSC agreed with Rincon's conclusions and approved the PEA for the Cesar Chavez Junior High School (Appendix G).

DTSC's EnviroStor website indicates that the La Rosa Elementary School on parcels 069018003 and 069018004 was used for growing row crops for over 65 years. Two residences and an almond orchard occupied the site before it became a school (DTSC 2016). Based on its historical use, the site was evaluated for residual contamination from pesticides and metals during a PEA. DTSC approved the PEA and granted no further action on September 12, 2003. The PEA was unavailable for AECOM to review.

6.4 TITLE RECORDS/ENVIRONMENTAL LIENS

An evaluation of title records or an environmental lien report was outside the scope of this Phase I ESA.

6.5 USER PROVIDED INFORMATION

No other information was provided by the user.

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7 CONCLUSIONS AND RECOMMENDATIONS

7.1 CONCLUSIONS AND RECOMMENDATIONS

AECOM has completed a Phase I ESA for the multi-parcel property on East Whitmore Avenue in Ceres, Stanislaus County, California, in accordance with the *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E 1527-13). Any exceptions to, or deletions from, this practice are described in Chapter 1, "Introduction," of this document. This document was prepared for the exclusive use of the City of Ceres.

Historical research indicates that the subject property and adjacent properties have been used to grow various crops or orchards since before the 1930s. Based on its past and current agricultural use and review of previous reports prepared for portions of the subject property, the likely presence of organochloride pesticides and other agrochemicals in site soil exists. Pesticides may have been stored in the current and former shop buildings. Mixing of pesticides may have occurred near the irrigation wells. Termiticides may have been used near wood-frame structures. Lead-based paint may have been used on the current and former structures. This constitutes a significant data gap for the subject property.

AECOM performed a visual inspection of the subject property on September 21, 2016. Several parcels were inaccessible at the time of the site visit. Inspection of those parcels was performed from adjacent properties or public rights-of-way. Hazardous materials or waste (i.e., stored in steel or plastic drums) were observed on two of the accessible parcels. This constitutes a significant data gap for the subject property. No other hazardous materials or waste was observed.

Contact information for previous or current property owners was not provided to AECOM; therefore, interviews with property owners or occupants were conducted only with those available during AECOM's site reconnaissance. Only the property owner of parcel 069017003 was available and interviewed. Interviews with the remaining property owners were not conducted during this Phase I ESA, and therefore represent a significant data gap.

This assessment did not reveal any RECs, CRECs, or HRECs in connection with the subject property, except for the following:

- *Suspected presence of one 300-gallon underground storage tank (UST) – According to information provided in the EDR report, parcel 069017007 maintained one 300-gallon UST used to store paint thinner. Whether the UST has been removed from property is unknown. The parcel was inaccessible at the time of AECOM's site reconnaissance; therefore, no additional information regarding the UST was obtained during this Phase I ESA. The reported presence of the UST represents a REC in connection with the subject property.*

Although not considered RECs, the following site features are considered items of concern:

- *Drums stored on unpaved surfaces* – Two 55-gallon plastic drums were observed near the eastern boundary of parcel 069017008. The drums were unlabeled, appeared to be structurally competent, and were stored on open dry grass. The contents of the drums are unknown. Also, several steel drums were

observed in a corrugated metal building on parcel 069017004. The ground surface beneath and surrounding the drums was not observed; thus, soil conditions in the immediate area of the drums could not be evaluated. The contents of the drums are unknown. The potential for soil impacts exists and this constitutes an item of concern for the subject property.

The contents of the drums should be sampled and analyzed. If it is determined that the contents is hazardous, then the drums and contents should be properly disposed of by a qualified professional. Additionally, if the contents of the drums are confirmed to be hazardous, soil in the immediate vicinity of the drums should be sampled and analyzed by a qualified professional for potential impacts.

- *Existing domestic wells* – One domestic well on parcel 069017003 was observed during AECOM's site reconnaissance. Because of the rural setting of the subject property, the presence of additional domestic wells is likely. Depending on the planned use of the subject property, the water supply wells represent a direct conduit to groundwater and should be properly destroyed if they are no longer in use or needed.

- *Existing septic tanks* – According to records maintained at the Stanislaus County Environmental Health Department, subject property parcels maintains multiple septic tanks. Evidence of one septic tank was observed on parcel 069017003 and this was confirmed by the property owner during AECOM's site visit. Depending on the planned use of the subject property, all septic tanks and leach lines should be properly removed and disposed if they are no longer needed.

7.2 ENVIRONMENTAL PROFESSIONAL STATEMENT

I declare that, to the best of my professional knowledge and belief, I meet the definition of an Environmental Professional as defined in Title 40, Part 312.10 of the CFR. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject site. Resumes are provided in Appendix H.

Signature: Chani M Hutto

Chani Hutto, GIT

The undersigned has developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Signature:

PROFESSIONAL GEOLOGIST
FRANK GEGUNDE
No. 7998
Exp. 6/30/17
STATE OF CALIFORNIA

Frank Gegunde, PG
Senior Reviewer

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APPENDIX E

Noise

Long-Term 24 Hour Continuous Noise Monitoring
Model Input Sheet

Project: 60492374 - Whitmore Ranch SP&EIR

Date: Existi **Monday, September 12, 2016** **Tuesday, September 13, 2016**

Site: Front Yard, 3548 East Whitmore AvenueCeres, CA 95307

Hour	Leq	Lmax	L50	L90
18:00	64.6	90.6	57.8	52.2
19:00	58.1	74.8	56.6	50.5
20:00	56.9	68.7	55.4	50.4
21:00	56.1	72.5	53.9	47.9
22:00	53.1	65.7	49.5	44.0
23:00	51.4	67.2	46.7	41.8
0:00	49.6	65.7	44.0	39.6
1:00	47.8	68.4	40.2	36.4
2:00	48.0	62.9	39.0	35.2
3:00	51.4	68.0	42.7	36.2
4:00	55.3	72.5	50.5	40.6
5:00	58.4	83.2	54.0	45.9
6:00	59.2	71.3	57.7	51.3
7:00	59.8	73.1	59.1	54.2
8:00	58.2	76.2	56.2	48.5
9:00	57.4	80.2	53.7	45.1
10:00	56.1	76.5	53.1	43.8
11:00	56.8	75.0	54.5	48.4
12:00	57.2	79.6	55.1	48.7
13:00	56.8	75.5	54.0	46.5
14:00	57.1	76.1	55.2	48.5
15:00	57.9	71.8	56.3	49.4
16:00	58.5	73.0	56.8	49.3
17:00	60.1	78.8	58.4	51.5

Averages

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 10 p.m.)	58.8	76.2	55.7	49.0
Nighttime (10 p.m. - 7 a.m.)	54.5	69.4	47.1	41.2

Uppermost-Level

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 10 p.m.)	64.6	90.6	59.1	54.2
Nighttime (10 p.m. - 7 a.m.)	59.2	83.2	57.7	51.3

Percentage of Energy

Daytime	82%
Nighttime	18%

Calculated L_{dn}, dBA

61.9

Long-Term 24 Hour Continuous Noise Monitoring
Model Input Sheet

Project: 60492374 - Whitmore Ranch SP&EIR

Date: Existi **Tuesday, September 13, 2016** **Wednesday, September 14, 2016**

Site: Front Yard, 3548 East Whitmore AvenueCeres, CA 95307

Hour	Leq	Lmax	L50	L90
18:00	59.0	73.6	57.8	51.1
19:00	59.3	74.0	57.7	51.6
20:00	58.1	69.7	56.8	49.7
21:00	57.5	76.1	54.1	46.3
22:00	54.7	75.8	49.6	40.4
23:00	51.3	67.8	45.7	41.0
0:00	50.4	69.9	43.8	40.8
1:00	48.4	67.6	42.1	40.1
2:00	50.4	70.6	40.8	38.6
3:00	50.5	67.6	44.0	40.2
4:00	54.4	67.7	49.3	42.4
5:00	56.5	74.7	53.7	47.3
6:00	61.4	72.3	58.3	51.2
7:00	59.0	72.6	57.8	53.1
8:00	59.4	74.0	58.4	54.0
9:00	57.7	77.9	54.9	47.9
10:00	57.3	78.8	54.0	46.2
11:00	58.5	80.0	54.2	46.9
12:00	58.6	84.3	53.8	47.9
13:00	56.8	79.1	54.2	47.1
14:00	62.1	73.3	58.8	53.6
15:00	58.6	73.5	57.6	52.4
16:00	58.8	72.1	57.7	51.7
17:00	60.4	78.2	59.1	53.3

Averages

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 10 p.m.)	58.9	75.8	56.5	50.2
Nighttime (10 p.m. - 7 a.m.)	55.1	70.4	47.5	42.4

Uppermost-Level

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 10 p.m.)	62.1	84.3	59.1	54.0
Nighttime (10 p.m. - 7 a.m.)	61.4	75.8	58.3	51.2

Percentage of Energy

Daytime	80%
Nighttime	20%

Calculated L_{dn}, dBA

62.3

Long-Term 24 Hour Continuous Noise Monitoring
Model Input Sheet

Project: 60492374 - Whitmore Ranch SP&EIR

Date: Existi **Monday, September 12, 2016** **Tuesday, September 13, 2016**

Site: Middle of Specific Plan Area, Agricultural Land, 3340 East Whitmore AvenueCeres, CA 95307

Hour	Leq	Lmax	L50	L90
19:00	55.3	65.8	54.8	51.6
20:00	55.7	68.2	55.2	52.0
21:00	55.6	66.9	55.0	51.0
22:00	52.6	62.2	51.7	48.1
23:00	49.5	61.8	48.1	44.4
0:00	49.5	73.3	45.7	42.2
1:00	45.2	56.5	42.9	39.9
2:00	45.8	64.4	42.7	40.1
3:00	47.3	59.2	45.2	40.5
4:00	49.4	66.7	47.8	42.7
5:00	53.0	75.4	50.6	47.3
6:00	55.3	70.5	53.8	50.2
7:00	54.6	70.4	53.5	50.7
8:00	48.3	65.0	47.4	43.0
9:00	48.0	73.2	44.0	41.9
10:00	45.2	59.1	44.6	42.3
11:00	47.3	58.2	46.3	44.4
12:00	49.1	65.0	47.6	45.6
13:00	48.4	63.2	47.1	45.1
14:00	48.1	61.1	47.0	45.1
15:00	49.0	70.4	46.6	44.5
16:00	46.8	60.0	45.4	43.2
17:00	49.4	65.4	46.6	43.1
18:00	49.9	63.0	48.3	44.4

Averages

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 10 p.m.)	51.5	65.0	48.6	45.9
Nighttime (10 p.m. - 7 a.m.)	50.9	65.6	47.6	43.9

Uppermost-Level

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 10 p.m.)	55.7	73.2	55.2	52.0
Nighttime (10 p.m. - 7 a.m.)	55.3	75.4	53.8	50.2

Percentage of Energy

Daytime	65%
Nighttime	35%

Calculated L_{dn}, dBA

57.4

Long-Term 24 Hour Continuous Noise Monitoring
Model Input Sheet

Project: 60492374 - Whitmore Ranch SP&EIR

Date: Existi **Tuesday, September 13, 2016** **Wednesday, September 14, 2016**

Site: Middle of Specific Plan Area, Agricultural Land, 3340 East Whitmore AvenueCeres, CA 95307

Hour	Leq	Lmax	L50	L90
19:00	53.1	64.6	52.3	48.0
20:00	54.8	71.5	53.8	49.9
21:00	54.9	77.5	52.5	48.4
22:00	51.0	72.1	48.0	43.8
23:00	48.3	62.9	47.2	44.1
0:00	47.3	58.4	45.7	43.1
1:00	46.1	58.7	44.6	42.3
2:00	45.5	60.8	43.4	41.1
3:00	47.3	59.6	45.7	42.4
4:00	49.6	60.3	48.6	44.7
5:00	52.2	70.4	51.2	48.1
6:00	55.3	77.0	54.2	51.4
7:00	55.0	61.9	54.6	52.5
8:00	56.2	73.2	55.4	52.8
9:00	52.1	64.8	50.8	47.1
10:00	50.1	66.5	48.1	45.2
11:00	48.7	62.5	46.9	44.0
12:00	48.3	66.7	47.0	44.1
13:00	48.9	63.6	47.2	43.9
14:00	50.4	66.0	49.0	46.2
15:00	51.0	66.5	49.8	46.7
16:00	53.0	66.4	52.2	48.6
17:00	54.9	73.1	53.8	50.0
18:00	55.6	77.6	53.6	50.8

Averages

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 10 p.m.)	53.2	68.2	51.1	47.9
Nighttime (10 p.m. - 7 a.m.)	50.3	64.5	47.6	44.6

Uppermost-Level

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 10 p.m.)	56.2	77.6	55.4	52.8
Nighttime (10 p.m. - 7 a.m.)	55.3	77.0	54.2	51.4

Percentage of Energy

Daytime	76%
Nighttime	24%

Calculated L_{dn}, dBA

57.3

Traffic Noise Prediction Model, (FHWA RD-77-108)

Model Input Sheet

Project Name : 60492374 - Whitmore Ranch SP&EIR
Project Number : 60492374
Modeling Condition : Existing
Ground Type : Soft
K Factor : NA
Metric (L_{eq}, L_{dn}, CNEL) : Ldn
Traffic Desc. (Peak or ADT) : ADT

Segment	Roadway	Segment From	Segment To	Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	Offset (dB)
1	Whitmore Avenue	Mitchell Rd	Della Dr	16432	40	50	97	2	1	82	0	18	
2	Whitmore Avenue	Della Dr	Moore Rd	16432	40	50	97	2	1	82	0	18	
3	Whitmore Avenue	Moore Rd	Boothe Rd	18320	40	50	97	2	1	82	0	18	
4	Whitmore Avenue	Boothe Rd	Eastgate Blvd	13600	30	50	97	2	1	65	0	35	
5	Whitmore Avenue	Eastgate	Faith Home Rd	6900	30	50	97	2	1	65	0	35	
6	Faith Home Road	Whitmore Ave	Roeding Rd	4100	30	50	97	2	1	65	0	35	
7	Eastgate Blvd	Whitmore Ave	South of Whitmore Ave	3402	30	50	97	2	1	65	0	35	
8	Moore Road	Whitmore Ave	Roeding Rd	3127	30	50	97	2	1	65	0	35	
9	Roeding Road	Moore Rd	Faith Home Rd	1814	30	50	97	2	1	65	0	35	

0

Traffic Noise Prediction Model, (FHWA RD-77-108)

Predicted Noise Levels

Project Name : 60492374 - Whitmore Ranch SP&EIR
Project Number : 60492374
Modeling Condition : Existing
Metric (Leq, Ldn, CNEL) : Ldn

		Segment		Noise Levels, dB Ldn				Distance to Traffic Noise Contours, Feet				
Segment	Roadway	From	To	Auto	MT	HT	Total	70 dB	65 dB	60 dB	55 dB	50 dB
1	Whitmore Avenue	Mitchell Rd	Della Dr	67.2	59.3	61.1	68.7	41	88	190	409	881
2	Whitmore Avenue	Della Dr	Moore Rd	67.2	59.3	61.1	68.7	41	88	190	409	881
3	Whitmore Avenue	Moore Rd	Boothe Rd	67.7	59.8	61.6	69.2	44	95	204	440	947
4	Whitmore Avenue	Boothe Rd	Eastgate Blvd	64.7	58.4	62.5	67.3	33	72	154	332	716
5	Whitmore Avenue	Eastgate	Faith Home Rd	61.7	55.5	59.6	64.4	21	46	98	211	455
6	Faith Home Road	Whitmore Ave	Roeding Rd	59.5	53.2	57.3	62.1	15	32	69	149	322
7	Eastgate Blvd	Whitmore Ave	South of Whitmore	58.7	52.4	56.5	61.3	13	28	61	132	284
8	Moore Road	Whitmore Ave	Roeding Rd	58.3	52.0	56.1	61.0	12	27	58	125	269
9	Roeding Road	Moore Rd	Faith Home Rd	55.9	49.7	53.8	58.6	9	19	40	87	187
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Traffic Noise Prediction Model, (FHWA RD-77-108)

Model Input Sheet

Project Name : 60492374 - Whitmore Ranch SP&EIR
Project Number : 60492374
Modeling Condition : Existing + Construction Traffic
Ground Type : Soft **K Factor :** NA
Metric (L_{eq}, L_{dn}, CNEL) : Ldn **Traffic Desc. (Peak or ADT) :** ADT

Segment	Roadway	Segment From	Segment To	Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	Offset (dB)
1	Whitmore Avenue	Mitchell Rd	Della Dr	16752	40	50	93	2	5	82	0	18	
2	Whitmore Avenue	Della Dr	Moore Rd	16752	40	50	93	2	5	82	0	18	
3	Whitmore Avenue	Moore Rd	Boothe Rd	18640	40	50	93	2	5	82	0	18	
4	Whitmore Avenue	Boothe Rd	Eastgate Blvd	13920	30	50	93	2	5	65	0	35	
5	Whitmore Avenue	Eastgate	Faith Home Rd	7220	30	50	93	2	5	65	0	35	
6	Faith Home Road	Whitmore Ave	Roeding Rd	4420	30	50	93	2	5	65	0	35	
7	Eastgate Blvd	Whitmore Ave	South of Whitmore Ave	3722	30	50	93	2	5	65	0	35	
8	Moore Road	Whitmore Ave	Roeding Rd	3447	30	50	93	2	5	65	0	35	
9	Roeding Road	Moore Rd	Faith Home Rd	2134	30	50	93	2	5	65	0	35	

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Traffic Noise Prediction Model, (FHWA RD-77-108)

Predicted Noise Levels

Project Name : 60492374 - Whitmore Ranch SP&EIR
Project Number : 60492374
Modeling Condition : Existing + Construction Traffic
Metric (Leq, Ldn, CNEL) : Ldn

		Segment		Noise Levels, dB Ldn				Distance to Traffic Noise Contours, Feet				
Segment	Roadway	From	To	Auto	MT	HT	Total	70 dB	65 dB	60 dB	55 dB	50 dB
1	Whitmore Avenue	Mitchell Rd	Della Dr	67.1	59.4	68.2	71.0	58	125	270	582	1254
2	Whitmore Avenue	Della Dr	Moore Rd	67.1	59.4	68.2	71.0	58	125	270	582	1254
3	Whitmore Avenue	Moore Rd	Boothe Rd	67.6	59.8	68.6	71.5	62	135	290	625	1347
4	Whitmore Avenue	Boothe Rd	Eastgate Blvd	64.6	58.5	69.6	71.0	59	126	273	587	1265
5	Whitmore Avenue	Eastgate	Faith Home Rd	61.8	55.7	66.8	68.2	38	82	176	379	817
6	Faith Home Road	Whitmore Ave	Roeding Rd	59.6	53.5	64.6	66.1	27	59	127	273	589
7	Eastgate Blvd	Whitmore Ave	South of Whitmore	58.9	52.8	63.9	65.3	24	52	113	244	525
8	Moore Road	Whitmore Ave	Roeding Rd	58.5	52.4	63.5	65.0	23	50	107	232	499
9	Roeding Road	Moore Rd	Faith Home Rd	56.5	50.4	61.5	62.9	17	36	78	168	362
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Traffic Noise Prediction Model, (FHWA RD-77-108)

Model Input Sheet

Project Name : 60492374 - Whitmore Ranch SP&EIR
Project Number : 60492374
Modeling Condition : Existing + Project Traffic
Ground Type : Soft
K Factor : NA
Metric (L_{eq}, L_{dn}, CNEL) : Ldn
Traffic Desc. (Peak or ADT) : ADT

Segment	Roadway	Segment From	Segment To	Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	Offset (dB)
1	Whitmore Avenue	Mitchell Rd	Della Dr	20983	40	50	97	2	1	82	0	18	
2	Whitmore Avenue	Della Dr	Moore Rd	20983	40	50	97	2	1	82	0	18	
3	Whitmore Avenue	Moore Rd	Boothe Rd	22322	40	50	97	2	1	82	0	18	
4	Whitmore Avenue	Boothe Rd	Eastgate Blvd	15740	30	50	97	2	1	65	0	35	
5	Whitmore Avenue	Eastgate	Faith Home Rd	8105	30	50	97	2	1	65	0	35	
6	Faith Home Road	Whitmore Ave	Roeding Rd	4590	30	50	97	2	1	65	0	35	
7	Eastgate Blvd	Whitmore Ave	South of Whitmore Ave	3750	30	50	97	2	1	65	0	35	
8	Moore Road	Whitmore Ave	Roeding Rd	4403	30	50	97	2	1	65	0	35	
9	Roeding Road	Moore Rd	Faith Home Rd	2051	30	50	97	2	1	65	0	35	

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Traffic Noise Prediction Model, (FHWA RD-77-108)

Predicted Noise Levels

Project Name : 60492374 - Whitmore Ranch SP&EIR
Project Number : 60492374
Modeling Condition : Existing + Project Traffic
Metric (Leq, Ldn, CNEL) : Ldn

		Segment		Noise Levels, dB Ldn				Distance to Traffic Noise Contours, Feet				
Segment	Roadway	From	To	Auto	MT	HT	Total	70 dB	65 dB	60 dB	55 dB	50 dB
1	Whitmore Avenue	Mitchell Rd	Della Dr	68.3	60.3	62.2	69.8	48	104	223	481	1037
2	Whitmore Avenue	Della Dr	Moore Rd	68.3	60.3	62.2	69.8	48	104	223	481	1037
3	Whitmore Avenue	Moore Rd	Boothe Rd	68.5	60.6	62.4	70.0	50	108	233	501	1080
4	Whitmore Avenue	Boothe Rd	Eastgate Blvd	65.3	59.0	63.1	68.0	37	79	170	366	789
5	Whitmore Avenue	Eastgate	Faith Home Rd	62.4	56.2	60.3	65.1	24	51	109	235	507
6	Faith Home Road	Whitmore Ave	Roeding Rd	60.0	53.7	57.8	62.6	16	35	75	161	347
7	Eastgate Blvd	Whitmore Ave	South of Whitmore	59.1	52.8	56.9	61.7	14	30	65	141	303
8	Moore Road	Whitmore Ave	Roeding Rd	59.8	53.5	57.6	62.4	16	34	73	157	337
9	Roeding Road	Moore Rd	Faith Home Rd	56.5	50.2	54.3	59.1	9	20	44	94	203
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Traffic Noise Prediction Model, (FHWA RD-77-108)

Model Input Sheet

Project Name : 60492374 - Whitmore Ranch SP&EIR
Project Number : 60492374
Modeling Condition : Existing + Project Traffic
Ground Type : Soft
K Factor : NA
Metric (L_{eq}, L_{dn}, CNEL) : Ldn
Traffic Desc. (Peak or ADT) : ADT

Segment	Roadway	Segment From	Segment To	Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	Offset (dB)
#REF!	Whitmore Avenue	Mitchell Rd	Della Dr	19925	40	50	97	2	1	82	0	18	
#REF!	Whitmore Avenue	Della Dr	Moore Rd	19925	40	50	97	2	1	82	0	18	
#REF!	Whitmore Avenue	Moore Rd	Boothe Rd	21075	40	50	97	2	1	82	0	18	
#REF!	Whitmore Avenue	Boothe Rd	Eastgate Blvd	14785	30	50	97	2	1	65	0	35	
#REF!	Whitmore Avenue	Eastgate	Faith Home Rd	7820	30	50	97	2	1	65	0	35	
#REF!	Faith Home Road	Whitmore Ave	Roeding Rd	4845	30	50	97	2	1	65	0	35	
#REF!	Eastgate Blvd	Whitmore Ave	South of Whitmore Ave	3410	30	50	97	2	1	65	0	35	
#REF!	Moore Road	Whitmore Ave	Roeding Rd	4090	30	50	97	2	1	65	0	35	
#REF!	Roeding Road	Moore Rd	Faith Home Rd	3065	30	50	97	2	1	65	0	35	

Traffic Noise Prediction Model, (FHWA RD-77-108)

Predicted Noise Levels

Project Name : 60492374 - Whitmore Ranch SP&EIR
Project Number : 60492374
Modeling Condition : Existing + Project Traffic
Metric (Leq, Ldn, CNEL) : Ldn

		Segment		Noise Levels, dB Ldn				Distance to Traffic Noise Contours, Feet				
Segment	Roadway	From	To	Auto	MT	HT	Total	70 dB	65 dB	60 dB	55 dB	50 dB
1	Whitmore Avenue	Mitchell Rd	Della Dr	68.0	60.1	61.9	69.5	46	100	216	465	1002
2	Whitmore Avenue	Della Dr	Moore Rd	68.0	60.1	61.9	69.5	46	100	216	465	1002
3	Whitmore Avenue	Moore Rd	Boothe Rd	68.3	60.4	62.2	69.8	48	104	224	483	1040
4	Whitmore Avenue	Boothe Rd	Eastgate Blvd	65.0	58.8	62.9	67.7	35	76	163	351	757
5	Whitmore Avenue	Eastgate	Faith Home Rd	62.3	56.0	60.1	64.9	23	49	107	230	495
6	Faith Home Road	Whitmore Ave	Roeding Rd	60.2	53.9	58.0	62.9	17	36	77	167	360
7	Eastgate Blvd	Whitmore Ave	South of Whitmore	58.7	52.4	56.5	61.3	13	28	61	132	285
8	Moore Road	Whitmore Ave	Roeding Rd	59.5	53.2	57.3	62.1	15	32	69	149	321
9	Roeding Road	Moore Rd	Faith Home Rd	58.2	51.9	56.0	60.9	12	27	57	123	265

Traffic Noise Prediction Model, (FHWA RD-77-108)

Model Input Sheet

Project Name : 60492374 - Whitmore Ranch SP&EIR
Project Number : 60492374
Modeling Condition : Cumulative No Project
Ground Type : Soft
K Factor : NA
Metric (L_{eq}, L_{dn}, CNEL) : Ldn
Traffic Desc. (Peak or ADT) : ADT

Segment	Roadway	Segment From	Segment To	Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	Offset (dB)
1	Whitmore Avenue	Mitchell Rd	Della Dr	21565	40	50	97	2	1	82	0	18	
2	Whitmore Avenue	Della Dr	Moore Rd	21565	40	50	97	2	1	82	0	18	
3	Whitmore Avenue	Moore Rd	Boothe Rd	21015	40	50	97	2	1	82	0	18	
4	Whitmore Avenue	Boothe Rd	Eastgate Blvd	19875	30	50	97	2	1	65	0	35	
5	Whitmore Avenue	Eastgate	Faith Home Rd	9370	30	50	97	2	1	65	0	35	
6	Faith Home Road	Whitmore Ave	Roeding Rd	27425	30	50	97	2	1	65	0	35	
7	Eastgate Blvd	Whitmore Ave	South of Whitmore Ave	4310	30	50	97	2	1	65	0	35	
8	Moore Road	Whitmore Ave	Roeding Rd	3430	30	50	97	2	1	65	0	35	
9	Roeding Road	Moore Rd	Faith Home Rd	8085	30	50	97	2	1	65	0	35	

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Traffic Noise Prediction Model, (FHWA RD-77-108)

Predicted Noise Levels

Project Name : 60492374 - Whitmore Ranch SP&EIR
Project Number : 60492374
Modeling Condition : Cumulative No Project
Metric (Leq, Ldn, CNEL) : Ldn

		Segment		Noise Levels, dB Ldn				Distance to Traffic Noise Contours, Feet				
Segment	Roadway	From	To	Auto	MT	HT	Total	70 dB	65 dB	60 dB	55 dB	50 dB
1	Whitmore Avenue	Mitchell Rd	Della Dr	68.4	60.5	62.3	69.9	49	106	227	490	1056
2	Whitmore Avenue	Della Dr	Moore Rd	68.4	60.5	62.3	69.9	49	106	227	490	1056
3	Whitmore Avenue	Moore Rd	Boothe Rd	68.3	60.3	62.2	69.8	48	104	224	482	1038
4	Whitmore Avenue	Boothe Rd	Eastgate Blvd	66.3	60.0	64.2	69.0	43	92	199	428	922
5	Whitmore Avenue	Eastgate	Faith Home Rd	63.1	56.8	60.9	65.7	26	56	120	259	558
6	Faith Home Road	Whitmore Ave	Roeding Rd	67.7	61.4	65.6	70.4	53	114	246	530	1142
7	Eastgate Blvd	Whitmore Ave	South of Whitmore	59.7	53.4	57.5	62.3	15	33	72	154	333
8	Moore Road	Whitmore Ave	Roeding Rd	58.7	52.4	56.5	61.4	13	29	62	133	286
9	Roeding Road	Moore Rd	Faith Home Rd	62.4	56.1	60.3	65.1	23	51	109	235	506
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APPENDIX F

StanCOG RTP SCS EIR Summary of Impacts and Mitigation Measures

EXECUTIVE SUMMARY

This section summarizes the characteristics of the proposed project, as well as the project's environmental impacts and recommended mitigation measures.

PROJECT SYNOPSIS

Project Lead Agency

The Stanislaus Council of Governments (StanCOG) is the Lead Agency for the 2014 Regional Transportation Plan / Sustainable Committee Strategy (RTP/SCS) (referred to as the RTP/SCS, Project, or Plan).

Project Description

The 2014 RTP/SCS is an update of the 2011 RTP, adopted by StanCOG in July 2010. This update reflects changes in legislative requirements, local land use policies, and resource constraints. For the first time, StanCOG now also has the responsibility to prepare an SCS as part of the RTP, pursuant to the requirements of California Senate Bill 375 as adopted in 2008. The SCS sets forth a forecasted development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, is intended to reduce greenhouse gas (GHG) emissions from passenger vehicles and light trucks to achieve the regional GHG reduction targets set by the California Air Resources Board (ARB). The RTP/SCS includes both the RTP and SCS for the Stanislaus County region.

In addition to creating requirements for Metropolitan Planning Organizations, SB 375 also created requirements for the California Transportation Commission and ARB. Some of the requirements include the following:

- The California Transportation Commission (CTC) must maintain guidelines for the travel demand models that MPOs develop for use in the preparation of their RTPs.
- The ARB must develop regional GHG emission reduction targets for automobiles and light trucks for 2020 and 2035 by September 30, 2010.
- Each MPO must prepare an SCS as part of its RTP to demonstrate how it will meet the regional GHG targets.
- Each MPO must adopt a public participation plan for development of the SCS that includes informational meetings, workshops, public hearings, consultation, and other outreach efforts.
- If an SCS cannot achieve the regional GHG target, the MPO must prepare an Alternative Planning Strategy (APS) showing how it would achieve the targets with alternative development patterns, infrastructure, or transportation measures and policies.

- Each MPO must prepare and circulate a draft SCS at least 55 days before it adopts a final RTP.

- After adoption, each MPO must submit its SCS to the ARB for review.

- ARB must review each SCS to determine whether or not, if implemented, it would meet the GHG targets. ARB must complete its review within 60 days.

ARB set targets for the StanCOG region as a 5% reduction from 2005 emissions levels by 2020 and a 10% reduction from 2005 emissions levels by 2035. These targets apply to the StanCOG region as a whole for all on-road light-duty trucks and passenger vehicles emissions, and not to apply to individual cities or sub-regions. In 2005, GHG emissions from passenger vehicles in the StanCOG region were approximately 15.9 pounds of carbon dioxide equivalent (CO_2e) per capita. Therefore, StanCOG, through the RTP/SCS, must reduce these levels to 15.1 pounds of CO_2e per capita in 2020 and 14.3 pounds of CO_2e per capita in 2035 in order to meet the established targets.

SB 375 specifically states that local governments retain their autonomy to adopt local General Plan policies and land uses. The 2014 RTP/SCS is intended to provide a regional policy foundation that local governments may build upon, if they so choose. The 2014 RTP/SCS includes and accommodates the quantitative growth projections for the region. SB 375 also requires that the RTP/SCS's forecasted development pattern for the region be consistent with the eight-year regional housing needs as allocated to member jurisdictions through the Regional Housing Needs Allocation (RHNA) process under State housing law.

In addition, this Program EIR lays the groundwork for the streamlined review of qualifying development projects within Transit Priority Areas.[1] Qualifying projects that meet statutory criteria and are consistent with the 2014 RTP/SCS are eligible for streamlined environmental review pursuant to CEQA.

The RTP must comply also with the state's planning regulations as defined in the 2010 California Regional Transportation Plan Guidelines by the California Transportation Commission (April 2010). The state's RTP Guidelines (page 9 of the above mentioned document) sets forth the purpose of the RTP as follows:

- Providing an assessment of the current modes of transportation and the potential of new travel options within the region;

- Projecting/estimating the future needs for travel and goods movement;

- Identification and documentation of specific actions necessary to address regional mobility and accessibility needs;

- Identification of guidance and documentation of public policy decisions by local, regional, state and federal officials regarding transportation expenditures and financing;

[1] *A Transit Priority Area is an area within ½-mile of high quality transit: a rail stop or a bus corridor that provides or will provide at least 15-minute frequency service during peak hours by the year 2035.*

- Identification of needed transportation improvements, in sufficient detail, to serve as a foundation for the: (a) Development of the Federal Transportation Improvement Program (FTIP), and the State Transportation Improvement Program (STIP), (b) Facilitation of the National Environmental Protection Act (NEPA)/404 integration process and (c) Identification of project purpose and need;

- Employing performance measures that demonstrate the effectiveness of the transportation improvement projects in meeting the intended goals;

- Promotion of consistency between the California Transportation Plan, the regional transportation plan and other plans developed by cities, counties, districts, California Tribal

- Governments, and state and federal agencies in responding to statewide and interregional transportation issues and needs;

- Providing a forum for: (1) participation and cooperation and (2) facilitation of partnerships that reconcile transportation issues which transcend regional boundaries; and,

- Involving community-based organizations as part of the public, Federal, State and local agencies, California Tribal Governments, as well as local elected officials, early in the transportation planning process so as to include them in discussions and decisions on the social, economic, air quality and environmental issues related to transportation.

The 2014 RTP/SCS must also comply with requirements specified in federal transportation planning regulations which may have changed since the 2011 RTP. MAP-21, signed into law in July 2012, requires that regional transportation plans describe a set of performance measures and targets, evaluate the transportation system with respect to those targets, and discuss potential environmental mitigation activities. Other federal requirements include consistency with the 1990 Clean Air Act Amendments and consistency with the Federal Transportation Improvement Program (FTIP). Specific requirements of these two programs are described in the Draft 2014 RTP/SCS, which is available for review at StanCOG.

Thematically, the 2014 comprehensive update of the Stanislaus County RTP/SCS continues with the 2011 RTP's overarching concepts of fiscal constraint and system planning. The RTP/SCS also includes general policy direction for countywide transportation as well as a listing of specific actions to be undertaken to meet the policy directives. Actions include various improvements to roadways and bikeways, improvements to transit, rail, and airport service, transportation demand management (TDM), intelligent transportation system (ITS), and alternative fuel projects. Specific actions to be undertaken under each of these major categories are listed in Tables 2-1 through 2-9 of Section 2.0, Project Description.

ALTERNATIVES

This Programmatic Environmental Impact Report (PEIR) examines four alternatives to the proposed Project : Alternative 1, the "No Project" alternative, is comprised of a land use pattern that reflects existing land use trends and a transportation network comprised of transportation

projects that are currently in construction or are funded in the short range Regional Transportation Improvement Plan (RTIP); Alternative 2: Historical Trend, includes a land use pattern that reflects historical land use trends with growth occurring adjacent to existing communities resulting in the expansion of community boundaries. This alternative would provide limited infill development; Alternative 3: New Trend, includes a land use pattern that concentrates forecasted population and employment growth adjacent to existing communities as dictated within the General Plans as well as infill development with some neighborhoods located near services and employment; and Alternative 4: More Change Alternative includes a land use pattern comprised of very limited expansion of existing community boundaries with infill located within downtowns and mixed use neighborhoods.

Based on the alternatives analysis, Alternatives 3 and 4 may be considered environmentally superior to the Proposed Project. Table ES-1 summarizes the findings of the alternatives analysis. The No Project Alternative (Alternative 1) would not be considered environmentally superior overall. Although it would entail the fewest projects and result in the fewest construction-related impacts and impacts associated with ground disturbance, many of the transportation improvements and infill/mixed use and related projects envisioned in the Proposed Project would not be developed. As a consequence, total VMT, energy use, air contaminant and GHG emissions impacts would be greater with this alternative as compared to the Proposed Project. Under Alternative 2, land use patterns would encourage development consistent with historical trends and current General Plans. Alternative 2 would not be considered environmentally superior to the proposed project primarily because VMT and CVMT would be higher. This would result in more severe air quality, GHG, energy, and transportation impacts and have a greater impact to low income and minority populations as fewer people within these communities would be served by transportation improvements than anticipated for the proposed project.

Alternative 3 may be considered environmentally superior to the proposed project. The VMT would be slightly less under this alternative when compared to the proposed project; thus, Alternative 3 would result in less GHG, energy and transportation impacts which is a desired outcome of the overall RTP/SCS process mandated by SB 375. However, relative to the proposed project, fewer people within low income and minority communities would be served by transportation improvements. Further, the CVMT would be greater under this alternative which indicates higher traffic congestion than anticipated for the proposed project. Thus, while Alterative 3 could be considered environmentally superior, it would not perform as well as the proposed project relative to certain StanCOG performance metrics.

Alternative 4 may be considered environmentally superior to the proposed project. The VMT would be slightly less; thus, Alternative 4 would result in less GHG, energy and transportation impacts than the RTP/SCS. Unlike Alternative 3, Alternative 4 would provide better transit performance and higher service levels to minority and low income populations relative to the proposed project. Based on the higher density development proposed, it may result in greater aesthetic (light and glare) and noise impacts than the proposed project, particularly in urban areas. The higher CVMT when compared to the proposed project indicates higher traffic congestion and related impacts to air quality would also occur.

Based on the information presented herein, Alternative 4 is determined to be the environmentally superior alternative when considering overall environmental impact relative

to the performance metrics and attainment of SB 375 requirements. However, superior performance of this alternative with respect to certain metrics is largely attributable to land use parameters that are beyond the control of StanCOG. For example, under this alternative, expansion of existing community boundaries and larger lot single-family residential development would be limited, which would rely upon land use changes by the municipalities within the region that retain land use authority. Therefore, implementation of this alternative and achievement of performance metrics such as lower VMT may not be feasible.

Table ES-1
Alternative Comparison

Issue	Alternative 1: No Project Alternative	Alternative 2: Historical Trend	Alternative 3: New Trend	Alternative 4: More Change
Aesthetics	=	=	=	=
Agriculture	-	+	+	=
Air Quality	+	+	-	-/=
Biological Resources	-	+	=	-
Cultural Resources	-	+	=	-
Energy	+	+	+	=/+
Environmental Justice	+	+	+	-
Geology	=	+	=	=
Greenhouse Gases	+	+	-	-
Hydrology	-	+	=	-
Land Use	-	-	-	+
Noise	=	+	-/=	+
Transportation and Circulation	=/+	+	=/+	=/+
Overall	**-/=**	**+**	**+/-**	**+/-**

- impacts would be less than the 2014 RTP/SCS
= impacts would be similar to the 2014 RTP/SCS
+ Impacts would be greater than the 2014 RTP/SCS

SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table ES-2 includes a brief description of the environmental impacts, proposed mitigation measures and the level of significance after mitigation. Specific 2014 RTP/SCS projects that may contribute to the impacts described below are listed in tables at the end of each impact section (4.1 through 4.12). Many of the impacts listed in Table ES-2 have been classified as "Significant and Unavoidable". While mitigation measures that could be implemented to reduce potential impacts to less than significant are recommended, and although StanCOG is the lead agency on this Program EIR, it does not have authority to require that the implementing agencies adopt and/or enforce recommended mitigation; therefore it cannot be assumed that the mitigation will occur. Thus, impacts that could be reduced to less than significant with mitigation are determined to be significant and unavoidable herein.

This document is a Program EIR. Section 15168(a) of the CEQA Guidelines states that:

> *A Program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either: (1) geographically; (2) as logical parts in a chain of contemplated actions; (3) in connection with issuance of rules, regulations, plans, or other general criteria, to govern the conduct of a continuing*

program; or (4) as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

As a programmatic document, this PEIR presents a regional assessment of the impacts of the proposed RTP/SCS. Analysis of site-specific impacts of individual projects is not the intended use of a program EIR. Many specific projects are not currently defined to the level that would allow for such an analysis. Individual specific environmental analysis of each project will be undertaken as necessary by the appropriate implementing agency prior to each project being considered for approval. Because the act of adopting the 2014 RTP/SCS would not, in itself, result in the implementation of transportation system improvements projects or programs identified in this document, no environmental impacts would be directly associated with this action. This program EIR serves as a first-tier environmental document under CEQA supporting second-tier environmental documents for:

- Transportation projects developed during the engineering design process; and
- Residential or mixed use and infill development projects consistent with RTP/SCS.

For the air quality, energy, greenhouse gas, and traffic environmental impacts resulting from the Program, this PEIR evaluates potential impacts against both (1) a forecast future baseline condition and (2) current, existing baseline conditions, controlling for impacts caused by population growth and other factors.

Class I impacts are defined as significant, unavoidable adverse impacts which require the adoption of a statement of overriding considerations per Section 15093 of the State CEQA Guidelines if the project is approved. Class II impacts are significant adverse impacts that can be feasibly mitigated to less than significant levels and which require findings to be made under Section 15091 of the State CEQA Guidelines. Class III are considered less than significant impacts, and Class IV are beneficial effects. "Project Sponsors" are defined herein as the implementing agency such as Caltrans, Stanislaus County, cities and other agencies responsible for approving and/or implementing a transportation or land development project in accordance with the 2014 RTP/SCS.

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
AESTHETICS		
Impact AES-1 The design of some of the proposed transportation projects may affect public views along designated scenic corridors, adjacent landscaping, and other roadways and highways considered to have high scenic qualities.	**AES-1(a)** Where a particular RTP/SCS improvement affects adjacent landforms, the local jurisdiction in which the project is located should ensure that recontouring provides a smooth and gradual transition between modified landforms and existing grade. This requirement can be accomplished through the placement of conditions on the project by the local jurisdiction during individual environmental review.	Class I, *Significant and unavoidable*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	AES-1(b) The local jurisdiction in which a particular RTP/SCS project is located should ensure that associated landscape materials and design enhance landform variation, provide erosion control and blend with the natural setting. This requirement can be accomplished through the placement of conditions on the project by the local jurisdiction during individual environmental review. To ensure compliance with approved landscape plans, the implementing agency shall provide a performance security equal to the value of the landscaping/irrigation installation. **AES-1(c)** The local jurisdiction or lead agency of a particular RTP/SCS project should ensure that a project in a scenic view corridor will have the minimum possible impact, consistent with project goals, upon foliage, existing landscape architecture and natural scenic views. This requirement shall be accomplished through the placement of conditions on the project design by the lead agency during the project specific environmental review and by ensuring that specific design considerations to achieve this mitigation are enacted at each stage of design by the project sponsor. **AES-1(d)** Potential noise impacts arising from increased traffic volumes associated with adjacent land development should be preferentially mitigated through the use of setbacks and the acoustical design of adjacent proposed structures. The use of sound barriers, or any other architectural features that could block views from the scenic highways or other view corridors, shall be discouraged to the extent possible. Where use of sound barriers is found to be necessary, walls shall incorporate offsets, accents, and landscaping to prevent monotony, as described in Mitigation Measure N-2(b).	
Impact AES-2 Development of proposed transportation improvement projects under the RTP/SCS, as well as the land use patterns envisioned by the plan would contribute to the alteration of Stanislaus County's character from primarily rural (or semi-rural) to a somewhat more suburban condition.	**AES-2(a)** Roadway extensions and widenings should avoid the removal of existing mature trees to the extent possible. Consistent with Mitigation Measure B-1(j), any trees that are protected by local agencies and would be removed should be replaced at a minimum ratio of 2:1 (trees planted to trees impacted) and incorporated into the landscaping design for the roadway. **AES-2(b)** Roadway lighting should be minimized to the extent possible, and shall not exceed the minimum height requirements of the local jurisdiction in which the project is proposed.	Class I, *Significant and unavoidable*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	AES-2(c) Bus shelters and other ancillary facilities constructed under the RTP/SCS should be designed in accordance with the architectural review requirements of the local jurisdiction in which the project is proposed. Bus shelters shall incorporate colors and wood materials complementary of the natural surroundings.	
AGRICULTURE		
Impact AG--1 Implementation of proposed transportation improvements and the land use scenario envisioned by the RTP/SCS could result in the conversion of Prime Farmland and lands under Williamson Act contract to non-agricultural uses.	**AG-1(a)** When new roadway extensions or widenings are planned, the project sponsor should assure that project-specific environmental reviews consider alternative alignments that reduce or avoid impacts to Prime Farmlands. **AG-1(b)** Rural roadway alignments should follow property lines to the extent feasible, to minimize impacts to the agricultural production value of any specific property. Farmers shall be compensated for the loss of agricultural production at the margins of lost property, based on the amount of land deeded as road right-of-way, as a function of the total amount of production on the property. **AG-1(c)** Project sponsors should consider corridor realignment, buffer zones, setbacks, and fencing to reduce conflict between agricultural lands and neighboring uses. **AG-1(d)** Quantify potential for direct conversion of Important Farmland using the LESA model or a similar quantitative tool. **AG-1(e)** Compensate for conversion impacts to Prime Farmland by purchasing agricultural conservation easements (ACE) or funding the acquisition of agricultural mitigation lands through an appropriate land trust (including, but not limited to the Central Valley Farmland Trust). **AG-1(f)** Project proponents should conduct an analysis of potential conflicts with Williamson Act contracts at the project level, consistent with the State CEQA Guidelines and Chapter 21.20 of the Stanislaus County Code. If the impacts of the proposed roadway projects on Williamson Act contract lands are determined to be significant, implement the following measures to reduce the impacts to a less-than-significant level: a. Design the proposed roadway projects to avoid or minimize the displacement of current and reasonably foreseeable agricultural operations from affected Williamson Act contract lands. b. Where it has been determined that cancellation of a Williamson Act contract for a parcel, or a portion of a parcel, may result in impacts to Prime or Important Farmland, Mitigation Measure AG-1 shall be implemented	

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
Impact AG--2 Implementation of proposed transportation improvements and the land use scenario envisioned by the RTP/SCS could create adverse effects on farming operations.	**AG-2** Project sponsors should coordinate with land and agricultural business owners affected by project improvements to identify direct access or related impacts to farmlands or farming operations located adjacent to roadways corridors.	Class I, *Significant and unavoidable*
AIR QUALITY		
Impact AQ-1 Construction activities associated with transportation projects under the RTP/SCS, as well as the land use patterns envisioned by the proposed plan, would have the potential to result in temporary adverse impacts on air quality in Stanislaus County.	**AQ-1(a)** The project sponsor should ensure that SJVAPCD Regulation VIII control measures (listed in Table 6-2 of the GAMAQI) are implemented as necessary to reduce emissions to a less than significant level. The measures shall be noted on all construction plans and the project sponsor shall perform periodic site inspections. SJVAPCD Regulation VIII control measures include the following: • All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover. • All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant. • All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking. • With the demolition of buildings up to six stories in height, all exterior surfaces of the building shall be wetted during demolition. • When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained. • All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.) (Use of blower devices is expressly forbidden.) • Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant. • Within urban areas, trackout shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday.	Class I, *Significant and unavoidable*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	• Any site with 150 or more vehicle trips per day shall prevent carryout and trackout. **AQ-1(b)** The project sponsor should ensure that SJVAPCD enhanced control measures (listed in Table 6-3 of the GAMAQI) are implemented as necessary to reduce emissions to a less than significant level. The measures should be noted on all construction plans and the project sponsor shall perform periodic site inspections. SJVAPCD enhanced control measures include the following: • Limit traffic speeds on unpaved roads to 15 mph. • Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent. ~~**AQ-1(c)** The project sponsor should ensure that applicable SJVAPCD additional control measures (listed in Table 6-3 of the GAMAQI) are implemented as necessary to reduce emissions to a less than significant level. The measures should be noted on all construction plans and the project sponsor shall perform periodic site inspections. SJVAPCD additional control measures include the following:~~ • Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site. • Install wind breaks at windward side(s) of construction areas. • Suspend excavation and grading activity when winds exceed 20 mph. • Limit area subject to excavation, grading, and other construction activity at any one time **AQ-1(c~~d~~)** ———The project sponsor should incorporate the following SJVAPCD heavy duty construction equipment mitigation measures (listed in Table 6-4 of the GAMAQI) to the maximum extent feasible: • Use alternative fueled or catalyst equipped diesel construction equipment. • Minimize idling time. • Limit the hours of operation of heavy duty equipment and/or the amount of equipment in use. • Replace fossil-fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set). • Curtail construction during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways.	

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	• Implement activity management (e.g. rescheduling activities to reduce short-term impacts).	
Impact AQ-2 Implementation of the RTP/SCS would result in an overall reduction of on-road vehicle emissions when compared to the 2012 EIR Baseline and existing conditions established by applicable air quality plans, and would not result in an increase in criteria pollutants over the future 'no project scenario.'	None required.	Class III, *Less than significant.*
Impact AQ-3 The transportation improvement projects and the land use envisioned by the RTP/SCS may facilitate increased exposure of sensitive receptors to hazardous air pollutants that may cause health risks. Implementation of the RTP/SCS would not result in a regional increase in toxic air emissions when compared to the 2012 EIR baseline and applicable air quality plan baselines, or when compared to the future 'no project scenario'. However, localized increases may occur as a result of infill and transit oriented development facilitated by the RTP/SCS land use scenario.	**AQ-3(a)** The project sponsor should retain a qualified air quality consultant to prepare a health risk assessment in accordance with the California Air Resources Board and the Office of Environmental Health and Hazard Assessment requirements to determine the exposure of project residents/occupants/users to stationary air quality polluters prior to issuance of a demolition, grading, or building permit. The health risk assessment shall be submitted to the Lead Agency for review and approval. The sponsor shall implement the approved health risk assessment recommendations, if any. Such measures may include: • Do not locate sensitive receptors near the entry and exit points of a distribution center. • Do not locate sensitive receptors in the same building as a perchloroleythene dry cleaning facility. • Maintain a 50 foot buffer from a typical gas dispensing facility (under 3.6 million gallons of gas per year). • Install, operate and maintain in good working order a central heating and ventilation system or other air take system in the building, or in each individual residential unit, that meets the efficiency standard of the minimum efficiency reporting value 13. The heating and ventilation system should include the following features: Installation of a high efficiency filter and/or carbon filter-to-filter particulates and other chemical matter from entering the building. Either high efficiency particulate absorption filters or American Society of Heating, Refrigeration, and Air-Conditioning Engineers 85% supply filters should be used. • Retain a qualified heating and ventilation consultant or high efficiency particulate absorption rater during the design phase of the project to locate the heating and ventilation system based on exposure modeling from the mobile and/or stationary pollutant sources. • Maintain positive pressure within the building.	Class I, *Significant and unavoidable*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	• Achieve a performance standard of at least one air exchange per hour of fresh outside filtered air. • Achieve a performance standard of at least 4 air exchanges per hour of recirculation. • Achieve a performance standard of .25 air exchanges per hour of in unfiltered infiltration if the building is not positively pressurized.	
Impact AQ-4 Re-entrained dust has the potential to increase airborne PM_{10} and $PM_{2.5}$ levels in Stanislaus County. The increase in growth expected through the RTP/SCS planning horizon would result in additional vehicle miles traveled, which would add to the PM_{10} and $PM_{2.5}$ levels in the area. However, re-entrained dust levels would be lower with the RTP/SCS than the 2012 EIR baseline and 2007 existing conditions established by the applicable air quality plans.	None required.	Class III, *Less than significant.*
Impact AQ-5 The proposed RTP/SCS forecast horizon and growth assumptions are not consistent with those of applicable air quality plans.	None required.	The 2014 RTP/SCS is considered consistent with the SJVAPCD air quality plans.
BIOLOGY		
Impact B-1 Implementation of transportation improvements proposed and the land use scenario envisioned by the 2014 RTP/SCS may result in impacts to special status plant and animal species	**B-1(a) Biological Resources Screening and Assessment.** Because of the programmatic nature of the 2014 RTP/SCS and specific impacts for a given project are unknown at this time, on a project-by-project basis, a preliminary biological resource screening should be performed to determine whether the project has any potential to impact biological resources. If it is determined that the project has no potential to impact biological resources, no further action is required. If the project would have the potential to impact biological resources, prior to construction, a qualified biologist shall conduct a biological resources assessment (BRA) or similar type of study to document the existing biological resources within the project footprint plus a buffer and to determine the potential impacts to those resources. The BRA should evaluate the potential for impacts to all biological resources including, but not limited to special status species, nesting birds, wildlife movement, sensitive plant communities/critical habitat and other resources judged to be sensitive by local, state, and/or federal agencies. Pending the results of the BRA, design alterations, further technical studies (i.e. protocol surveys) and/or consultations with the USFWS, CDFW and/or other local, state, and federal agencies may be required. The following mitigation measures [B-1(b) through B-1(k)] shall be incorporated, only as applicable, into the BRA for	Class I, *Significant and unavoidable*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	projects where specific resources are present or may be present and impacted by the project. Note that specific surveys described in the mitigation measures below may be completed as part of the BRA where suitable habitat is present. **B-1(b) Special Status Plant Species Surveys.** If completion of the project-specific BRA determines that special status plant species may occur on-site, surveys for special status plants shall be completed prior to any vegetation removal, grubbing, or other construction activity of each segment (including staging and mobilization). The surveys shall be floristic in nature and shall be seasonally-timed to coincide with the target species identified in the project-specific BRA. All plant surveys shall be conducted by a qualified biologist approved by the implementing agency no more than two years before initial ground disturbance. All special status plant species identified on-site shall be mapped onto a site-specific aerial photograph and topographic map. Surveys shall be conducted in accordance with the most current protocols established by the CDFW, USFWS, and the local jurisdictions if said protocols exist. A report of the survey results shall be submitted to the implementing agency, and the CDFW and/or USFWS, as appropriate, for review and approval. **B-1(c) Special Status Plant Species Avoidance, Minimization, and Mitigation.** If State listed or California Rare Plant List 1B species are found during special status plant surveys [pursuant to mitigation measure B-1(b)], then the project shall be re-designed to avoid impacting these plant species, if feasible. Rare plant occurrences that are not within the immediate disturbance footprint, but are located within 50 feet of disturbance limits shall have bright orange protective fencing installed at least 30 feet beyond their extent to protect them from harm. **B-1(d) Restoration and Monitoring.** If special status plants species cannot be avoided and will be impacted by a project implemented under the 2014 RTP/SCS, all impacts shall be mitigated at a minimum ratio of 2:1 (number of acres/individuals restored to number of acres/individuals impacted) for each species as a component of habitat restoration. A restoration plan shall be prepared and submitted to the jurisdiction overseeing the project for approval. (Note: if a state listed plant species will be impacted, the restoration plan shall be submitted to the CDFW for approval). The restoration plan shall include, at a minimum, the following components: • Description of the project/impact site (i.e., location, responsible parties, areas to be impacted by habitat type);	

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	• Goal(s) of the compensatory mitigation project [type(s) and area(s) of habitat to be established, restored, enhanced, and/or preserved; specific functions and values of habitat type(s) to be established, restored, enhanced, and/or preserved]; • Description of the proposed compensatory mitigation site (location and size, ownership status, existing functions and values); • Implementation plan for the compensatory mitigation site (rationale for expecting implementation success, responsible parties, schedule, site preparation, planting plan); • Maintenance activities during the monitoring period, including weed removal as appropriate (activities, responsible parties, schedule); • Monitoring plan for the compensatory mitigation site, including no less than quarterly monitoring for the first year (performance standards, target functions and values, target acreages to be established, restored, enhanced, and/or preserved, annual monitoring reports); • Success criteria based on the goals and measurable objectives; said criteria to be, at a minimum, at least 80 percent survival of container plants and 30 percent relative cover by vegetation type; • An adaptive management program and remedial measures to address any shortcomings in meeting success criteria; • Notification of completion of compensatory mitigation and agency confirmation; and • Contingency measures (initiating procedures, alternative locations for contingency compensatory mitigation, funding mechanism). **B-1(e) Endangered/Threatened Species Habitat Assessment and Protocol Surveys.** Specific habitat assessment and survey protocol surveys are established for several federally and State Endangered or Threatened species. If the results of the BRA determine that suitable habitat may be present any such species, protocol habitat assessments/surveys shall be completed in accordance with CDFW and/or USFWS protocols prior to issuance of any construction permits. If through consultation with the CDFW and/or USFWS it is determined that protocol habitat assessments/surveys are not required, said consultation shall be documented prior to issuance of any construction permits. Each protocol has different survey and timing requirements. The applicants for each project shall be responsible for ensuring they understand the protocol requirements.	

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	B-1(f) Endangered/Threatened Species Avoidance and Minimization. The habitat requirements of endangered and threatened species throughout the County are highly variable. The potential impacts from any given project implemented under the 2014 RTP/SCS are likewise highly variable. However, there are several avoidance and minimization measures which can be applied for a variety of species to reduce the potential for impact, with the final goal of no net loss of the species. The following measures may be applied to aquatic and/or terrestrial species. Project sponsors shall select from these measures as appropriate. • Ground disturbance shall be limited to the minimum necessary to complete the project. The project limits of disturbance shall be flagged. Areas of special biological concern within or adjacent to the limits of disturbance shall have highly visible orange construction fencing installed between said area and the limits of disturbance. • All projects occurring within/adjacent to aquatic habitats (including riparian habitats and wetlands) shall be completed between April 1 and October 31, if feasible, to avoid impacts to sensitive aquatic species. • All projects occurring within or adjacent to sensitive habitats that may support federally and/or state Endangered/Threatened species shall have a CDFW and/or USFWS-approved biologist present during all initial ground disturbing/vegetation clearing activities. Once initial ground disturbing/vegetation clearing activities have been completed, said biologist shall conduct daily pre-activity clearance surveys for Endangered/Threatened species. Alternatively, and upon approval of the CDFW and/or USFWS, said biologist may conduct site inspections at a minimum of once per week to ensure all prescribed avoidance and minimization measures are begin fully implemented. • No Endangered/Threatened species shall be captured and relocated without expressed permission from the CDFW and/or USFWS. • If at any time during construction of the project an Endangered/Threatened species enters the construction site or otherwise may be impacted by the project, all project activities shall cease. A CDFW/USFWS-approved biologist shall document the occurrence and consult with the CDFW and/or USFWS as appropriate. • For all projects occurring in areas where Endangered/Threatened species may be present and are at risk of entering the project site during construction, exclusion fencing shall be placed along the project boundaries prior to	

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Impact	Mitigation Measures	Significance After Mitigation
	start of construction (including staging and mobilization). The placement of the fence shall be at the discretion of the CDFW/USFWS-approved biologist. This fence shall consist of solid silt fencing placed at a minimum of 3 feet above grade and 2 feet below grade and shall be attached to wooden stakes placed at intervals of not more than 5 feet. The fence shall be inspected weekly and following rain events and high wind events and shall be maintained in good working condition until all construction activities are complete. • All vehicle maintenance/fueling/staging shall occur not less than 100 feet from any riparian habitat or water body. Suitable containment procedures shall be implemented to prevent spills. A minimum of one spill kit shall be available at each work location near riparian habitat or water bodies. • No equipment shall be permitted to enter wetted portions of any affected drainage channel. • All equipment operating within streams shall be in good conditions and free of leaks. Spill containment shall be installed under all equipment staged within stream areas and extra spill containment and clean up materials shall be located in close proximity for easy access. • If project activities could degrade water quality, water quality sampling shall be implemented to identify the pre-project baseline, and to monitor during construction for comparison to the baseline. • If water is to be diverted around work sites, a diversion plan shall be submitted (depending upon the species that may be present) to the CDFW, RWQCB, USFWS, and/or NMFS for their review and approval prior to the start of any construction activities (including staging and mobilization). If pumps are used, all intakes shall be completely screened with wire mesh not larger than five millimeters to prevent animals from entering the pump system. • At the end of each work day, excavations shall be secured with cover or a ramp provided to prevent wildlife entrapment. • All trenches, pipes, culverts or similar structures shall be inspected for animals prior to burying, capping, moving, or filling. • The CDFW/USFWS-approved biologist shall remove invasive aquatic species such as bullfrogs and crayfish from suitable aquatic habitat whenever observed and shall dispatch them in a humane manner and dispose of properly.	

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	• If any federally and/or state protected species are harmed, the CDFW/USFWS-approved biologist shall document the circumstances that led to harm and shall determine if project activities should cease or be altered in an effort to avoid additional harm to these species. Dead or injured special status species shall be disposed of at the discretion of the CDFW and USFWS. All incidences of harm shall be reported to the CDFW and USFWS within 48 hours. **B-1(g) Non-Listed Special Status Animal Species Avoidance and Minimization.** Several State Species of Special Concern may be impacted by projects implemented under the 2014 RTP/SCS. The ecological requirements and potential for impacts is highly variable among these species. Depending on the species identified in the BRA, several of the measures identified under B-1(f) shall be applicable to the project. In addition, measures shall be selected from among the following to reduce the potential for impacts to non-listed special status animal species: • For non-listed special-status terrestrial amphibians and reptiles, coverboard surveys shall be completed within three months of the start of construction. The coverboards shall be at least four feet by four feet and constructed of untreated plywood placed flat on the ground. The coverboards shall be checked by a qualified biologist once per week for each week after placement up until the start of vegetation removal. All non-listed special status and common animals found under the coverboards shall be captured and placed in five-gallon buckets for transportation to relocation sites. All relocation sites shall be reviewed by the project sponsor and shall consist of suitable habitat. Relocation sites shall be as close to the capture site as possible but far enough away to ensure the animal(s) is not harmed by construction of the project. Relocation shall occur on the same day as capture. CNDDB Field Survey Forms shall be submitted to the CDFW for all special status animal species observed. • Pre-construction clearance surveys shall be conducted within 14 days of the start of construction (including staging and mobilization). The surveys shall cover the entire disturbance footprint plus a minimum 200 foot bufferand shall identify all special status animal species that may occur on-site. All non-listed special status species shall be relocated from the site either through direct capture or through passive exclusion (e.g., American badger). A report of the pre-construction survey shall be submitted to StanCOGand/or the local	

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	jurisdiction for their review and approval prior to the start of construction. • A qualified biologist shall be present during all initial ground disturbing activities, including vegetation removal to recover special status animal species unearthed by construction activities. • Upon completion of the project, a qualified biologist shall prepare a Final Compliance report documenting all compliance activities implemented for the project, including the pre-construction survey results. The report shall be submitted within 30 days of completion of the project. • If special status bat species may be present and impacted by the project, a qualified biologist shall conduct within 30 days of the start of construction presence/absence surveys for special status bats in consultation with the CDFW where suitable roosting habitat is present. Surveys shall be conducted using acoustic detectors and by searching tree cavities, crevices, and other areas where bats may roost. If active roosts are located, exclusion devices such as netting shall be installed to discourage bats from occupying the site. If a roost is determined by a qualified biologist to be used by a large number of bats (large hibernaculum), bat boxes shall be installed near the project site. The number of bat boxes installed will depend on the size of the hibernaculum and shall be determined through consultations with the CDFW. If a maternity colony has become established, all construction activities shall be postponed within a 500-foot buffer around the maternity colony until it is determined by a qualified biologist that the young have dispersed. Once it has been determined that the roost is clear of bats, the roost shall be removed immediately. **B-1(h) Preconstruction Surveys for Nesting Birds.** For construction activities occurring during the nesting season (generally February 1 to September 15), surveys for nesting birds covered by the California Fish and Game Code and the Migratory Bird Treaty Act shall be conducted by a qualified biologist no more than 14 days prior to vegetation removal. The surveys shall include the entire segment disturbance area plus a 200 foot buffer around the site. If active nests are located, all construction work shall be conducted outside a buffer zone from the nest to be determined by the qualified biologist. The buffer shall be a minimum of 50 feet for non-raptor bird species and at least 150 feet for raptor species. Larger buffers may be required depending upon the status of the nest and the construction activities	

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	occurring in the vicinity of the nest. The buffer area(s) shall be closed to all construction personnel and equipment until the adults and young are no longer reliant on the nest site. A qualified biologist shall confirm that breeding/nesting is completed and young have fledged the nest prior to removal of the buffer. A report of these preconstruction nesting birds surveys shall be submitted to StanCOG and/or the local jurisdiction. **B-1(i) Worker Environmental Awareness Program (WEAP).** Prior to initiation of construction activities (including staging and mobilization), all personnel associated with project construction shall attend WEAP training, conducted by a qualified biologist, to aid workers in recognizing special status resources that may occur in the project area. The specifics of this program shall include identification of the sensitive species and habitats, a description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and mitigation measures required to reduce impacts to biological resources within the work area. A fact sheet conveying this information shall also be prepared for distribution to all contractors, their employers, and other personnel involved with construction of the project. All employees shall sign a form documenting that they have attended the WEAP and understand the information presented to them. The form shall be submitted to StanCOG and/or the local jurisdiction to document compliance. **B-1(j) Tree Protection.** If it is determined that construction may impact trees protected by local agencies, the project sponsor shall procure all necessary tree removal permits. A tree protection and replacement plan shall be developed by a certified arborist as appropriate. The plan shall include, but would not be limited to, an inventory of trees to within the construction site, setbacks from trees and protective fencing, restrictions regarding grading and paving near trees, direction regarding pruning and digging within root zone of trees, and requirements for replacement and maintenance of trees. If protected trees will be removed, replacement tree plantings of like species in accordance with local agency standards, but at a minimum ratio of 2:1 (trees planted to trees impacted), shall be installed on-site or at an approved off-site location and a restoration and monitoring program shall be developed in accordance with B-1(d) and shall be implemented for a minimum of seven years. If a protected tree shall be encroached upon but not removed, a certified arborist shall be present to oversee all trimming of roots and branches.	

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
Impact B-2 Implementation of transportation improvements proposed and the land use scenario envisioned by the 2014 RTP/SCS may result in impacts to sensitive habitats, including federally protected wetlands..	**B-2(a) Jurisdictional Delineation.** If projects implemented under the 2014 RTP/SCS occur within or adjacent to wetland, drainages, riparian habitats, or other areas that may fall under the jurisdiction of the CDFW, USACE, and/or RWQCB, a qualified biologist shall complete a jurisdictional delineation. The jurisdictional delineation shall determine the extent of the jurisdiction for each of these agencies and shall be conducted in accordance with the requirement set forth by each agency. The result shall be a preliminary jurisdictional delineation report that shall be submitted to the implementing agency, USACE, RWQCB, and CDFW, as appropriate, for review and approval. If jurisdictional areas are expected to be impacted, then the RWQCB would require a Waste Discharge Requirements (WDR) permit and/or Section 401 Water Quality Certification (depending upon whether or not the feature falls under federal jurisdiction). If CDFW asserts its jurisdictional authority, then a Streambed Alteration Agreement pursuant to Section 1600 *et seq.* of the California Fish and Game Code would also be required prior to construction within the areas of CDFW jurisdiction. If the USACE asserts its authority, then a permit pursuant to Section 404 of the Clean Water Act would likely be required. **B-2(b) Wetland and Riparian Habitat Restored.** Impacts to jurisdictional wetland and riparian habitat shall be mitigated at a minimum ratio of 2:1 (acres of habitat restored to acres impacted), and shall occur on-site or as close to the impacted habitat as possible, <u>except within an Airport Influence Area (AIA) as identified in the County's Airport Land Use Compatibility Plan (ALUCP)</u>. <u>Mitigation for impacts to jurisdictional wetland and riparian habitat shall only be included within an AIA if consistent with the ALUCP</u>. A mitigation and monitoring plan shall be developed by a qualified biologist in accordance with mitigation measure B-1(d) above and shall be implemented for no less than five years after construction of the segment, or until the StanCOG/local jurisdiction and/or the permitting authority (e.g., CDFW or USACE) has determined that restoration has been successful. **B-2(c) Landscaping Plan.** If landscaping is proposed for a specific project, a qualified biologist/landscape architect shall prepare a landscape plan for that project. This plan shall indicate the locations and species of plants to be installed. Drought tolerant, locally native plant species shall be used. Noxious, invasive, and/or non-native plant species that are recognized on the Federal Noxious Weed List, California Noxious Weeds List, and/or California Invasive Plant Council Lists 1, 2, and 4 shall not be permitted. Species selected for planting shall be similar to those species found in adjacent native habitats. <u>If landscaping is proposed within an Airport</u>	Class I, *Significant and unavoidable*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	Influence Area, the plan and planting materials should be developed to prevent the attraction of potentially hazardous wildlife and should be reviewed by an FAA-qualified hazard biologist. **B-2(d) Invasive Weed Prevention and Management Program.** Prior to start of construction for each project, an Invasive Weed Prevention and Management Program shall be developed by a qualified biologist to prevent invasion of native habitat by non-native plant species. A list of target species shall be included, along with measures for early detection and eradication. All disturbed areas shall be hydroseeded with a mix of locally native species upon completion of work in those areas. In areas where construction is ongoing, hydroseeding shall occur where no construction activities have occurred within six (6) weeks since ground disturbing activities ceased. If exotic species invade these areas prior to hydroseeding, weed removal shall occur in consultation with a qualified biologist and in accordance with the restoration plan. If hydroseeding is proposed within an Airport Influence Area, the seed mixture shall be developed to prevent the attraction of potentially hazardous wildlife and shall be reviewed by an FAA-qualified hazard biologist.	
Impact B-3 Implementation of transportation improvements proposed and the land use scenario envisioned by the 2014 RTP/SCs may impact wildlife movement, including fish migration, and/or impede the use of native wildlife nursery.	**B-3(a) Fence and Lighting Design.** All projects including long segments of fencing and lighting should be designed to minimize impacts to wildlife. Fencing shall not block wildlife movement through riparian or other natural habitat. Where fencing is required for public safety concerns, the fence shall be designed to permit wildlife movement by incorporating design features such as: • A minimum 16 inches between the ground and the bottom of the fence to provide clearance for small animals; • A minimum 12 inches between the top two wires, or top the fence with a wooden rail, mesh, or chain link instead of wire to prevent animals from becoming entangled; and • If privacy fencing is required near open space areas, openings at the bottom of the fence measure at least 16 inches in diameter shall be installed at reasonable intervals to allow wildlife movement. If fencing must designed in such a manner that wildlife passage would not be permitted, wildlife crossing structures shall be incorporated into the project design as appropriate. Similarly, lighting installed as part of any project shall be designed to be minimally disruptive to wildlife. This may be accomplished through the use of hoods to direct light away from natural habitat, using low intensity lighting, and using a few lights as necessary to achieve the goals of the project.	Class I, *Significant and unavoidable*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	B-3 (b) Construction Best Management Practices. The following construction Best Management Practices (BMPs) should be incorporated into all grading and construction plans: • Designation of a 20 mile per hour speed limit in all construction areas. • All vehicles and equipment shall be parked on pavement, existing roads, and previously disturbed areas, and clearing of vegetation for vehicle access shall be avoided to the greatest extent feasible. • The number of access routes, number and size of staging areas, and the total area of the activity shall be limited to the minimum necessary to achieve the goal of the project. • Designation of equipment washout and fueling areas to be located within the limits of grading at a minimum of 100 feet from waters, wetlands, or other sensitive resources as identified by a qualified biologist. Washout areas shall be designed to fully contain polluted water and materials for subsequent removal from the site. • Daily construction work schedules shall be limited to daylight hours • Mufflers shall be used on all construction equipment and vehicles shall be in good operating condition. • Drip pans shall be placed under all stationary vehicles and mechanical equipment. • All trash shall be placed in sealed containers and shall be removed from the project site a minimum of once per week. • No pets are permitted on project site during construction.	
CULTURAL RESOURCES		
Impact CR-1 Implementation of proposed transportation improvements and the land use scenario envisioned by the 2014 RTP/SCS could disturb known and unknown cultural resources.	**CR-1(a)** The project sponsor of a 2014 RTP/SCS project involving earth disturbance, the installation of pole signage or lighting, or construction of permanent above ground structures or roadways should ensure that the following elements are included in the project's individual environmental review: 1. Prior to project construction, a map defining the Area of Potential Effects (APE) shall be prepared on a project by project basis for 2014 RTP/SCS improvements which involve earth disturbance, the installation of pole signage or lighting, or construction of permanent above ground structures. This map will indicate the areas of primary and secondary disturbance associated with construction and operation of the facility and will help in determining whether known archeological, paleontological or historical resources are located within the impact zone.	Class I, *Significant and unavoidable*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	2. A preliminary study of each project area, as defined in the APE, shall be completed to determine whether or not the project area has been studied under an earlier investigation, and to determine the impacts of the previous project. 3. If the results of the preliminary studies indicate additional studies are necessary; development of field studies and/or other documentary research shall be developed and completed (Phase I studies). Negative results would result in no additional studies for the project area. 4. Based on positive results of the Phase I studies, an evaluation of identified resources shall be completed to determine the potential eligibility/ significance of the resources (Phase II studies). 5. Phase III mitigation studies shall be coordinated with the Office of Historic Preservation, as the research design will require review and approval from the OHP. In the case of prehistoric or Native American related resources, the Native American Heritage Commission and/or local representatives of the Native American population shall be contacted and permitted to respond to the testing/mitigation programs. **CR-1(b)** If development of the proposed improvement requires the presence of an archaeological, Native American, or paleontological monitor, the project sponsor shall ensure that a Native American monitor, certified archaeologist, and/or certified paleontologist, as applicable, monitors the grading and/or other initial ground altering activities. The schedule and extent of the monitoring will depend on the grading schedule and/or extent of the ground alterations. This requirement can be accomplished through placement of conditions on the project by the local jurisdiction during individual environmental review. **CR-1(c)** The project sponsor should ensure that materials recovered over the course of any given improvement are adequately cleaned, labeled, and curated at a recognized repository. This requirement can be accomplished through placement of conditions on the project by the local jurisdiction during individual environmental review.	

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	CR-1(d) The project sponsor should ensure that mitigation for potential impacts to significant cultural resources includes one or more of the following: • Realignment of the project right-of-way (avoidance; the most preferable method); • Capping of the site and leaving it undisturbed; • Addressing structural remains with respect to NRHP guidelines (Phase III studies); • Relocating structures per NRHP guidelines; • Creation of interpretative facilities; and/or • Development of measures to prevent vandalism. This can be accomplished through placement of conditions on the project by the local jurisdiction during individual environmental review.	
ENERGY		
Impact E-1 Future transportation improvement projects and implementation of the land use scenario envisioned by the RTP/SCS would increase demand for energy beyond existing conditions.	• New facilities should be designed with energy-efficient equipment and passive solar design (e.g., orientation of building to maximize natural heating and cooling, solar water heating, use of daylighting, and placement of trees to aid passive cooling, protection from prevailing winds and maximum year-round solar access), provided that additional capital costs are offset by estimated energy savings during the first 5 years of operation. Additional improvements with longer payback periods such as photovoltaic solar electric systems should be considered where applicable. • All lighting should be energy efficient and designed to use the least amount of energy to serve the purpose of the lighting. Lighting should utilize solar energy wherever feasible. • New landscaping design and irrigation systems should be water efficient.	Class III, *Less than significant.*
Impact E-2 RTP/SCS projects would not significantly impact the transportation of energy resources within the County.	None required.	Class III, *Less than significant.*
ENVIRONMENTAL JUSTICE		
Impact EJ-1 Implementation of the Valley Vision Stanislaus Plan may cause adverse effects on a minority or low-income population; however, these potential impacts would not be disproportionately high as per Executive Order 12898	None required in addition to those recommended to address impacts to Air Quality, Noise and Transportation and Circulation referenced above.	Class III, *Less than significant.*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
Impact EJ-2 The benefits derived from the 2014 Valley Vision Stanislaus Plan in terms of travel times and accessibility by transit, single-occupancy vehicles, bicycling or walking and access and availability of housing options will not be substantially less in environmental justice communities in StanCOG region.	None required.	Class III, *Less than significant*
GEOLOGY		
Impact G-1 Some RTP/SCS projects could be at risk from seismic activity. Although fault rupture and seismically induced liquefaction do not pose a substantial threat in Stanislaus County, RTP/SCS projects may be subject to substantial ground-shaking	**G-1(a)** The local jurisdiction in which a particular RTP/SCS bridge project is located shall ensure that the structure is designed and constructed to the latest geotechnical standards. This may necessitate site-specific geologic and soils engineering investigations to exceed the code for high ground-shaking zones. This can be accomplished through the placement of conditions on the project by the local jurisdiction during individual environmental review. **G-1(b)** If a RTP/SCS project is located in a zone of high potential ground-shaking intensity, the project sponsor should ensure that the structure is designed and constructed to the latest geotechnical standards. In most cases, this will necessitate site-specific geologic and soils engineering investigations conducted by a qualified geotechnical expert. Any investigations shall comply with the California Geological Survey's *Guidelines for Evaluating and Mitigating Seismic Hazards in California.*	Class I, *Significant and unavoidable.*
Impact G-2 Some projects envisioned in the RTP/SCSmay be located on unstable soils subject to riverbank erosion, shrinking, and swelling	**G-2(a)** If a RTP/SCS project is located in an area of highly expansive or erosive soils, the project sponsor should ensure that a site-specific geotechnical investigation is conducted. The investigation will identify hazardous conditions and recommend appropriate design factors to minimize hazards. Such measures could include concrete slabs on grade with increased steel reinforcement, removal of highly expansive material and replacement with non-expansive import fill material, or chemical treatment with hydrated lime to reduce the expansion characteristics of the soils. **G-2(b)** If a RTP/SCS project requires cut slopes over 20 feet in height or is located in areas of bedded or jointed bedrock, the project sponsor should ensure that specific slope stabilization studies are conducted. Possible stabilization methods include buttresses, retaining walls and soldier piles.	Class I, *Significant and unavoidable.*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
GREENHOUSE GAS EMISSIONS		
Impact GHG-1 Construction of the transportation improvement projects and future land use patterns envisioned by the RTP/SCS would generate temporary short-term GHG emissions.	**GHG-1** The project sponsor should ensure that applicable GHG-reducing diesel particulate and NOX emissions measures for off-road construction vehicles are implemented during construction. The measures shall be noted on all construction plans and the project sponsor shall perform periodic site inspections. Applicable GHG-reducing measures include the following. • Use of diesel construction equipment meeting ARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State Off-Road Regulation; • Use of on-road heavy-duty trucks that meet the ARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation; • All on and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the 5 minute idling limit; • Use of electric equipment in place of diesel-powered equipment, where feasible; • Substitute gasoline-powered in place of diesel-powered equipment, where feasible; and • Use of alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel	Class I, *Significant and unavoidable.*
Impact GHG-2 Implementation of the RTP/SCS would not result in a significant increase in GHG emissions	None required.	Class III, *Less than significant.*
Impact GHG-3 Implementation of the RTP/SCS would not interfere with the GHG emissions reduction goals of AB 32 or SB 375	None required.	Class III, *Less than significant.*
Impact GHG-4 Implementation of the RTP/SCS would not interfere with the goals of applicable GHG reduction plans and policies, including the adopted climate action plan for the City of Oakdale, as well as AB 32 and SB 375.	None required.	Class III, *Less than significant.*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
HYDROLOGICAL AND WATER RESOURCES		
Impact W-1 Implementation of proposed transportation improvements and future projects facilitated by the land use scenario envisioned in the RTP/SCS would incrementally increase countywide water demand.	**W-1(a)** The sponsor of a RTP/SCS project should ensure that, where economically feasible and available, reclaimed water is used for dust suppression during construction activities. This measure shall be noted on construction plans and shall be spot checked by the local jurisdiction. **W-1(b)** The sponsor of a RTP/SCS project should ensure that low water use landscaping (i.e., drought tolerant plants and drip irrigation) is installed. When feasible, native plant species shall be used. **W-1(c)** The sponsor of a RTP/SCS project should ensure that, if feasible, landscaping associated with proposed improvements is maintained using reclaimed water. **W-1(d)** The sponsor of a RTP/SCS project shall ensure that porous pavement materials are utilized, where feasible, to allow for groundwater percolation. **W-1(e)** The sponsor of a RTP/SCS project that requires potable water service should coordinate with water supply system operators to ensure that the existing water supply systems have the capacity to handle the increase. If the current infrastructure servicing the project site is found to be inadequate, infrastructure improvements for the appropriate public service or utility should be provided by the project sponsor. In addition, wherever feasible, reclaimed water should be used for landscaping purposes instead of potable water.	Class I, *Significant and unavoidable.*
Impact W-2 Implementation of proposed transportation improvements and future projects facilitated by the land use scenario envisioned in the RTP/SCS could result in erosion and contaminants in runoff during construction and operations, which could degrade surface and ground water quality.	**W-2(a)** The sponsor of a RTP/SCS project should ensure that fertilizer/pesticide application plans for any new right-of-way landscaping are prepared to minimize deep percolation of contaminants. The plans shall specify the use of products that are safe for use in and around aquatic environments. **W-2(b)** The sponsor of a RTP/SCS widening or roadway extension project shall ensure that the improvement directs runoff into subsurface percolation basins and traps which would allow for the removal of urban pollutants, fertilizers, pesticides, and other chemicals. **W-2(c)** For a RTP/SCS project that would disturb at least one acre, a SWPPP shall be developed prior to the initiation of grading and implemented for all construction activity on the project site. The SWPPP shall include specific BMPs to control the discharge of material from the site and into the creeks and local storm drains. BMP methods may include, but would not be limited to, the use of temporary retention basins, straw bales, sand bagging, mulching, erosion control blankets and soil stabilizers.	Class I, *Significant and unavoidable.*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
Impact W-3 Implementation of proposed transportation improvements and future development projects facilitated by the land use scenario envisioned in the RTP/SCS could be subject to flood hazards due to storm events and/or dam failure.	**W-3** If a RTP/SCS project is located in an area with high flooding potential due to a storm event or dam inundation, the project sponsor should ensure that the structure is elevated at least one foot above the 100-year flood zone elevation and that bank stabilization and erosion control measures are implemented along creek crossings**.**	Class I, *Significant and unavoidable.*
LAND USE		
Impact LU-1 Implementation of proposed transportation improvements and the land use scenario envisioned by theRTP/SCS could result in land use conflicts with existing sensitive land uses.	Mitigation measures listed under Impact AQ-1 and AQ-3 in Section 4.3, *Air Quality,* would reduce localized air quality impacts. Mitigation measures listed under Impact N-1, in Section 4.12, *Noise,* would reduce potential noise impacts. No mitigation is required for impacts related to dividing established communities.	Class III, *Less than significant.*
Impact LU-2 The RTP/SCS would be consistent with applicable adopted state and local goals, policies and regulations.	None required.	Class III, *Less than significant.*
Impact LU-3 Implementation of proposed transportation improvements and the land use scenario envisioned by the RTP/SCS could temporarily and permanently displace or disrupt existing residences and businesses	**LU-3(a)** The project sponsor of RTP/SCS projects with the potential to displace residences or businesses should assure that project-specific environmental reviews consider alternative alignments and developments that avoid or minimize impacts to nearby residences and businesses. **LU-3(b)** Where project-specific reviews identify displacement or relocation impacts that are unavoidable, the project sponsor should ensure that all applicable local, state, and federal relocation programs are used to assist eligible persons to relocate. In addition, the local jurisdiction shall review the proposed construction schedules to ensure that adequate time is provided to allow affected businesses to find and relocate to other sites. **LU-3(c)** For all Valley Vision Stanislaus Plan projects that could result in temporary lane closures or access blockage during construction, a temporary access plan should be implemented to ensure continued access to affected cyclists, businesses, and homes. Appropriate signs and safe access shall be guaranteed during project construction to ensure that businesses remain open.	Class I, *Significant and unavoidable.*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
Impact LU-4 Implementation of proposed transportation improvements and the land use scenario envisioned by the RTP/SCS could redistribute residential and commercial development; however, RTP/SCS projects that are included in local General Plans would not significantly induce growth beyond that already anticipated, as the primary purpose of proposed improvements is to accommodate projected growth.	No mitigation measures are required.	Class III, *Less than significant.*
NOISE		
Impact N-1 Construction activity associated with transportation improvement projects, and development envisioned by the RTP/SCS would create temporary noise and vibration level increases in discrete locations throughout the County.	**N-1(a)** Project sponsors of RTP/SCS projects should ensure that, where residences or other noise sensitive uses are located within 800 feet of construction sites, appropriate measures shall be implemented to ensure consistency with local general plan noise element policies and ordinance requirements relating to construction. Specific techniques may include, but are not limited to, restrictions on construction timing, use of sound blankets on construction equipment, and the use of temporary walls and noise barriers to block and deflect noise. **N-1(b)** If a particular project within 800 feet of sensitive receptors requires pile driving, the local jurisdiction in which this project is located should require the use of pile drilling techniques instead, where feasible. This shall be accomplished through the placement of conditions on the project during its individual environmental review. **N-1 (c)** Project sponsors should ensure that equipment and trucks used for project construction utilize the best available noise control techniques (including mufflers, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds). **N-1(d)** Project sponsors should ensure that impact equipment (e.g., jack hammers, pavement breakers, and rock drills) used for project construction be hydraulically or electrical powered wherever feasible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatically powered tools is unavoidable, use of an exhaust muffler on the compressed air exhaust can lower noise levels from the exhaust by up to about 10 dBA. When feasible, external jackets on the impact equipment can achieve a reduction of 5 dBA. Whenever feasible, use quieter procedures, such as drilling rather than impact equipment operation.	Class I, *Significant and unavoidable.*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	N-1(e) Locate stationary noise sources as far from sensitive receptors as possible. Stationary noise sources that must be located near existing receptors will be adequately muffled.	
Impact N-2 Implementation of the RTP/SCS would increase traffic-generated noise levels on highways and roadways which could expose sensitive receptors to noise in excess of normally acceptable levels.	**N-2(a)** Sponsor agencies of RTP/SCS projects should complete detailed noise assessments using applicable guidelines (e.g., Federal Transit Administration Transit Noise and Vibration Impact Assessment for rail and bus projects and the California Department of Transportation Traffic Noise Analysis Protocol for roadway projects). The project sponsor shall ensure that a noise survey is conducted to determine potential alternate alignments which allow greater distance from, or greater buffering of, noise-sensitive areas. The noise survey shall be sufficient to indicate existing and projected noise levels, to determine the amount of attenuation needed to reduce potential noise impacts to applicable State and local standards. This shall be accomplished during the project's individual environmental review. **N-2(b)** Where new or expanded roadways, rail, or transit are found to expose receptors to noise exceeding normally acceptable levels, the project sponsor shall consider various sound attenuation techniques. The preferred methods for mitigating noise impacts will be the use of appropriate setbacks and sound attenuating building design, including retrofit of existing structures with sound attenuating building materials where feasible. In instances where use of these techniques is not feasible, the use of sound barriers (earthen berms, sound walls, or some combination of the two) will be considered. Long expanses of walls or fences should be interrupted with offsets and provided with accents to prevent monotony. Landscape pockets and pedestrian access through walls should be provided. Whenever possible, a combination of elements should be used, including solid fences, walls, and, landscaped berms. Determination of appropriate noise attenuation measures will be assessed on a case-by-case basis during a project's individual environmental review pursuant to the regulations of the applicable agency.	Class I, *Significant and unavoidable.*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
Impact N-3 The proposed RTP/SCS land use scenario would encourage infill and mixed use development, which may place sensitive receptors in areas with unacceptable noise levels.	**N-3** If a RTP/SCS project is located in an area with exterior ambient noise levels above local noise standards the project sponsor should ensure that a noise study is conducted to determine existing and projected noise levels and feasible attenuation measures needed to reduce potential noise impacts to such uses to an exterior and interior noise level below local standards. Such measures may include, but are not limited to: dual-paned windows, solid core exterior doors with perimeter weather stripping, air condition system so that windows and doors may remain closed, and situating exterior doors away from roads. This shall be accomplished during the project's individual environmental review.	Class I, *Significant and unavoidable.*
TRANSPORATION AND CIRCULATION		
Impact T-1 Implementation of the RTP/SCS would reduce total VMT and CVMT as defined by total and peak hour congested vehicle miles traveled, when compared to 2040 conditions without the RTP/SCS.	No mitigation measures are required for transportation operations.	Class III, *Less than significant.*
Impact T-2 The RTP/SCS would generally be consistent with applicable alternative transportation plans and policies.	No mitigation measures are required.	Class III, *Less than significant.*

PROJECT-SPECIFIC IMPACT SUMMARY

The proposed projects listed in Table 2-1 to Table 2-8 of Section 2.0 *Project Description*, could result in impacts to multiple issue areas discussed in this EIR. As discussed above, many of the impacts listed in Table ES-2 have been classified as "Significant and Unavoidable" because StanCOG cannot require implementing agencies to adopt mitigation. In most of these cases if mitigation were implemented, impacts would be less than significant. The discussion of project-specific impact summary below reflects impacts to issue areas if sponsor agencies were to implement suggested mitigation.

All projects that include a construction component could cause aesthetic and air quality impacts. (Impact AQ-1). Projects that include roadway, rail, and transit features and/or expansions would associate with Impacts AQ-2 and AQ-4. Projects located to nearby agricultural lands have the potential to impact agricultural resources, as described in Impacts AG-1 and AG-2. Projects requiring substantial ground disturbance in undisturbed areas have the potential to impact biological, cultural resources, geology/soils and hydrology/water quality. Projects located in urban infill or previously disturbed areas have a greater potential to impact historic built environment resources, as well as historic archaeological resources in older developed areas. The 2014 RTP/SCS is expected to improve access and mobility throughout Stanislaus County including to/from and within Environmental Justice communities. Individual projects could impact Environmental Justice communities, but would not necessarily do so disproportionately when compared to the overall population. Projects that require new

construction or landscaping may result in impacts to hydrology and water quality. All proposed projects listed in Section 2.0 *Project Description* would associate with Impacts LU-1, LU-2, LU-3, and LU-4. Some project types listed may create noise impacts that could result in noise or vibration impacts, such as auxiliary lane and rail projects.

Other issue areas are not anticipated to be impacted by the specific projects identified in the 2014 RTP/SCS. No specific projects have been identified that would result in significant or wasteful consumption of energy. All projects have the potential to result in GHG emissions; however, the 2014 RTP/SCS as a whole is designed to reduce per capita transportation-related GHG emissions in accordance with SB 375 and AB 32. Similarly, the projects that comprise the program are intended to improve traffic circulation rather than create adverse impacts and projects that are likely to have an adverse impact on traffic/transportation system would not be implemented.

Project-specific analyses would need to be conducted as appropriate and applicable as the individual projects are designed and implemented to determine the actual magnitude of impact for each issue area. Mitigation measures listed in Table ES-2 may apply to specific projects as impacts are identified.

APPENDIX G

Traffic Report

TRAFFIC IMPACT ANALYSIS

FOR

WHITMORE RANCH SPECIFIC PLAN

Ceres, CA

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March 16, 2018

0090-08

TRAFFIC IMPACT ANALYSIS FOR WHITMORE RANCH SPECIFIC PLAN

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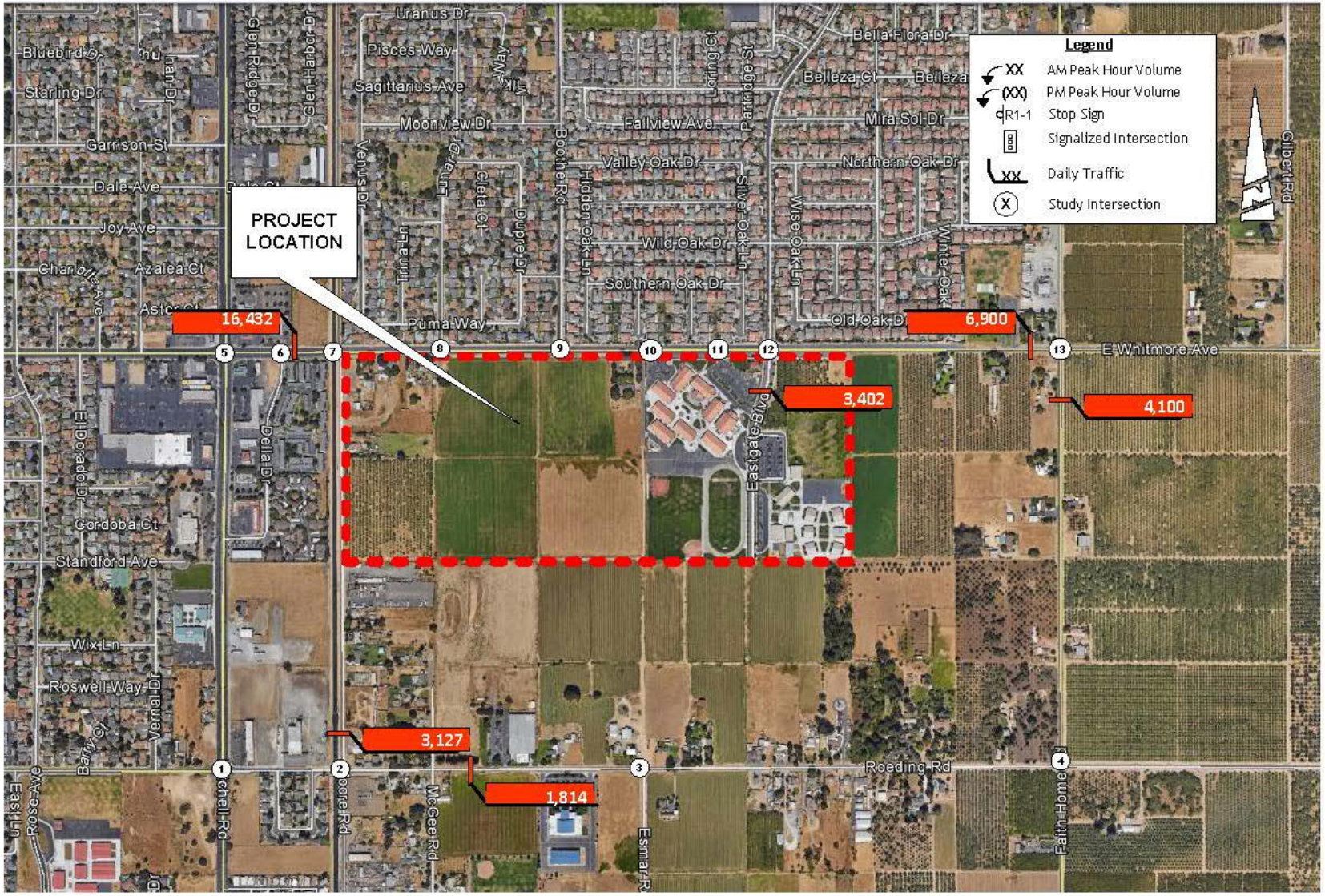
TRAFFIC IMPACT ANALYSIS FOR
WHITMORE RANCH SPECIFIC PLAN
Ceres, CA

INTRODUCTION

This report summarizes **KD Anderson & Associates** analysis of the potential traffic impacts associated with development of the **Whitmore Ranch Specific Plan (WRSP)** in Ceres, California. The WRSP will guide development of approximately 94 acres of residential and public uses on property that is located south of Whitmore Avenue between the TID Ceres Main Canal and La Rosa Elementary School. The project site is located regionally in Figure 1, and the land use plan is Figure 2.

The purpose of this analysis is to document current and future traffic conditions in the area of the WRSP and to identify the traffic impacts associated with development of the WRSP in a manner that is consistent with City of Ceres and CEQA guidelines. This report includes evaluation of existing circulation conditions in the area based on Levels of Service associated with current daily and a.m. / p.m. peak hour traffic volumes, and facilities for alternative transportation modes have also been identified. The extent to which circulation system improvements are already needed has been determined. The general characteristics of the proposed project have also been determined based on an analysis of the trip generation that may be associated with proposed land uses. WRSP trips were assigned to the study area street system, and resulting Levels of Service were compared to current conditions in order to identify the impacts of WRSP development alone. A short term future condition that assumes occupancy of other approved by unconstructed projects was identified, and project impacts were also evaluated within the context of this baseline. Cumulative traffic impacts were also evaluated assuming implementation of programmed circulation system improvements and continuing development under the pending Ceres General Plan Update. Mitigation measures that will be needed to address both project specific and cumulative impacts were identified.



VICINITY MAP AND STUDY INTERSECTION INDEX

KD Anderson & Associates, Inc.
Transportation Engineers

0090-08 RA 3/16/2018

figure 1

Source: AECOM 2016

LAND USE PLAN

figure 2

EXISTING SETTING

Existing Street System

Today regional access to Whitmore Ranch Specific Plan (WRSP) area is provided by State Route 99, by several City of Ceres arterial streets and by rural roads in the unincorporated area of Stanislaus County. State Route 99 connects the project with the Modesto urban area to the north and the Turlock area to the south. Today access to the state highway occurs at the Mitchell Road interchange south of the project site, at the El Camino Avenue ramps in downtown Ceres and at the Whitmore Avenue interchange to the west. Mitchell Road provides access to central Modesto north of the Tuolumne River. Roeding Road extends east of downtown Ceres through the project site. Other local and collector streets link the area with residential neighborhoods. Additional information regarding these facilities is presented in the text that follows.

State Highway 99 (SR 99) is the major north-south route serving Ceres and Stanislaus County as a whole. SR 99 extends through the Central Valley from a junction on Interstate 5 south of Bakersfield to the Red Bluff area of Tehama County.

In the immediate vicinity of the project SR 99 is a 6-lane controlled access freeway with access via four interchanges.

Caltrans compiles traffic count data for the state highway system and reports this information yearly. The most recent traffic counts available from Caltrans suggest that SR 99 carries an *Annual Average Daily Traffic (AADT)* volume of about 94,000 vehicles per day (2015) in the area north of the Mitchell Road interchange and 101,500 AADT to the south.

Future plans for the state highways in this area involve the development of an expanded Mitchell Road interchange that would provide improved access to southern Ceres. The City of Ceres has selected a preferred alternative for reconstructing the SR 99 / Mitchell Road interchange that will link Service Road directly with the state highway. As a part of the project, Mitchell Road would be widened from four to six travel lanes from SR 99 to Don Pedro and Service Road would be widened to six lanes between Moffett Road and Mitchell Road.

Whitmore Avenue is an east-west Arterial street in the Ceres General Plan Circulation Element. Whitmore Avenue originates at an intersection on Carpenter Road and extends easterly for about 14 miles across SR 99 along the project site to Hughson and rural Stanislaus County. In the area of the WRSP Whitmore Avenue is a two-lane facility that is being incrementally widened to four lanes as local development occurs. Two westbound travel lanes are already provided in the area of the project, and the posted speed limits is 45 mph. A 25 mph school zone exists in the vicinity of Cesar Chavez Jr. High School and La Rosa Elementary School.

Daily traffic counts completed for this traffic study in October 2016 indicated that the current daily traffic volume on Whitmore Avenue was 16,432 vehicles per day (vpd) east of the Mitchell Road intersection, with the volume dropping to 6,900 vpd just west of Faith Home Road. The highest volume occurs in the area between Moore Road and Boothe Road with 18,320 vehicles per day.

Mitchell Road is a north-south Arterial that extends north from an interchange on SR 99 through Ceres to the Tuolumne River crossing an intersection on State Route 132 in Modesto. In the area of the project Mitchell Road is a four-lane facility with a speed limit of 45 mph. Mitchell Road is to be widened to six lanes in the future. Traffic counts made for the GPU EIR indicated that Mitchell Road carried 38,168 vpd north of Whitmore Avenue, 34,986 vpd between Whitmore Avenue and Roeding Road and 36,106 vpd south of Roeding Road.

Roeding Road is an east-west Primary Collector street that extends easterly from 6th Street near the SR 99 El Camino Avenue ramps across Mitchell Road past the project site to its eastern terminus on Tully Road south of Hughson. In the area of the project Roeding Road is a two-lane rural facility with a prima facie speed limit of 55 mph. Traffic counts conducted for this traffic study in October 2016 indicated that Roeding Road carried 1,814 vpd in the area of the project east of Moore Road.

Faith Home Road is a north-south street serving eastern Ceres and rural Stanislaus County. Faith Home Road extends south from an intersection on Hatch Road near the Tuolumne River to an interchange on SR 99 before continuing to Merced County. Faith Home Road is designated an expressway in the Ceres General Plan Circulation Element, but today Faith Home Road is a rural two-lane road, and the prima facie speed limit is 55 mph. Traffic counts conducted for the GPU EIR indicated that the road carries 4,100 vpd in the area of the project.

Esmar Road and **Boothe Road** are designated Primary Collector streets in the City of Ceres General Plan Circulation Element. Today Boothe Road extends as a two-lane road from an intersection on Hatch Road south to Whitmore Avenue. Based on the peak hour traffic volumes observed today the daily traffic volume on Boothe Road is estimated to be 4,600 vehicles per day. Today Esmar Road originates at an intersection on Roeding Road and continues southerly as a two-lane rural road to an intersection on Rohde Road near SR 99. The Circulation Element indicated that these two roads will be linked via a new road constructed from Whitmore Avenue to Roeding Road across the project site.

Eastgate Boulevard is a north-south two-lane secondary collector street that traverses the neighborhood north of the proposed project and extends south of Whitmore Avenue to provide access to the Ceres Unified School District's La Rosa Elementary School and Cesar Chavez Junior High School. Ultimately the road will continue to Roeding Road. Traffic counts conducted for this analysis indicated that Eastgate Blvd carried 3,402 vehicles per day south of Whitmore Avenue.

Study Area intersections

The text which follows describes the configuration and controls of study area intersections.

The **Mitchell Road / Roeding Road intersection** is controlled by a traffic signal. The Roeding Road approaches are each single lanes, and the intersection operates with "permitted" phasing on these legs. The City has recently awarded a contract for an improvement project that will widen Roeding Road to provide separate left turn lanes on each approach and provide protected turn phasing. Separate left turn lanes are available on the Whitmore Avenue approaches. With the improvement project there will be sidewalks and handicap ramps on each corner and crosswalks

at this intersection.

The **Roeding Road / Moore Road intersection** is located immediately east of the TID Canal and is controlled by an all-way stop. Each approach has a single travel lane. The presence of the canal limits the size of curb returns on the western corners (i.e., 15 feet). The Class I Bike path along the canal ends at Roeding Road, but there are no crosswalks or sidewalks at the intersection. Another construction phase to extend Class I Bike path from Roeding Road to Service Road began in December 2017.

The **Roeding Road / Esmar Road intersection** is a "tee" controlled by a stop sign on the northbound Esmar Road approach. Each approach is a single travel lane. There are no sidewalks or crosswalks at this rural intersection.

The **Roeding Road / Faith Home Road intersection** is controlled by an all-way stop. Each approach is a single lane, but wide curb returns capable of accommodating truck traffic have been installed. There are no sidewalks or crosswalks at this rural intersection.

The **Mitchell Road / Whitmore Avenue intersection** is controlled by a traffic signal. Both streets have two through travel lanes in each direction, as well as separate left turn lanes. Separate right turn lanes are provided on the Mitchell Road approaches. Sidewalk exists on each corner with handicap ramps, and a crosswalk exists on each leg of the intersection. Each corner of the intersection has been developed.

The **Whitmore Avenue / Della Drive intersection** provides access to retail uses adjoining the Whitmore Avenue corridor. The intersection is controlled by a stop sign on the northbound Della Drive approach, and the northern leg is a driveway serving a local retail use. Westbound Whitmore Avenue has two travel lanes and a separate left turn lane. The eastbound approach has two through lanes but the roadway transitions to a single eastbound lane in the area east of the intersection. A Two-Way Left-Turn lane is striped west of the intersection. Sidewalks are present on both sides of the intersection, but there are no crosswalks.

The **Whitmore Avenue / Moore Road intersection** is located immediately east of the TID canal. This "tee" intersection is controlled by a stop sign on the northbound Moore Road approach. There are two through lanes on westbound Whitmore Avenue and a single eastbound lane is available. Whitmore Avenue west of the intersection has been widened to its full four-lane width across the canal, but the east side of the intersection has not. The route of the TID Canal Trail crosses Whitmore Avenue at a marked crosswalk that is immediately adjacent to Moore Road, and the limit line on the northbound approach extends into the intersection. As a result the space available for westbound left turns onto southbound Moore Road is very limited. An appreciable number of westbound left turns occur during peak hours as Moore Road is used as an alternative north-south route in the area between Mitchell Road and Faith Home Road.

The **Whitmore Avenue / Lunar Drive intersection** is a "tee" controlled by a stop sign on the southbound Lunar Drive approach. A separate eastbound left turn lane is provided on Whitmore Avenue, and there are two westbound travel lanes. The Lunar Drive approach is a single lane. There are sidewalks on the north side of the intersection but no crosswalks.

The **Whitmore Avenue / Boothe Road intersection** is a "tee" controlled by a stop sign on the southbound approach. A separate eastbound left turn lane is provided on Whitmore Avenue, and there are two westbound travel lanes. The Boothe Road approach is a single lane. There are sidewalks on the north side of the intersection but no crosswalks.

The **Whitmore Avenue / Eastgate Blvd intersection** is controlled by a traffic signal. The Whitmore Avenue and northbound Eastgate Blvd approaches have separate left turn lanes. The eastbound approach has been widened to facilitate right turns, but a full turn lane is not provided. Sidewalk and handicap ramps exist on each corner, and each leg has crosswalks.

The **Whitmore Avenue / Faith Home Road intersection** is controlled by an all-way stop. Each approach is a single lane, but wide curb returns capable of accommodating truck traffic have been installed. There are no sidewalks or crosswalks at this rural intersection.

Existing Traffic Volumes

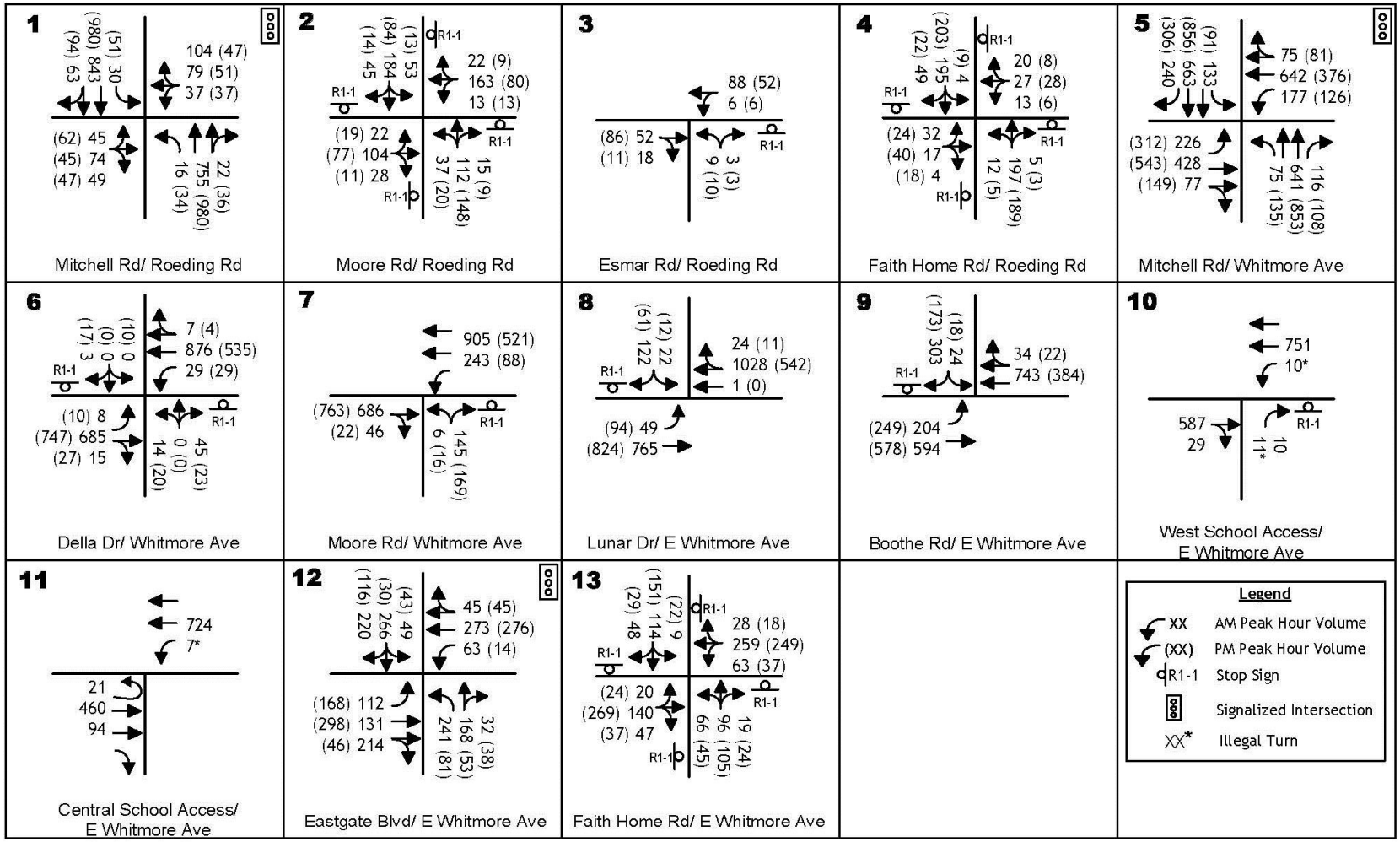
To quantify existing traffic conditions, a base of current peak hour traffic volume information was assembled from review of other recent traffic studies and new traffic counts completed by the consultant. New traffic counts were made at most locations in October 2016 when area schools were in session. Data for the Whitmore Avenue / Mitchell Road and Roeding Road / Mitchell Road intersections was obtained from the City's General Plan Update. The study intersections were noted in Figure 1, and applicable a.m. and p.m. peak hour traffic counts are summarized in Figure 3. Current information regarding the number of lanes and traffic control devices are also presented in that Figure 3.

Level of Service Calculation

To quantitatively evaluate traffic conditions and to provide a basis for comparison of operating conditions with and without project generated traffic, Levels of Service were determined at study area intersections and roadway segments.

"Level of Service" (LOS) is a quantitative measure of traffic operating conditions whereby a letter grade "A" through "F" is assigned to an intersection. LOS "A" through "F" represents progressively worsening traffic conditions. The characteristics associated with the various LOS for intersections are presented in Table 1. The City of Ceres has identified LOS C as the minimum standard for secondary collectors and local streets and has established LOS "D" as the minimum standard for major roadways such as primary collectors, arterials, expressways and freeways.

Intersection Levels of Service. Levels of Service were calculated for this study using the methodology contained in the 2010 Highway Capacity Manual (HCM) using Synchro software. The overall Level of Service for intersections was determined based on the average length of delays for all motorists at signalized intersections and all-way stop controlled intersections. At un-signalized intersections controlled by side-street stop signs the reported Level of Service is that associated with the "worst case".



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EXISTING TRAFFIC VOLUMES AND LANE CONFIGURATIONS

figure 3

TABLE 1
LEVEL OF SERVICE DEFINITIONS

Level of Service	Signalized Intersection	Unsignalized Intersection	Roadway (Daily)
"A"	Uncongested operations, all queues clear in a single-signal cycle. Delay ≤ 10.0 sec	Little or no delay. Delay ≤ 10 sec/veh	Completely free flow.
"B"	Uncongested operations, all queues clear in a single cycle. Delay > 10.0 sec and ≤ 20.0 sec	Short traffic delays. Delay > 10 sec/veh and ≤ 15 sec/veh	Free flow, presence of other vehicles noticeable.
"C"	Light congestion, occasional backups on critical approaches. Delay > 20.0 sec and ≤ 35.0 sec	Average traffic delays. Delay > 15 sec/veh and ≤ 25 sec/veh	Ability to maneuver and select operating speed affected.
"D"	Significant congestions of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. Delay > 35.0 sec and ≤ 55.0 sec	Long traffic delays. Delay > 25 sec/veh and ≤ 35 sec/veh	Unstable flow, speeds and ability to maneuver restricted.
"E"	Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es). Delay > 55.0 sec and ≤ 80.0 sec	Very long traffic delays, failure, extreme congestion. Delay > 35 sec/veh and ≤ 50 sec/veh	At or near capacity, flow quite unstable.
"F"	Total breakdown, stop-and-go operation. Delay > 80.0 sec	Intersection blocked by external causes. Delay > 50 sec/veh	Forced flow, breakdown.
Sources: 2000 Highway Capacity Manual.			

Roadway Segment Levels of Service. The Level of Service on individual roadway segments was determined based on daily traffic volume thresholds identified in the City of Ceres General Plan Update Existing Conditions report and presented in Table 2.

TABLE 2
ROADWAY SEGMENT LEVEL OF SERVICE THRESHOLDS

Type of Roadway	Daily Capacity Per Lane	Lanes	Level of Service / V/C				
			A	B	C	D	E
			<0.60	<0.70	<0.80	<0.90	<1.00
Expressway	15,630						
Principal Arterial	10,625	6	38,850	45,325	51,800	58,275	64,750
Minor Arterial	9,380	4	22,350	26,075	29,800	33,525	37,250
Minor Arterial with TWLT Lane	10,000	2	12,000	14,000	16,000	18,000	20,000
Major Collector	8,750	4	21,000	24,500	28,000	31,500	35,000
Major Collector with TWLT Lane	9,380	2	11,255	13,130	15,010	16,885	18,760
Minor Collector / Local	6,250	2	7,500	8,750	10,000	11,250	12,500
			<0.05	<0.15	<0.25	<0.45	<1.00
Rural Road	11,250		1,125	3,375	5,625	10,125	22,500

Current Traffic Conditions / Levels of Service

Intersection Level of Service. Current a.m. and p.m. peak hour Levels of Service were calculated at existing study intersections (Refer to Appendix for calculation worksheets) under "Existing" conditions, and the results are presented in Table 3. In each case the observed Peak Hour Factor (PHF) has been employed to describe conditions occurring during the peak 15 minute within each hour.

As shown, with a few exceptions all study area intersections operate with Levels of Service that satisfy minimum City of Ceres standards.

The northbound approach at the **Whitmore Avenue / Moore Road intersection** operates at LOS E in the a.m. peak hour.

The southbound approach at the **Whitmore Avenue / Boothe Road intersection** operates at LOS F in the a.m. peak hour.

TABLE 3
EXISTING INTERSECTION LEVELS OF SERVICE

Intersection	Control	AM Peak Hour		PM Peak Hour		Signal Warrants Met?
		Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	
Mitchell Road / Roeding Road	Signal	13.3	B	12.5	B	n.a.
Moore Road / Roeding Road	All-Way Stop	15.2	B	9.3	A	No
Esmar Road / Roeding Road Northbound Approach	NB Stop	9.5	A	9.4	A	No
Faith Home Road / Roeding Road	All-Way Stop	9.9	A	9.2	A	No
Mitchell Road / Whitmore Avenue	Signal	42.5	D	38.5	D	n.a.
Della Drive / Whitmore Avenue Northbound Approach Southbound Approach	NB/SB Stop	19.7 12.4	C B	18.8 16.1	C C	No
Moore Road / Whitmore Avenue Northbound Approach	NB Stop	**38.0**	**E**	33.5	D	Yes[1]
Lunar Drive / Whitmore Avenue Southbound Approach	SB Stop	29.0	D	14.6	B	Yes[1]
Boothe Road / Whitmore Avenue Southbound Approach	SB Stop	**258.8**	**F**	21.1	C	Yes
Eastgate Blvd / Whitmore Avenue	Signal	36.9	D	18.1	B	n.a.
Faith Home Road / Whitmore Avenue	All-Way Stop	15.0	B	17.1	C	No

Bold values exceed the minimum LOS standard.

(1) Although peak hour Traffic Signal Warrants may be met for these intersections, other improvements as further described in this report will result in conditions that will not require installation of a new traffic signal.

The WRSP adjoins Cesar Chavez Jr. High School and La Rosa Elementary School, and these facilities attract appreciable vehicular traffic during the periods immediately before and after the end of the school day. As is typically the case with schools, congestion created by on-site drop-off and loading activities can extend back onto the adjoining public streets. Thus traffic flow may be indicative of conditions that are poorer than would be suggested by Level of Service Analysis predicated on traffic volumes and intersection capacity. Alternatively, the congestion created by school is short term in nature and typically lasts for about 15 minutes.

Traffic Signal Warrants. The extent to which current traffic conditions at un-signalized intersection might justify a traffic signal was evaluated based on the warrants contained in the Manual of Uniform Traffic Control Devices. As noted in Table 3 the volume of traffic occurring at three intersections on Whitmore Avenue satisfy peak hour warrants. However, traffic

engineers often find that traffic signals are not the preferred control when the majority of approach traffic turns right, as is the case with the existing traffic on northbound Moore Road, southbound Lunar Drive and southbound Boothe Road. The applicable traffic control strategy is discussed later in this report to address WRSP impacts.

Roadway Segment Levels of Service based on Daily Traffic Volumes. The daily traffic volumes observed on study area roads are noted in Table 4. As indicated, with one exception the study area street system carries traffic volumes that satisfy the City of Ceres' minimum LOS D standard. The exception is the segment of Whitmore Avenue from Moore Road easterly to Cesar Chavez Jr. High School along the WRSP frontage where only one eastbound lane is available. This segment operates at LOS E, which exceeds the City's LOS D minimum.

The City is pursuing a Safe Routes to School program to widen Whitmore Avenue between Moore Road and Cesar Chavez Jr High School to provide improved pedestrian and bicycle facilities. That work would also provide four lanes on Whitmore Avenue in the area of existing homes.

TABLE 4
CURRENT ROADWAY SEGMENT LEVEL OF SERVICE
BASED ON DAILY TRAFFIC VOLUME

Roadway	Location	Classification	Lanes	Daily Volume	Level of Service
Whitmore Avenue	Mitchell Rd to Della Dr	Arterial	4	16,432	A
	Della Dr to Moore Rd	Arterial	2+	16,432	D
	Moore Rd to Boothe Rd	Arterial	2+	**18,320**	**E**
	Boothe Rd to Eastgate Blvd	Arterial	2+	13,600	B
	Eastgate to Faith Home Rd	Arterial	2	6,900	A
Faith Home Road	Whitmore Ave to Roeding Rd	Rural Road	2	4,100	C
Eastgate Blvd	South of Whitmore Ave	Secondary Collector	2	3,402	A
Moore Road	Whitmore Ave to Roeding Rd	Local	2	3,127	A
Roeding Road	Moore Rd to Faith Home Rd	Collector	2	1,814	A
Bold values exceed the minimum LOS standard.					

Traffic Safety Deficiencies. The extent to which the existing layout of the study area circulation system presents operational or safety deficiencies has been considered based on consistency with current City of Ceres roadway design standards. Because the study area is transitioning from rural Stanislaus County roads to urban city streets, many segments do not meet urban standards for lane width, curb & gutter and sidewalk etc. These deficiencies alone do not necessarily create safety or operational problems, and rural roads can safely accommodate moderate traffic volumes.

Within the study area the most noteworthy deficiency occurs at the Whitmore Avenue / Moore Road intersection near the TID Main Canal. The route of the TID Canal Trail crosses Whitmore Avenue at a marked crosswalk that is immediately adjacent to Moore Road, and the limit line on the northbound approach extends into the intersection. As a result the space available for westbound left turns onto southbound Moore Road is very limited, and when northbound traffic is waiting to turn left the southbound movement must typically be made at slow speed. An appreciable number of westbound left turns occur during peak hours as Moore Road is used as an alternative north-south route in the area between Mitchell Road and Faith Home Road.

Intersection design is similarly a constraint at the Moore Road / Roeding Road intersection since the canal is very close to the intersection. However, while the intersection is narrow current traffic volumes at this all-way stop controlled location do not create the issues existing on Whitmore Avenue.

Pedestrian / Bicycle Facilities

Although pedestrian and bicycle facilities do not exist along the WRSP frontage, sidewalks and bicycle lanes have been constructed as eastern Ceres has been developed. Sidewalk exists on the north side of Whitmore Avenue from the Mitchell Road intersection to a point midway between Eastgate Blvd and Faith Home Road. Sidewalk exists on the south side of the street in the immediate vicinity of the two CUSD schools and in the area between Mitchell Road and Moore Road. Sidewalks are also available on Eastgate Blvd and on the other streets serving the Eastgate Community north of Whitmore Avenue opposite the WRSP site.

Today school age pedestrians walk along the south side of Whitmore Avenue where no sidewalks exist on their way to Cesar Chavez Jr. High School and La Rosa Elementary School. The potential exists for conflicts between motor vehicles, bicycles and pedestrians in this area where paved shoulder and dirt path are available. The City of Ceres was awarded a Safe Routes to School Program to develop improvements in this area, with anticipated construction in the summer of 2018.

Bicycle facilities have been installed at many locations in Ceres and are planned for expansion as the community is developed. The 2013 StanCOG Non-Motorized Transportation Master Plan guides bicycle planning in this area.

Chapter 1000 of the Caltrans *Highway Design Manual* defines three classes of bicycle facilities and details the minimum requirements for those facility types:

- Class 1 Bicycle Paths - a paved right of way completely separated from any street or highway.
- Class 2 Bicycle Lanes - a striped and stenciled lane for one-way travel on a street or highway.
- Class 3 Bicycle Routes - a typical roadway identified as a preferred bicycle route with signage. They may also include shared use lane markings, “SHARE THE ROAD” signage, or wide shoulders.

In the StanCOG Plan, a Class 3.5 bicycle route designation is also used. Class 3.5 facilities indicate a Class 3 bicycle route, as defined by Caltrans, with wide shoulders, typically four to eight feet in width. Class 3 Share the Lane indicates Class 3 bicycle routes, as defined by Caltrans, with "SHARE THE ROAD" signage, typically on narrow, rural roadways.

In the area of the WRSP a Class 1 Bike Path exists along the TID Main Canal adjoining the WRSP. This path links Hatch Road on the north with the southern City limits and current construction will extend the path to Service Road.

Class 2 Bike Lanes exist on Boothe Road north of Whitmore Avenue and on Whitmore Avenue west of Moore Road. The StanCOG plan indicates that Class 2 bike lanes should be developed on Eastgate Blvd north of Whitmore Avenue and on Whitmore Avenue east of Moore Road to Faith Home Road.

Transit Facilities

The Ceres area is served by various transit providers. Stanislaus Regional Transit (StaRT), Ceres Dial-A-Ride (CDAR), Ceres Area Transit (CAT), and Modesto Area Express (MAX) provide bus service in Ceres. The agencies have bike-rack equipped bus fleets. Dial-A-Ride services are provided on a first-come, first-served basis.

City of Ceres fixed route service "CAT" is designed to meet various transit needs of the community. The CAT route covers most of the City from 6:15 a.m. to 6:10 p.m. and runs along a designated route that extends towards the WRSP as far as the Whitmore Avenue / Mitchell Road intersection.

Ceres Dial-A-Ride is an on-demand, shared ride public transportation system available to all members of the public. The WRSP is included in its service area.

Stanislaus Regional Transit (StaRT) programs also connect to Ceres. The developed areas of Ceres are accessed by fixed route service (Route 10 Express and Route 15). Route 15 reaches the corner of Whitmore Avenue / Mitchell Road.

The WRSP is also within the coverage area for Stanislaus Regional Transit's **Turlock – Modesto Runabout.** Runabouts are a transit service that combines designated fixed stops (like a fixed route) and curb-to-curb service (like a dial-a-ride). Passengers can catch the service at the designated fixed stops without having to phone ahead and book a ride. However, those passengers can only be dropped off at other designated fixed stops. For those passengers that want curb-to-curb service, it is necessary to call ahead and book a ride.

The City of Ceres Public facilities fee program includes the cost of bus pull-outs at the Whitmore Avenue / Boothe Road intersection.

PROJECT CHARACTERISTICS

Trip Generation

The amount of traffic generated by development of the WRSP has been estimated based on the trip generation characteristics of planned uses. Table 5 presents the trip generation rates employed for this analysis. Rates for residential uses were drawn from the *Institute of Transportation Engineers (ITE)* publication *Trip Generation, 9th Edition.*

TABLE 5
TRIP GENERATION RATES

Land Use	Unit	Trip Per Unit						
		Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Single Family Residential	Dwelling	9.52	0.19	0.56	0.75	0.63	0.37	1.00
Multiple Family Residential	Dwelling	6.65	0.10	0.41	0.51	0.40	0.22	0.62
Parks	Acre	1.89	0.10	0.00	0.10	0.10	0.10	0.20
Middle/Junior High School	Student	1.62	0.30	0.24	0.54	0.08	0.08	0.16
Elementary School	Student	1.29	0.25	0.20	0.45	0.07	0.08	0.15

As shown in Table 6, new development of the WRSP could result in about 3,749 daily vehicle trips. During peak traffic hours the WRSP area may generate 294 a.m. peak hour trips and 382 p.m. peak hour trips.

The two existing schools located at the eastern end of the WRSP already generate trips that are part of the background traffic counts on study area roads. Based on ITE rates, these schools could be expected to be generating roughly 1,878 daily trips (½ inbound and ½ outbound) with 646 trips in the a.m. peak hour and 202 trips in the p.m. peak hour. However, Eastgate Blvd is the primary access to the schools, and that street carries 3,402 daily trips, with 984 trips in the a.m. peak hour and 262 trips in the p.m. peak hour. Adding in the traffic volumes observed at the school access, the two schools appear to be generating about 3,960 daily trips and 1,145 a.m. peak hour trips.

TABLE 6
WHITMORE RANCH SPECIFIC PLAN TRIP GENERATION

Land Use	Quantity	Trips						
		Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
New Development								
SF Residential (LDR)	196 du's	1,866	37	110	147	123	73	196
SF Residential (MDR)	85 du's	809	16	48	64	54	31	85
MF Residential (HDR)	160 du's	1,064	16	66	82	64	35	99
Parks/ Open Space	5.2 acres	10	1	0	1	1	1	2
New Development Subtotal		3,749	70	224	294	242	140	382
Existing Development								
Junior High School	657 students	1,064	197	158	355	52	53	105
Elementary School	646 students	814	162	129	291	45	52	97
ITE Existing Development Subtotal		1,878	359	287	646	97	105	202
Observed Existing Development		3,960	683	462	1,145			

Planned Improvements

Consistent with City policy development in the WRSP will be required to install frontage improvements as development occurs. This will include widening of Whitmore Avenue to its ultimate 4-lane section from Moore Road to Cesar Chavez Jr. High School. The WRSP internal street system will be constructed, including extensions of Lunar Drive and Boothe Road south of Whitmore Avenue. A new local street will be constructed along the eastern limit of the new residential area abutting Cesar Chavez Jr. High School, and this road will use the existing western school access on Whitmore Avenue. Internal streets will also connect to Moore Road, and Moore Road will be improved as part of the project. Development in the WRSP will be accompanied by portions of a new east-west secondary collector street (Stanford Avenue) that will connect to Moore Road, and an extension of Stanford Avenue from the project to Eastgate Blvd along the south end of Cesar Chavez Jr. High School is included in WRSP's improvements.

Trip Distribution and Assignment

Distribution. The regional distribution of the new trips generated by the WRSP will reflect the project's location on the east end of the urbanized Ceres area. The distribution of project trips has been determined from review of existing local traffic patterns as well as consideration of traffic patterns suggested by the City of Ceres General Plan Update traffic model. The

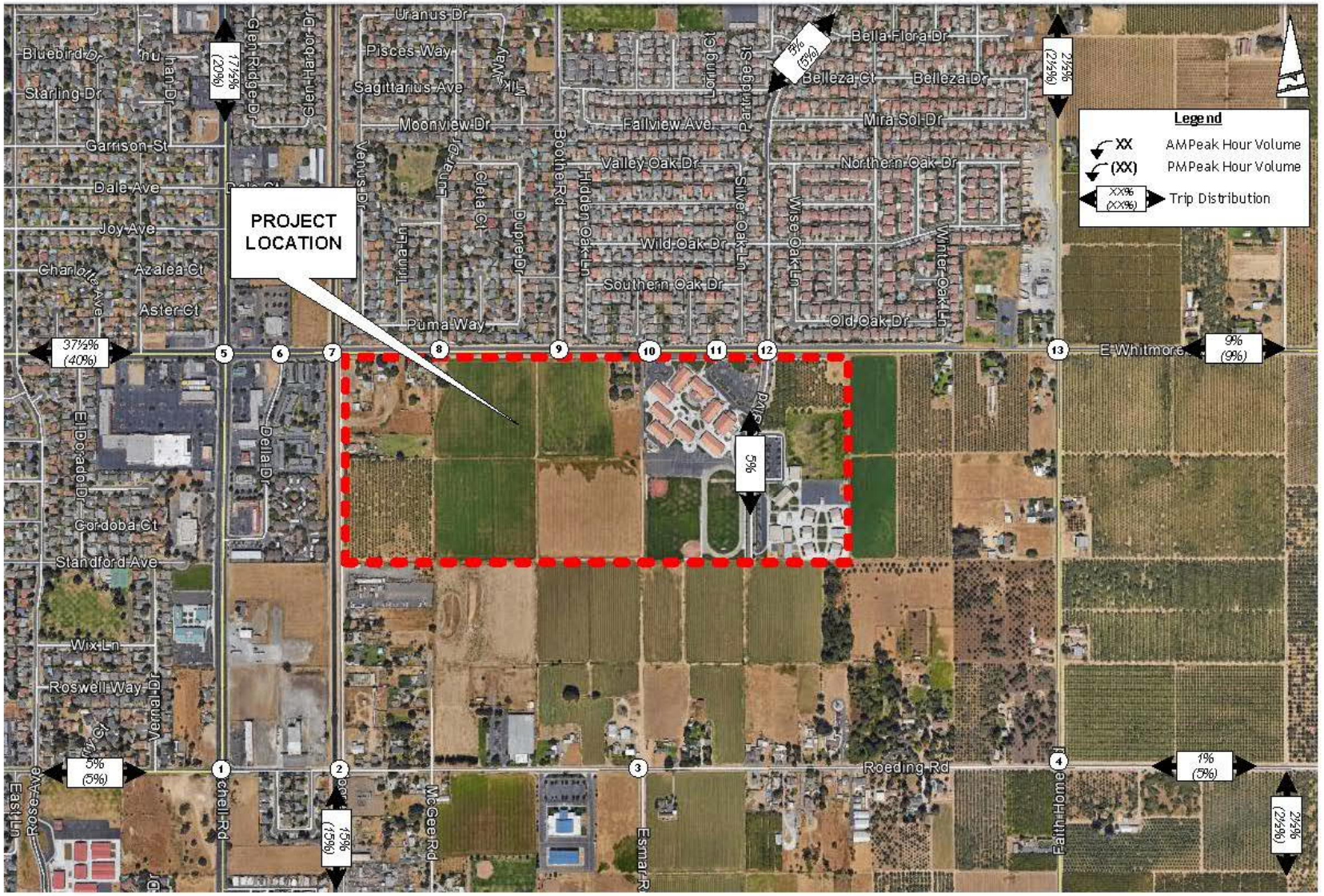
distribution pattern identified in the school's EIR was assumed. Figure 4 and Table 7 present the assumed distribution of project trips under "Existing plus Project" conditions.

The relationship between new residential development and adjoining schools has been considered in developing the a.m. peak hour distribution assumptions. Because the WRSP provides ample connections to the schools, it is anticipated that most school age children will be able to walk or ride bicycles to La Rosa Elementary School and Cesar Chavez Jr. High School. However, some parents are still likely to drive onto the school campuses to drop-off or load students.

TABLE 7
TRIP DISTRIBUTION ASSUMPTIONS

Direction	Route	Percentage of Trips	
		AM Peak Hour	PM Peak Hour
North	Mitchell Road beyond Whitmore Avenue	17½%	20%
	Eastgate Blvd	5%	5%
	Faith Home Road	2½%	2½%
East	Whitmore Avenue beyond Faith Home Road	9%	9%
	Roeding Road beyond Faith Home Road	1%	1%
	Local Schools	5%	0%
South	Mitchell Road beyond Roeding Road	15%	15%
	Faith Home Road beyond Roeding Road	2½%	2½%
West	Whitmore Avenue beyond Mitchell Road	37½%	40%
	Roeding Road beyond Central Avenue	5%	5%
Total		100%	100%

Trip Assignment. Project trips were assigned to the local area street system under the distribution assumptions presented above and the access assumptions described previously based on the "least time path" available from various locations within the WRSP area. The resulting "project only" trip assignment for residentially generated traffic alone is presented in Figure 5.



PROJECT TRIP DISTRIBUTION

figure 4

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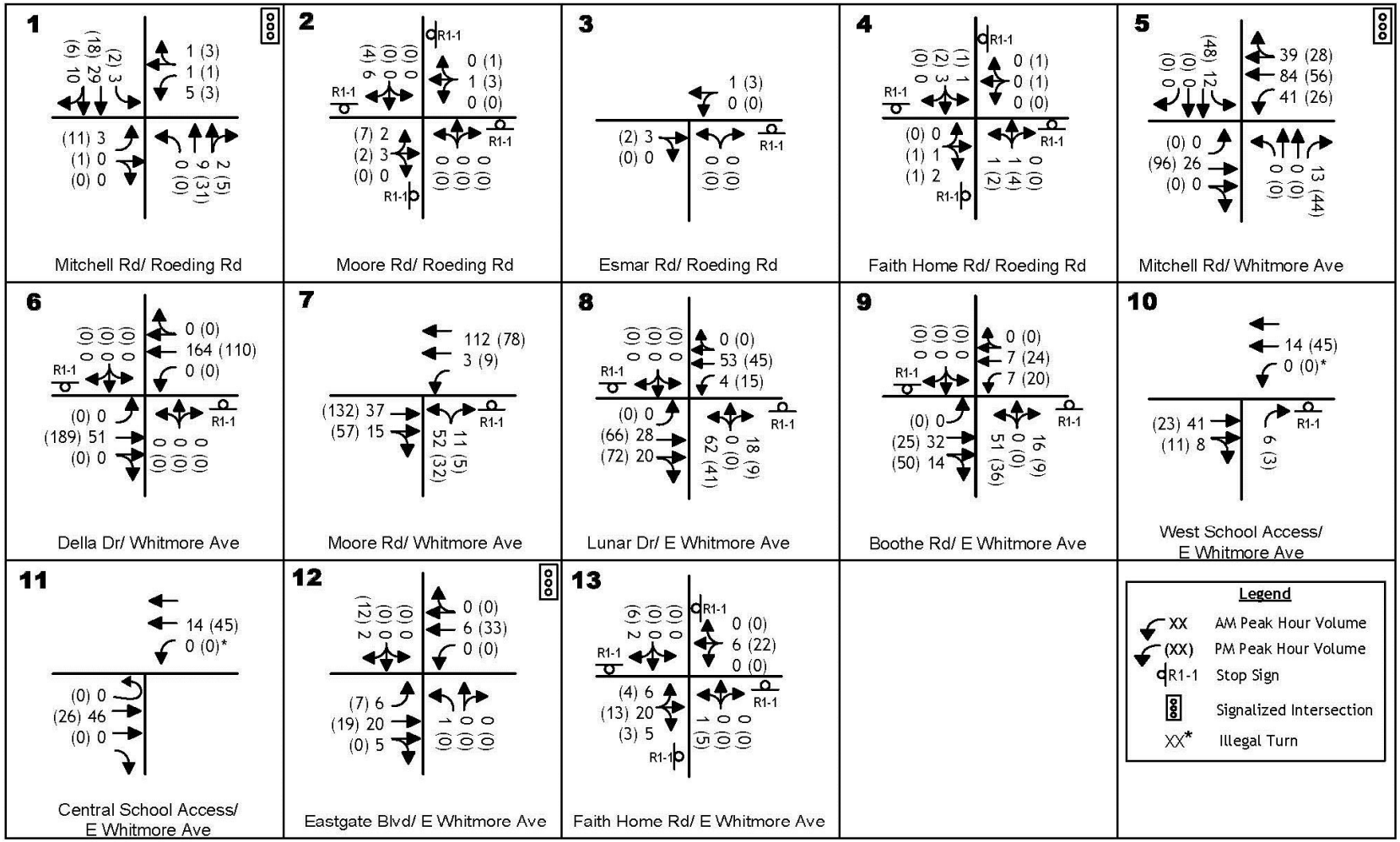

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PROJECT ONLY TRAFFIC VOLUMES AND LANE CONFIGURATIONS

figure 5

REGULATORY SETTING

City of Ceres General Plan

The City of Ceres General Plan identifies policies related to transportation and traffic standards.

City of Ceres Public Facility Fee (PFF)

The City of Ceres has adopted Public Facility Fees that will be applied to the proposed project. The current fees are based on the Public Facilities Fee Nexus Study, June 14, 2010, which includes costs for a variety of public facilities that are included in the fee. In the area of the proposed project the PFF includes these improvements:

TABLE 8
CERES TRANSPORTATION FEE (PFF) PROJECTS

Street	Location	Improvement
Mitchell Road	Hatch Road to Whitmore Avenue	Whitmore Avenue Traffic signal modification and limited widening to 6-lanes
Mitchell Road	Whitmore Avenue to Service Road	Widening to 6-lanes
Faith Home Road	Tuolumne River to Hatch Road	Widening to 4-lanes
Faith Home Road	Hatch Road to Whitmore Avenue	Widening to 4-lanes Traffic Signal at Whitmore Avenue
Faith Home Road	Whitmore Avenue to Service Road	Widening to 4-lanes Traffic Signal at Roeding Road
Whitmore Avenue	Central Avenue to Mitchell Road	Widening road – (completed)
Whitmore Avenue	Mitchell Road to Faith Home Road	Widening to 4-lanes along existing development Traffic signal at Boothe Road Bus Turnouts at Boothe Road
Public Facilities Fee Nexus Study for the City of Ceres, PMC, June 14, 2010		

City of Ceres Standards of Significance

The City of Ceres has determined that the proposed project would have a significant impact to transportation and traffic if the project would:

- Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or reduction in Level of Service), either during the plus project condition, or the cumulative plus project condition.

- Exceed, either individually or cumulatively, a Level of Service standard established by the City of Ceres or Caltrans for designated roads or highways.

Roadways/Signalized Intersections: The project is considered to have a significant effect if it would:

- Cause deterioration of a signalized intersection from LOC C for secondary collectors and local streets or LOS D for primary collectors, arterials, expressways and freeways (or better) to LOS E or LOS F, or an increase in the service volume of any approach by 5 percent or more for a signalized intersection operating at LOS E or LOS F under Baseline (Existing) Conditions, or an increase in average delay of 5 or more seconds for a signalized intersection operating at LOS E or LOS F under Baseline (No Project) conditions.

- Cause deterioration of a controlled movement at an un-signalized intersection from LOS D (or better) to LOS E or LOS F, or at intersections where a controlled movement already operates at LOS E or F, one of the following:

    1. Project traffic results in satisfaction at the peak hour volume traffic signal warrant;
    2. Project traffic increases minor movement delay by more than 30 seconds; or
    3. Where the peak hour signal warrant is met without the project traffic and delay cannot be estimated, project increases traffic by 10 or more vehicles per lane on the controlled approach during the peak hour.

- The project, or any project-related mitigation measures, disrupts existing transit services or facilities. This includes disruptions caused by proposed project driveways on transit streets, impacts to transit stops/shelters, and impacts to transit operations from traffic improvements proposed or resulting from the project.

- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

- Result in inadequate emergency access.

- Result in inadequate parking capacity.

- Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Stanislaus County General Plan

The study area includes portions of the Stanislaus County circulation system outside of the current City limits of Ceres but within the City's Sphere of Influence. County policies are noted in the text which follows.

Policy. For study roadway segments that are within the jurisdiction of Stanislaus County, a separate set of criteria determines the acceptable operating standards. According to Policy 2.1 from the Circulation Element of the Stanislaus County General Plan, originally adopted in 1987 and most recently revised in 2000, the minimum acceptable operating standards has been determined as follows:

- The County shall maintain LOS C or better for all County roadways and intersections, except, within the sphere of influence of a city that has adopted a lower Level of Service standard, the City standard shall apply.

Criteria. The following describes the criteria for determining the significance of potential impacts on Stanislaus County facilities:

Intersections. A significant project impact is defined to occur at a signalized or un-signalized intersection if the addition of project traffic causes either of the following:

1. An intersection operating at an acceptable level (LOS C or better) to degrade to an unacceptable level (LOS D or worse).
2. An increase in control delay of more than five seconds at an approach/movement at a signalized or un-signalized intersection that currently operates at an unacceptable level.

Roadway Segment. A significant project impact is defined to occur at a roadway segment if the addition of project traffic causes either of the following:

1. A roadway segment operating at an acceptable level (LOS C or better) to degrade to an unacceptable level (LOS D or worse).
2. An increase in volume-to-capacity ratio of more than 0.05 on a roadway segment that currently operates at an unacceptable level.

Public Facilities Fee (PFF) Program / Regional Traffic Impact Fee

Development in Stanislaus County and its incorporated cities pay fees toward the cost of circulation system improvements of regional benefit through the Public Facilities Fee (PFF) programs Regional Transportation Fee. The PFF was last updated in September 2017. The regional fee's project list includes the study area projects listed in Table 9.

TABLE 9
STANISLAUS COUNTY REGIONAL TRANSPORTATION FEE (RTIF) PROJECTS

Street	Location	Improvement
Faith Home Road	Bridge Over Tuolumne River	4-lane Bridge
Faith Home Road	Expressway	Corridor Study
Source: ADM Draft Stanislaus County Comprehensive Public Facilities Impact Fee Update, Wildan, September 15, 2017		

Existing Plus Project Traffic Volumes

The analysis of project impacts assumes 100% build out of the WRSP and superimposes this traffic onto current background traffic volumes that have been adjusted to reflect the new route through the project to adjoining schools. The resulting "Existing plus WRSP Build Out" traffic volumes are presented in Figure 6.

For the purposes of comparison, daily traffic volumes on study area roads have been projected assuming full build out of the Specific Plan. These forecasts are presented in Table 10. As noted, this table lists project trips as well as the total segment volume including redistributed existing traffic.

Existing Plus Project Levels of Service

The peak hour Levels of Service occurring at study area intersections and Level of Service on roadway segments based on daily volume with development of the WRSP have been evaluated.

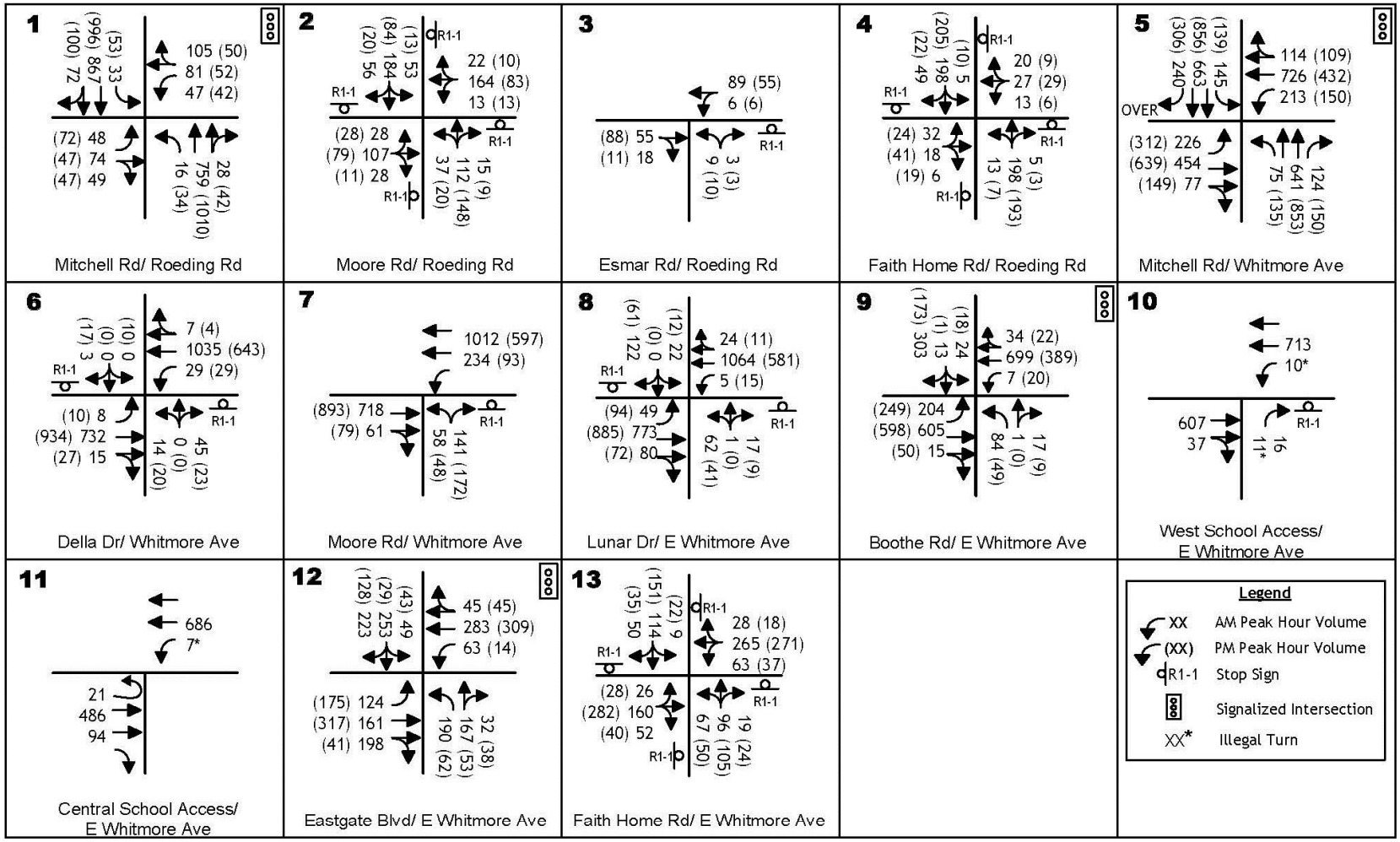
Roadway Segment Level of Service. As noted in Table 10, the addition of WRSP trips will not result in any new locations carrying daily volumes in excess of the City of Ceres minimum LOS D goal. However, without improvement the WRSP will cause the segment of Whitmore Avenue from Della Drive to Moore Road to operate at LOS E and will add traffic to the segment of Whitmore Avenue from Moore Road to Boothe Road which already operates at LOS F. Causing the segment to operate at LOS E is a significant impact, and under City policy an increase in daily traffic volumes greater than 5% is considered to be a significant impact when background conditions exceed LOS D. In this case, the project's increase represents an 11% increase.

The Safe Routes to School project will widen Whitmore Avenue primarily in the area of existing homes, and development in WRSP will be required to make frontage improvements to Whitmore Avenue as development proceeds, and ultimately the project will mitigate its impacts by widening Whitmore Avenue. However, depending on where development proceeds there may be an interim period when the road is not fully widened and the WRSP's impact remains significant. Development in the WRSP would cause the daily traffic on Whitmore Avenue to increase by 5% (i.e., 916 vehicles per day) when roughly 44% of the WRSP residences are occupied.

Impact T-1 Development of WRSP will result in Whitmore Avenue operating at Level of Service that exceed the City's LOS D minimum or increase the current volume significantly at locations where Levels of Service already exceed the LOS D minimum. This is a significant impact.

The following mitigation is applicable.

Mitigation T-1: The WRSP proponents shall cause the segment of Whitmore Avenue from Della Drive to Cesar Chavez Jr. High School to be widened to 4 lanes before 44% of the dwelling units are occupied within the WRSP or as directed by the City of Ceres. With this improvement the roadway will operate at LOS A and the project's impact will be less than significant.



EXISTING PLUS PROJECT
TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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figure 6

TABLE 10
EXISTING PLUS PROJECT DAILY TRAFFIC VOLUMES

Roadway	Location	Classification	Lanes	Existing		Existing Plus WRSP		
				Daily Volume	LOS	Daily Volume		LOS
						Project Only	Total	
Whitmore Avenue	Mitchell Rd to Della Dr	Arterial	4	16,432	A	2,750	19,340	A
	Della Dr to Moore Rd	Arterial	2+	16,432	D	**2,750**	**19,340**	**E**
	With Four Lanes		4	16,432	A		19,340	A
	Moore Rd to Boothe Rd	Arterial	2+	**18,320**	**E**	**2,065**	**20,490**	**F**
	With Four Lanes		4	18,320	A		20,490	A
	Boothe Rd to Eastgate Blvd	Arterial	2+	13,600	B	820	14,380	B
	Eastgate Blvd to Faith Home Rd	Arterial	2	6,900	A	510	7,415	A
Faith Home Road	Whitmore Ave to Roeding Rd	Rural Road	2	4,100	C	80	4,180	C
Eastgate Blvd	South of Whitmore Ave	Secondary Collector	2	3,402	A	70	3,410	A
Moore Road	Whitmore Ave to Roeding Rd	Local	2	3,127	A	1,015	4,090	A
Roeding Road	Moore Rd to Faith Home Rd	Collector	2	1,814	A	50	1,870	A

Bold values exceed the minimum LOS standard. **Highlighted** values are a significant impact
Total volume is the sum or current traffic, WRSP trips and redistributed existing traffic.

Level of Service at Intersections. Projected peak hour traffic volumes have been used to project Levels of Service assuming that with the exception of programmed improvements at Mitchell Road / Roeding Road no change to the traffic controls that exist today. Table 11 compares "Existing" and "Existing plus WRSP" Levels of Service.

As shown, development of the Master Plan will increase the volume of traffic passing through study area intersections, and resulting traffic conditions will exceed the City's minimum standard at three locations.

The Level of Service on the northbound approach to the **Whitmore Avenue / Moore Road intersection** will continue to exceed the City's LOS D minimum with the project, but the incremental change in delay will exceed the 30.0 seconds permitted under City guidelines. That increment could be exceeded when only 5% of the WRSP's residences are occupied, however that conclusion is dependent on the actual location of initial development, as residences on the west end of the WRSP use Moore Road to a greater extent.

In the a.m. peak hour the Level of Service on the southbound approach to the **Whitmore Avenue / Lunar Drive** intersection will drop from LOS D to LOS E, and the northbound approach will operate at LOS F. The northbound approach will operate at LOS E in the p.m. peak hour. These Levels of Service exceed the City's minimum LOS D standard. The Level of Service will become unacceptable when 50% of the residences in WRSP are developed, but again that conclusion is dependent on the location of initial development.

Development in Whitmore Ranch Specific Plan could cause the northbound approach to the **Whitmore Avenue / Boothe Road intersection** to operate at LOS F in the a.m. and p.m. peak hour. LOS F exceeds the City's minimum standard. While the Level of Service on the southbound approach will continue to be LOS F in the a.m. peak hour, the WRSP will reduce delays on this approach by adding the second eastbound through lane as a part of frontage improvements. Comparison of current and plus project conditions indicates that the LOS E threshold would be exceeded on the northbound approach when roughly 10% of the residences in WRSP are occupied.

Traffic Signal Warrants. Project traffic volumes have been compared to MUTCD peak hour warrants, and the results are noted in Table 12. As indicated the same locations that satisfy warrants under existing conditions do so with implementation of the WRSP. However, as noted previously, signalization is not necessary the preferred action at each location.

Intersection Mitigation Improvements Options. Alternatives for improving the Level of Service at study intersections have been evaluated and a preferred plan has been developed that will improve the Level of Service.

At the **Whitmore Avenue / Moore Road intersection** prohibiting northbound left turns will greatly reduce the length of delays on the northbound approach. Westbound traffic leaving the project would be diverted to Boothe Road and to Roeding Road. The City's LOS D minimum can be met in the a.m. and p.m. peak hour. In the long term the City may elect to further eliminate Moore Road access, which was the case with the area north of Whitmore Avenue.

Similarly, prohibiting left turns onto Whitmore Avenue would be the applicable strategy at the **Whitmore Avenue / Lunar Drive intersection.** Existing southbound left turns and the project northbound left turns would be diverted to the Boothe Road intersection. With this change the City's LOS D minimum can be met in the a.m. and p.m. peak hour.

The traffic signal included in the City's current PFF program is the applicable action at the **Whitmore Avenue / Boothe Road intersection**. Concurrently the northbound approach should need to be widened to accommodate a separate left turn lane.

The "triggers" for these improvements have been identified based on the need to avoid impacts at specific locations. However, in the case of the mitigation for intersections on Whitmore Avenue, the amount of development which triggers intersection impacts varies from 5% occupancy at Moore Road to 60% at Mitchell Road. Thus, the choice of trigger for a mitigation that affects all intersections, such as the Eastgate Blvd extension, will need to be determined by the City of Ceres. The recommended trigger is linked to impacts to the Whitmore Avenue / Boothe Road intersection, where occupancy of 10% of the WRSP residences would impact the intersection.

Impact T-2 Development of WRSP will result in study intersections operating at Level of Service that exceed the City's LOS D minimum or increase delays significantly at locations where Levels of Service already exceed the LOS D minimum and traffic signal warrants are satisfied. This is a significant impact.

Mitigations for Intersection Level of Service Impacts. The following mitigations are applicable, and the results of their implementation are noted in Figure 7 and Table 13.

Mitigation T-2A: The WRSP proponents shall cause the construction of a barrier at the Whitmore Avenue / Moore Road intersection to prohibit northbound left turns when directed by the City of Ceres.

Mitigation T-2B: The WRSP proponents shall cause the construction of a barrier at the Whitmore Avenue / Lunar Drive intersection to prohibit northbound and southbound left turns and cross traffic when directed by the City of Ceres.

Mitigation T-2C: The WRSP proponents shall cause the construction of a signalized intersection with separate left turn lanes at the Whitmore Avenue / Boothe Road intersection before 10% of WRSP's dwelling units are occupied when directed by the City of Ceres.

As noted in Table 13, peak hour Levels of Service satisfying the City of Ceres' minimum LOS D standard are projected. With these improvements the project's impact is not significant.

Pedestrian and Bicycle Facility Impacts. As noted under the discussion of existing conditions, facilities for pedestrians and bicyclists are present on most streets north of Whitmore Avenue. However, dedicated pedestrian facilities are absent along the project's Whitmore Avenue frontage. This route is already used by pedestrians, including children walking to Cesar Chavez

Jr. High School and La Rosa Elementary School, and WRSP will result in an appreciable increase in traffic on Whitmore Avenue. As a result potential motor vehicles and pedestrian conflicts may occur. This is a significant impact.

The City's Safe Routes to School project in concert with developer frontage improvements will address this issue. Development in WRSP will be required to make frontage improvements to Whitmore Avenue as development proceeds, and ultimately the project will mitigate its impacts by widening Whitmore Avenue including sidewalks and bicycle lanes. However, depending on where development proceeds and the schedule for the Safe Routes to School program there may be an interim period when the safe route is not completed when the WRSP's impact remained significant. Development in the WRSP would cause the daily traffic on Whitmore Avenue to increase substantially (i.e., by 5%) when roughly 44% of the WRSP residences are occupied.

Impact T-3 Development of WRSP will result in potential conflicts between motor vehicles and pedestrians on Whitmore Avenue where dedicated facilities are lacking and the project's traffic increase is substantial. This is a significant impact.

The following mitigation is applicable.

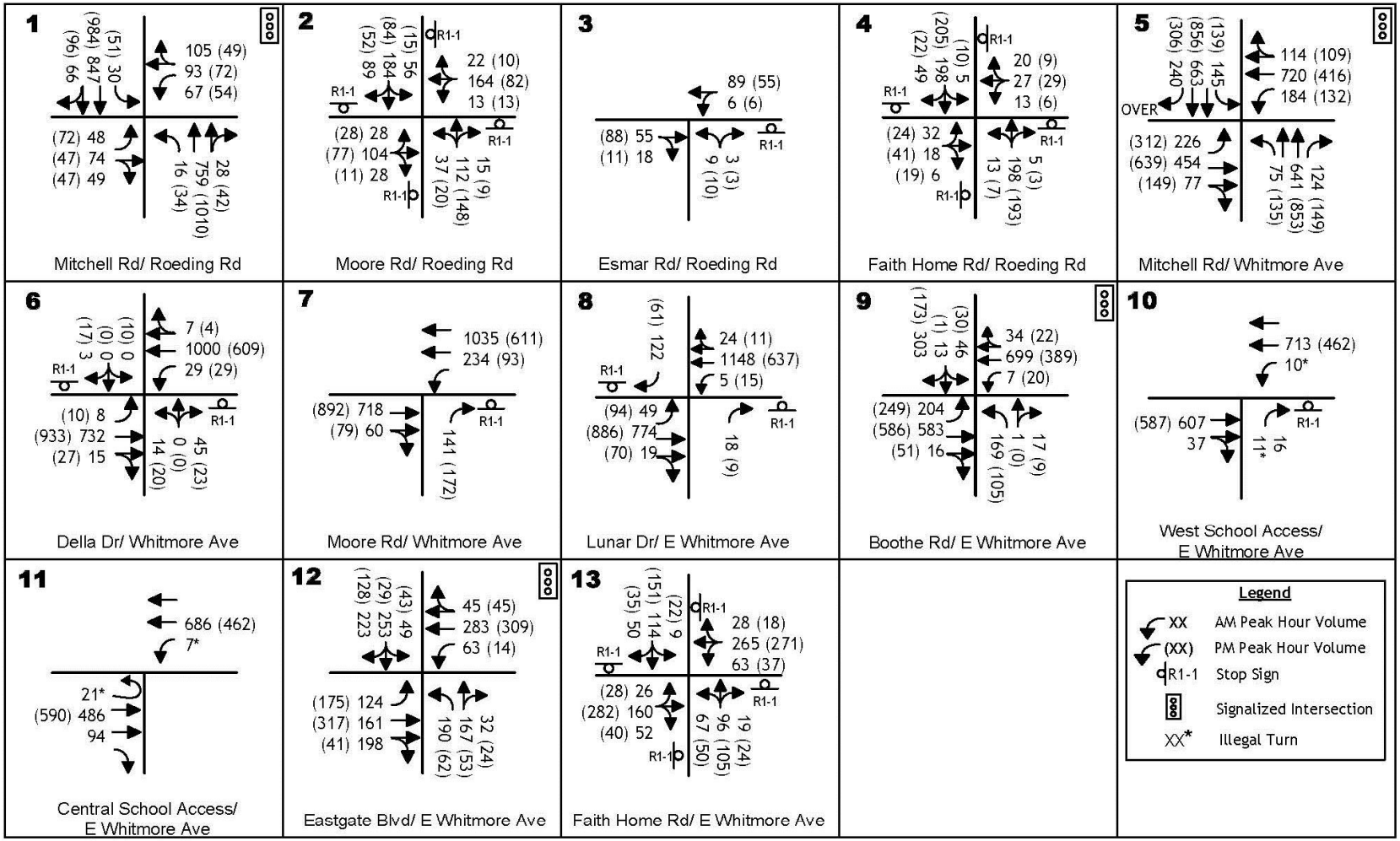
Mitigation T-3: The WRSP proponents shall cause an all-weather pedestrian facility to be constructed on the south side of the segment of Whitmore Avenue from Della Drive to Cesar Chavez Jr. High School before 44% of the dwelling units are occupied within the WRSP or as directed by the City of Ceres. With this improvement adequate pedestrian facilities will be provided, and the project's impact will be less than significant.

Transit Impacts. The residents within the WRSP may create the demand for transit services as an alternative to the private automobile. However, assuming 2% of the residences creates a candidate for transit service, the number of WRSP riders alone could reach eight. This demand can be accommodated by current services and would not justify changes to current transit routes. However, the project can contribute to the cumulative demand for transit service by constructing the bus-pull outs at the Whitmore Avenue / Boothe Road intersection that are included in the City PFF program.

Impact T-4 Development of WRSP will result incremental increase in area demand for transit service that alone is not significant but which in combination with other development may be cumulatively significant.

The following mitigation is applicable.

Mitigation T-4: The WRSP proponents shall cause a bus-pull out to be constructed at the Whitmore Avenue / Boothe Road intersection. With this improvement adequate transit facilities will be provided, and the project's impact will be less than significant.



MITIGATED EXISTING PLUS PROJECT
TRAFFIC VOLUMES AND LANE CONFIGURATIONS

TABLE 11
EXISTING PLUS PROJECT INTERSECTION LEVELS OF SERVICE

Intersection	Control	AM Peak Hour				PM Peak Hour			
		Existing		EX Plus WRSP		Existing		EX Plus WRSP	
		Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
Mitchell Road / Roeding Road	Signal	13.3	B	20.6	B	12.5	B	16.5	B
Moore Road / Roeding Road	All-Way Stop	15.2	B	15.7	B	9.3	A	9.5	A
Esmar Road / Roeding Road Northbound Approach	NB Stop	9.5	A	9.6	A	9.4	A	9.4	A
Faith Home Road / Roeding Road	All-Way Stop	9.9	A	10.1	A	9.2	A	9.3	A
Mitchell Road / Whitmore Avenue	Signal	42.5	D	53.1	D	38.5	D	48.3	D
Della Drive / Whitmore Avenue Northbound Approach Southbound Approach	NB/SB Stop	19.7 12.4	C B	17.1 13.5	C B	18.8 16.1	C C	20.8 15.1	C C
Moore Road / Whitmore Avenue Northbound Approach	NB Stop	**38.0**	**E**	**772.9**	**F**	33.5	D	**89.0**	**F**
Lunar Drive / Whitmore Avenue Southbound Approach Northbound Approach	SB Stop	29.0 -	D -	34.1 **74.9**	D **F**	14.6 -	B -	13.8 **39.3**	B **E**
Boothe Road / Whitmore Avenue Southbound Approach Northbound Approach	SB Stop	**258.8** -	**F** -	**351.6** **>999**	**F** **F**	21.1 -	C -	20.4 **229.9**	C **F**
Eastgate Blvd / Whitmore Avenue	Signal	36.9	D	34.3	C	18.1	B	18.2	B
Faith Home Road / Whitmore Avenue	All-Way Stop	15.0	B	16.0	C	17.1	C	19.6	C

Bold values exceed the minimum LOS standard. **Highlighted** values are a significant impact

TABLE 12
EXISTING PLUS PROJECT PEAK HOUR TRAFFIC SIGNAL WARRANTS

Intersection	Peak Hour Volumes											
	AM Peak Hour						PM Peak Hour					
	Existing			Existing Plus Project			Existing			Existing Plus Project		
	Major	Minor	Met?	Major	Minor	Met?	Major	Minor	Met?	Major	Minor	Met?
Roeding Rd / Moore Rd	352	282	No	362	293	No	288	107	No	294	118	No
Roeding Rd / Esmar Rd	164	12	No	168	12	No	155	13	No	160	13	No
Roeding Rd / Faith Home Rd	462	60	No	468	60	No	431	82	No	440	84	No
Whitmore Ave / Della Dr	1,620	59	No	1,826	59	No	1,352	43	No	1,647	43	No
Whitmore Ave / Moore Rd	1,880	151	**Yes**	2,025	199	**Yes**	1,394	185	**Yes**	1,662	220	**Yes**
Whitmore Ave / Lunar Dr	1,867	144	**Yes**	1,995	144	**Yes**	1,471	73	No	1,658	80	No
Whitmore Ave / Boothe Rd	1,575	327	**Yes**	1,564	340	**Yes**	1,233	191	**Yes**	1,328	192	**Yes**
Whitmore Ave / Faith Home Rd	557	181	No	594	182	No	634	202	No	676	208	No

Note: satisfaction of peak hour warrants indicates that a traffic signal may be justified but is not necessarily the preferred traffic control strategy at a particle location.

TABLE 13
MITIGATED EXISTING PLUS PROJECT INTERSECTION LEVELS OF SERVICE

Intersection	Control	AM Peak Hour with WRSP				PM Peak Hour with WRSP			
		No Mitigation		Mitigated		No Mitigation		Mitigated	
		Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
Mitchell Road / Roeding Road	Signal	20.6	B	21.4	C	16.5	B	14.4	B
Moore Road / Roeding Road	All-Way Stop	15.7	B	17.8	D	9.5	A	10.5	B
Esmar Road / Roeding Road Northbound Approach	NB Stop	9.6	A	9.6	A	9.4	A	10.3	B
Faith Home Road / Roeding Road	All-Way Stop	10.1	B	10.0	A	9.3	A	9.3	A
Mitchell Road / Whitmore Avenue	Signal	53.1	D	53.1	D	48.3	D	48.3	D
Della Drive / Whitmore Avenue Northbound Approach Southbound Approach	NB/SB Stop	 17.1 13.5	 C B	 16.9 13.3	 C B	 20.8 15.1	 C C	 19.7 15.3	 C C
Moore Road / Whitmore Avenue Northbound Approach	NB Stop	**772.9**	**F**	14.3	B	**89.0**	**F**	15.6	C
Lunar Drive / Whitmore Avenue Southbound Approach Northbound Approach	SB Stop	 34.1 **74.9**	 D **F**	 20.5 12.0	 C B	 13.8 **39.3**	 B **E**	 10.8 12.0	 B B
Boothe Road / Whitmore Avenue	Signal	**>999**	**F**	39.7	D	**229.9**	**F**	27.2	C
Eastgate Blvd / Whitmore Avenue	Signal	34.3	C	34.3	C	18.2	B	18.6	B
Faith Home Road / Whitmore Avenue	All-Way Stop	16.0	C	16.0	C	19.6	C	19.4	C

Bold values exceed the minimum LOS standard. **Highlighted** values are a significant impact

EXISTING PLUS APPROVED PROJECTS (BASELINE) IMPACTS

This report section considers the impacts of the WRSP within the context of short term future conditions that assume occupancy of other approved development projects.

Land Use Assumptions

City of Ceres staff considered the status of development proposals to identify those projects that have been approved but have not been occupied to identify projects which might reasonably be expected to add traffic to the study area circulation system. Table 14 summarizes these projects in terms of land use and trip generation.

As shown, the approved projects could generate almost 19,000 daily trips, with 611 trips occurring in the a.m. peak hour and 1,788 trips generated in the p.m. peak hour

TABLE 14
APPROVED PROJECTS AND THEIR TRIP GENERATION

Name	Description	Trip Generation		
		Daily	AM Peak Hour	PM Peak Hour
Davente Villas	32 SFR @ River Road / Mitchell	305	24	32
Tuscany Village	40 MFR on E. Whitmore Avenue	266	20	25
Middleton	Triplex @ 2606 Lawrence Street	20	2	3
Walmart	300 ksf commercial @ Service & Mitchell	13,550	392	1,231
Nanak Plaza	14.0 ksf office/restaurant at 3404 Mitchell Rd	154	21	21
San Juan Ranch	24 SFR 2 Morgan / Hackett	228	18	24
Cherry Hollow	20 MFR @ 2800 Blaker Road	132	10	12
CLE Office Building	4.8 ksf office @ 3019 Dale Court	53	7	7
Blaker Brewing	6.0 ksf microbrewery @ 1063 Montclaire	540	5	45
Dhillon Center	102.k ksf Commercial @ 3106 Mitchell Rd	3,200	93	360
Whitmore Car lot	2.4 ksf building @ 1612 E. Whitmore Ave	78	5	6
Rai Nursing	47.0 ksf nursing facility @ 1930 Hatch	266	14	22
Total		**18,792**	**611**	**1,788**

Circulation System Improvements

Roadway improvements that may already be required of approved projects have been identified in consultation with City staff and review of other documents. No improvements were identified within the study area.

Traffic Volume Forecasts

Existing Plus Approved Projects (EPAP) No WRSP Conditions. Daily and peak hour traffic volume forecasts for the Existing Plus Approved Projects baseline conditions were created by identifying the regional trip distribution pattern for each use and superimposing these trips onto current traffic volumes. Where traffic impact studies were already available, the distribution assumptions made therein were employed and expanded as needed into the study area. Where previous traffic studies were not available, new assumptions were made based on review of other reported and local traffic patterns. Figure 8 presents the resulting Existing Plus Approved Project traffic volumes at study area intersections.

EPAP Plus WRSP Traffic Volumes. WRSP trips were superimposed onto the EPAP background condition to create "Plus Project" volumes presented in Figure 9.

Existing Plus Approved Projects (EPAP) / No WRSP Levels of Service

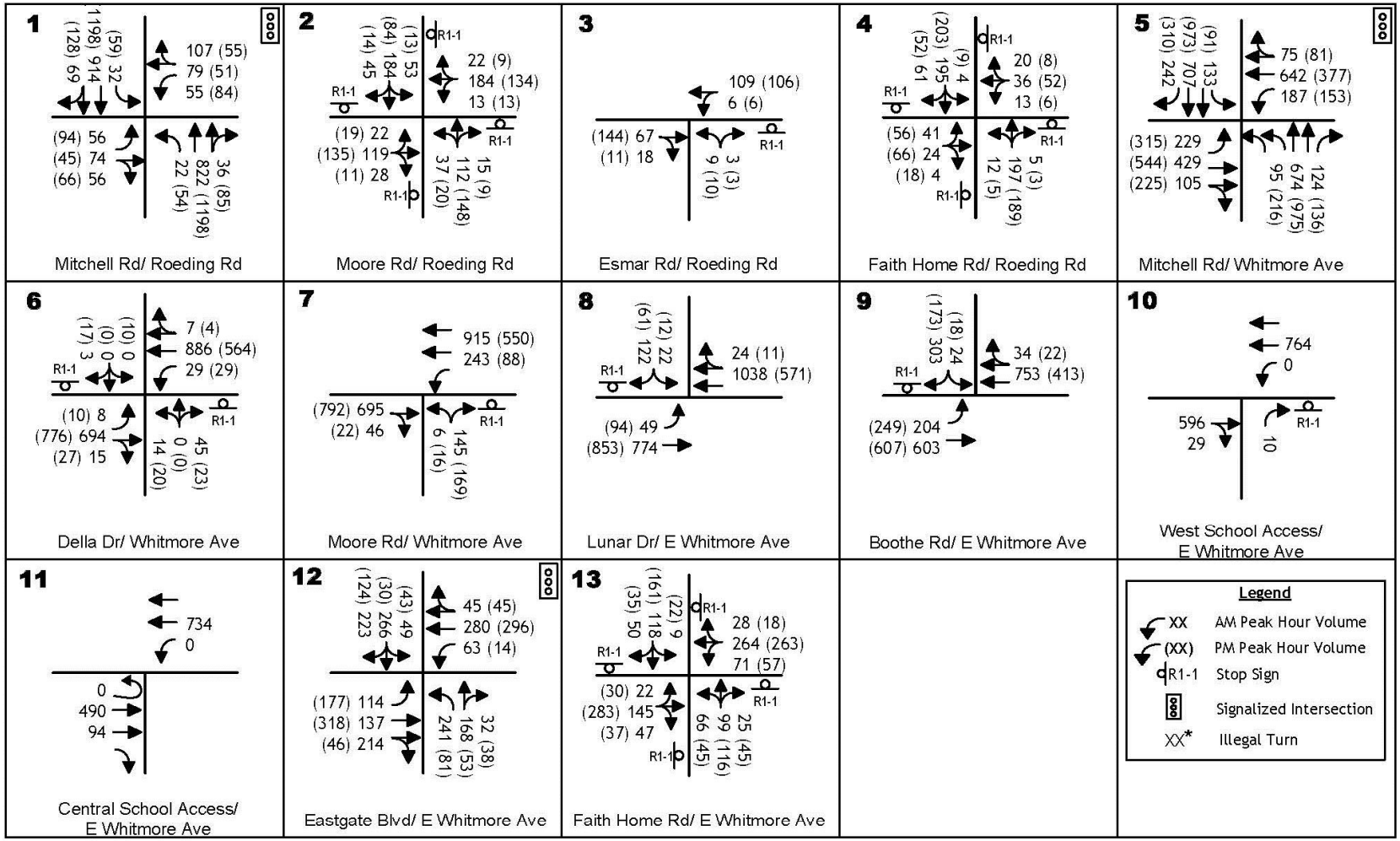
Intersection Levels of Service. Table 15 identifies background Levels of Service assuming approved projects are occupied and the improvements required of those projects are made. As indicated two locations will operate with Levels of Service that exceed the City's minimum LOS D standard.

The Level of Service at the Mitchell Road / Whitmore Avenue intersection will drop to LOS E.

The Level of Service on the northbound approach to the **Whitmore Avenue / Moore Road intersection** will continue to exceed the City's LOS D minimum.

Development of approved projects will contribute to LOS F conditions on the southbound approach to the **Whitmore Avenue / Boothe Road intersection.**

Roadway Segment Level of Service. As shown in Table 16, occupancy of approved projects will incrementally increase the volume of traffic on study area roads, and the Level of Service on Whitmore Avenue from Della Drive to Cesar Chavez Jr. High School will continue to exceed the LOS D standard.



EXISTING PLUS APPROVED PROJECTS
TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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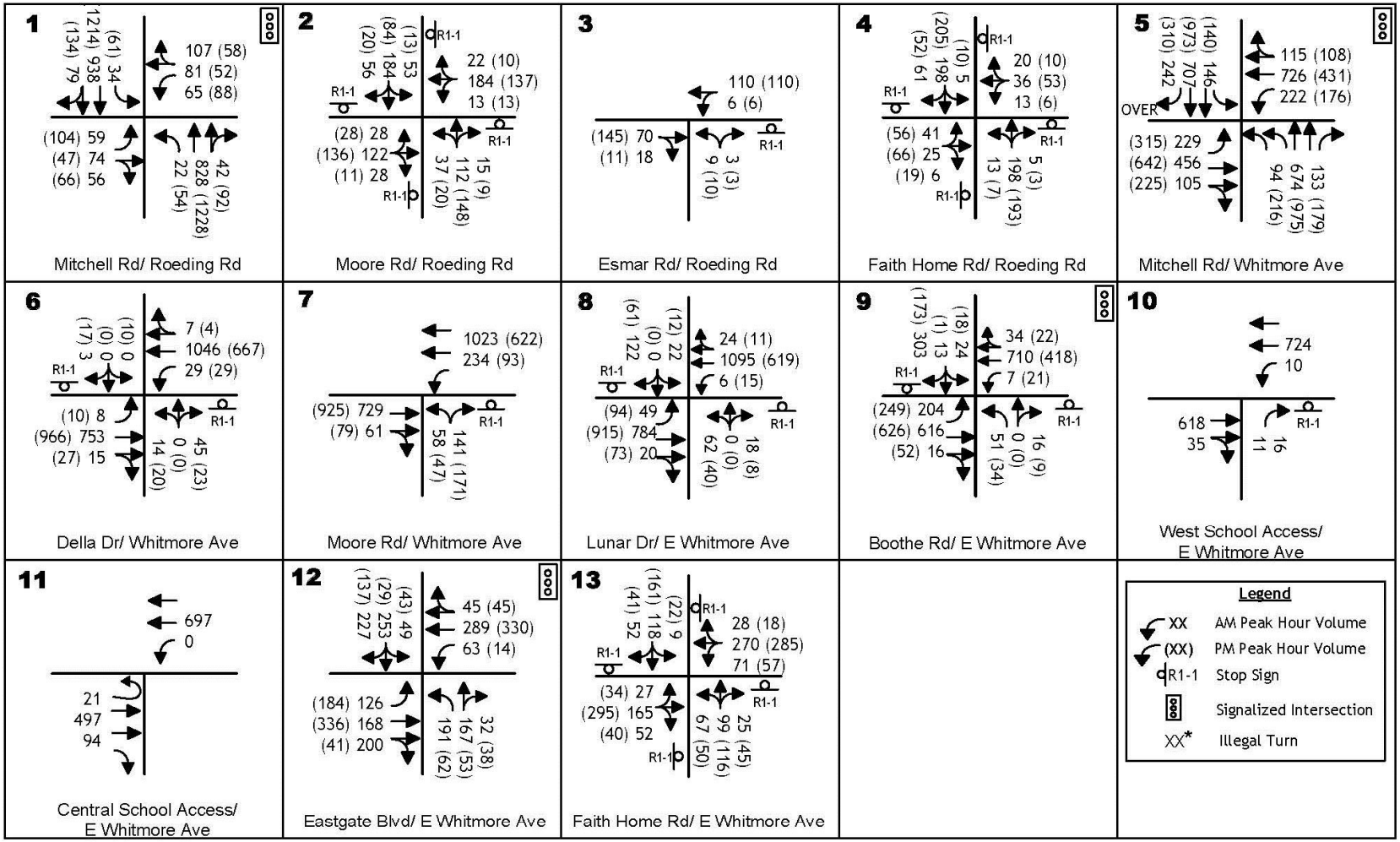
figure 8



EPAP PLUS PROJECT
TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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figure 9

EPAP Plus WRSP – Levels of Service

Intersection Levels of Service. As indicated in Table 15, the addition of WRSP trips to the baseline EPAP conditions will contribute to one intersection changing to LOS E and three intersections continuing to operate at Level of Service in excess of the City's LOS D standard.

The **Mitchell Road / Whitmore Avenue intersection** will operate at LOS E. LOS E exceeds the City's LOS D minimum standard. The incremental change in delay caused by the project is 8.8 seconds, which exceeds the City's allowable standard of 5.0 seconds. The intersection improvements included in the City fee program will be needed (i.e., 6-lane Mitchell Road).

The Level of Service on the northbound approach to the **Whitmore Avenue / Moore Road intersection** will continue to exceed the City's LOS D minimum with the project, and the incremental change in delay will exceed the 30.0 seconds permitted under City guidelines.

In the a.m. peak hour the Level of Service on the southbound approach to the **Whitmore Avenue / Lunar Drive** intersection will drop from LOS D to LOS E, and the northbound approach will operate at LOS F in the a.m. and LOS E in the p.m. peak hour. These Levels of Service exceed the City's minimum LOS D standard.

Development in Whitmore Ranch Specific Plan could cause the northbound approach to the **Whitmore Avenue / Boothe Road intersection** to operate at LOS F in the a.m. and p.m. peak hour. LOS F exceeds the City's minimum standard.

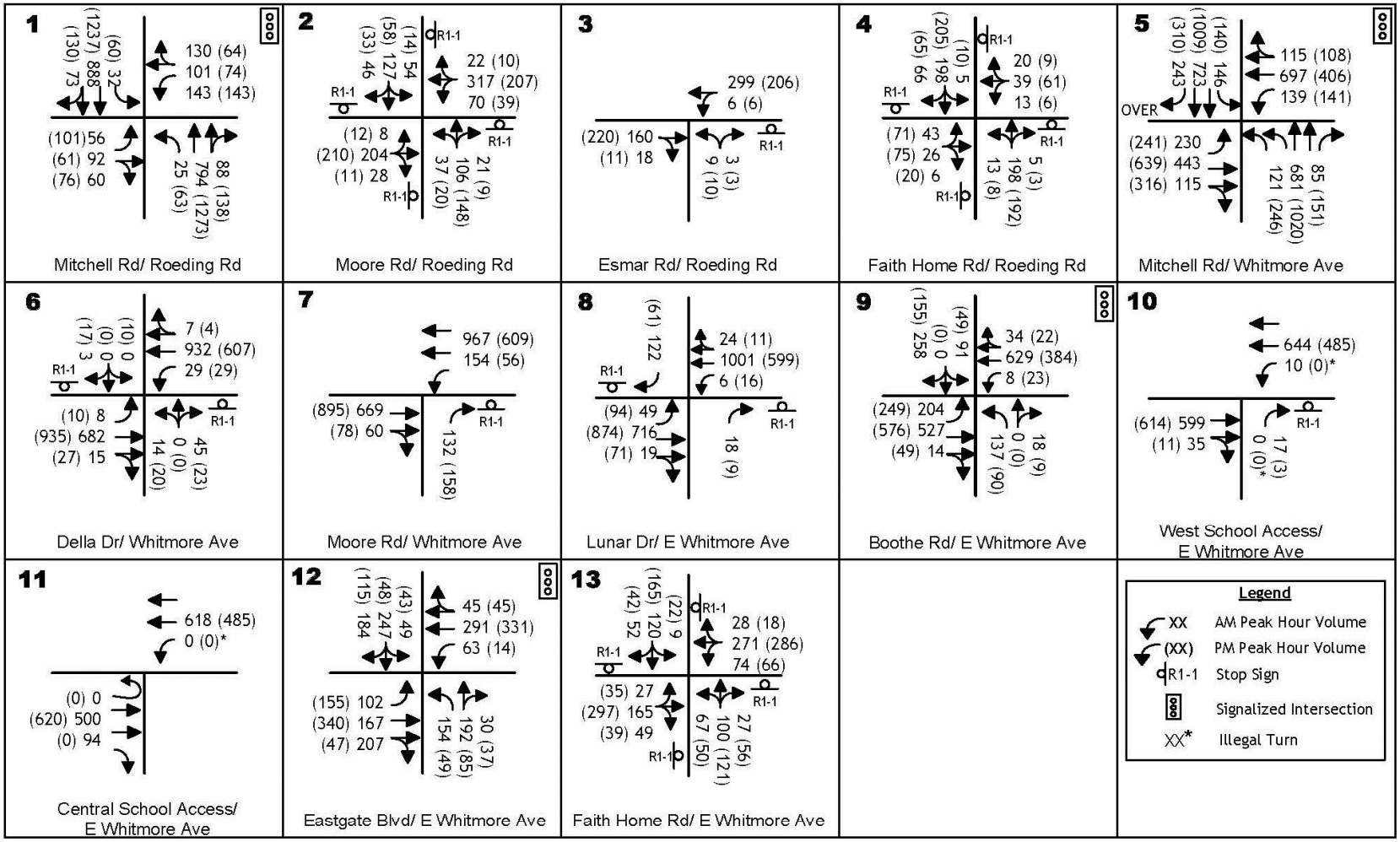
Impact T-5 Development of WRSP will result study in intersections operating at Level of Service that exceed the City's LOS D minimum or will increase delays significantly at locations where Levels of Service already exceed the LOS D minimum under Existing and traffic signal warrants are satisfied. This is a significant impact.

While these impacts are significant, the same on-site mitigations identified for Existing Plus Project impacts remain valid, and two additional mitigations are applicable. Figure 10 presents Mitigated EPAP Plus WRSP traffic volumes and Table 17 identifies mitigated Levels of Service.

The project's impact to the Mitchell Road / Whitmore Avenue intersection is significant. The City fee program includes funds for improving Mitchell Road to a 6-lane facility. This improvement will result in LOS D or better conditions.

Mitigation T-5A: The WRSP proponents shall contribute their fair share the cost of constructing an additional through lane in each direction on Mitchell Road by paying adopted traffic impact mitigation fees. With this improvement adequate Level of Service will be provided, and the project's impact will be less than significant.

Roadway Segment Level of Service. As shown in Table 16, occupancy of WRSP will incrementally increase the volume of traffic on study area roads, and the Level of Service on Whitmore Avenue from Della Drive to Cesar Chavez Jr. High School will continue to exceed the LOS D standard. However, the issue is addressed by Mitigation T-1, and no further mitigation is required.



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MITIGATED EPAP PLUS PROJECT
TRAFFIC VOLUMES AND LANE CONFIGURATIONS

figure 10

TABLE 15
EXISTING PLUS APPROVED PROJECTS INTERSECTION LEVELS OF SERVICE

Intersection	Control	AM Peak Hour				PM Peak Hour			
		Existing Plus Approved Projects		EPAP Plus WRSP		Existing Plus Approved Projects		EPAP Plus WRSP	
		Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
Mitchell Road / Roeding Road	Signal	20.3	C	20.0	C	25.2	C	24.4	C
Moore Road / Roeding Road	All-Way Stop	16.3	C	17.2	C	10.4	B	10.8	B
Esmar Road / Roeding Road Northbound Approach	NB Stop	9.9	A	9.8	A	10.2	B	10.2	B
Faith Home Road / Roeding Road	All-Way Stop	10.2	B	10.3	B	10.4	B	10.1	B
Mitchell Road / Whitmore Avenue	Signal	43.9	D	52.3	D	**57.8**	**E**	**66.5**	**E**
Della Drive / Whitmore Avenue Northbound Approach Southbound Approach	NB/SB Stop	 20.0 12.4	 C B	 17.4 13.6	 C B	 19.5 16.6	 C C	 21.5 15.5	 C C
Moore Road / Whitmore Avenue Northbound Approach	NB Stop	**39.5**	**E**	**785.6**	**F**	**37.0**	**E**	**102.8**	**F**
Lunar Drive / Whitmore Avenue Southbound Approach Northbound Approach	SB Stop	 31.3 -	 D -	 **35.0** **72.6**	 **E** **F**	 15.0 -	 C -	 14.1 **42.4**	 B **E**
Boothe Road / Whitmore Avenue Southbound Approach Northbound Approach	SB Stop	 **271.2** -	 **F** -	 **377.7** **>999**	 **F** **F**	 23.0 -	 C -	 22.8 **267.3**	 C **F**
Eastgate Blvd / Whitmore Avenue	Signal	37.1	D	35.1	D	18.5	B	18.8	C
Faith Home Road / Whitmore Avenue	All-Way Stop	16.1	C	17.2	C	23.0	C	28.5	D

Bold values exceed the minimum LOS standard. **Highlighted** values are a significant impact

TABLE 16
EXISTING PLUS APPROVED PROJECTS DAILY TRAFFIC VOLUMES

Roadway	Location	Classification	Lanes	Existing			Existing Plus WRSP		
				Daily Volume		Level of Service	Daily Volume		LOS
				Approved Projects	Total		Project Only	Total[1]	
Whitmore Avenue	Mitchell Rd to Della Dr	Arterial	4	585	17,020	A	2,750	19,925	A
	Della Dr to Moore Rd	Arterial	2+	585	17,020	D	**2,750**	**19,925**	**E**
	Moore Rd to Boothe Rd	Arterial	2+ / 4	**585**	**18,905**	**E**	2,065	21,075	A
	Boothe Rd to Eastgate Blvd	Arterial	2+	585	14,195	B	820	14,785	B
	Eastgate Blvd to Faith Home Rd	Arterial	2	405	7,305	A	510	7,820	A
Faith Home Road	Whitmore Ave to Roeding Rd	Rural Road	2	665	4,765	C	80	4,845	C
Eastgate Blvd	South of Whitmore Ave	Secondary Collector	2	40	3,445	A	70	3,410	A
Moore Road	Whitmore Ave to Roeding Rd	local	2	0	3,130	A	1,015	4,090	A
Roeding Road	Moore Rd to Faith Home Rd	Collector	2	1,195	3,010	A	50	3,065	A

Bold values exceed the minimum LOS standard. **Highlighted** values are a significant impact.
(1) Total includes redistribution of existing traffic due to route through project to schools

TABLE 17
MITIGATED EPAP PLUS PROJECT INTERSECTION LEVELS OF SERVICE

Intersection	Control	AM Peak Hour with WRSP				PM Peak Hour with WRSP			
		No Mitigation		Mitigated		No Mitigation		Mitigated	
		Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
Mitchell Road / Roeding Road	Signal	20.0	C	20.2	C	24.4	C	25.4	C
Moore Road / Roeding Road	All-Way Stop	17.2	C	19.6	C	10.8	B	10.9	B
Esmar Road / Roeding Road Northbound Approach	NB Stop	9.9	A	9.8	A	10.2	B	10.2	B
Faith Home Road / Roeding Road	All-Way Stop	10.3	A	10.3	A	10.1	B	10.1	B
Mitchell Road / Whitmore Avenue	Signal	52.3	D	51.3	D	**66.5**	**E**	54.8	D
Della Drive / Whitmore Avenue Northbound Approach Southbound Approach	NB/SB Stop	 17.4 13.6	 C B	 17.1 13.3	 C B	 21.5 15.5	 C C	 22.5 15.1	 C C
Moore Road / Whitmore Avenue Northbound Approach	NB Stop	**785.6**	**F**	14.5	B	**102.8**	**F**	17.1	C
Lunar Drive / Whitmore Avenue Southbound Approach Northbound Approach	SB Stop	 **35.0** **72.6**	 **E** **F**	 20.7 12.1	 C B	 14.1 **42.4**	 B **E**	 11.4 12.5	 B B
Boothe Road / Whitmore Avenue	Signal	**>999**	**F**	52.6	D	**267.3**	**F**	23.2	C
Eastgate Blvd / Whitmore Avenue	Signal	35.1	D	34.9	C	18.8	C	18.8	B
Faith Home Road / Whitmore Avenue	All-Way Stop	17.2	C	17.2	C	28.5	D	28.7	D

Bold values exceed the minimum LOS standard. **Highlighted** values are a significant impact

CUMULATIVE TRAFFIC IMPACTS

This report section considers the impacts of the WRSP within the context of long term traffic conditions that may accompany the development of regional circulation system improvements, regional development and implementation of the pending City of Ceres General Plan Update. To evaluate the impacts of the WRSP on future traffic conditions in the project area Year 2040 traffic volumes with and without the project were identified and assessed.

Approach to Using Ceres GPU Traffic Model

Available sources of information regarding future traffic conditions were consulted for this report, and the version of the Stanislaus Council of Governments (StanCOG) Tri-County regional travel demand forecasting model that was adapted for the Ceres General Plan Update was determined to be the best starting point. Because the land uses in the proposed project are consistent with the pending General Plan, the forecasts derived from the new traffic model represent the "plus Project" conditions.

Methodology. An "incremental approach" was taken to use the traffic model to create intersection turning movements and roadway segment volumes to best account for inherent limitations of a regional traffic model. The 2040 run results were compared to the GPA model's Year 2015 calibrated baseline year forecasts, and the incremental difference in segment volume was identified on a daily and peak hour basis. These increments were added to observed Year 2016 volumes to create the "adjusted" future condition. Individual growth rates were then calculated for each segment and intersection approach by comparing observed and adjusted future volumes. Finally, these growth rates were applied to the turning movement volumes at each intersection, and the results were balanced using the techniques contained in *Transportation Research Board's (TRB's) NCHRP report 255, Highway Data for Urbanized Area Project Planning and Design*.

The Cumulative No Project condition assumes that circulation system improvements are made but that no development occurs on the project site. No project traffic volume forecasts were created by identifying the WRSP's trip assignment under long term conditions and manually subtracting these trips from the Year 2040 plus Project values.

The analysis of cumulative traffic conditions conservatively assumes that existing peak hour factors (PHF's) at study area intersections will continue in the future. While it may be argued that PHF's may change in the future as background traffic increases, the presence of local schools will continue to influence peaking characteristics, particularly in the a.m. peak hour. For this reason this analysis assumes a "worst case" view by retaining existing PHF's.

Assumed Improvements

Because the long term cumulative analysis assumes community wide growth, including development of neighboring properties, the evaluation of future traffic conditions also assumes implementation of planned regional and local circulation system improvements. For the

cumulative analysis the following programmed improvements have been assumed:

1. Completion of the SR 99 / Mitchell Road interchange Modification Project.
2. Widening of Whitmore Avenue to 4-lanes per the City of Ceres PFF
3. Construction of the Faith Home Road Bridge across the Tuolumne River per the RTIF.
4. Widening of Faith Home Road south of the Tuolumne River to a four-lane expressway per the City of Ceres PFF
5. Installation of new traffic signals at the Whitmore Avenue / Boothe Road and Whitmore Avenue / Faith Home Road intersection per the City of Ceres PFF.

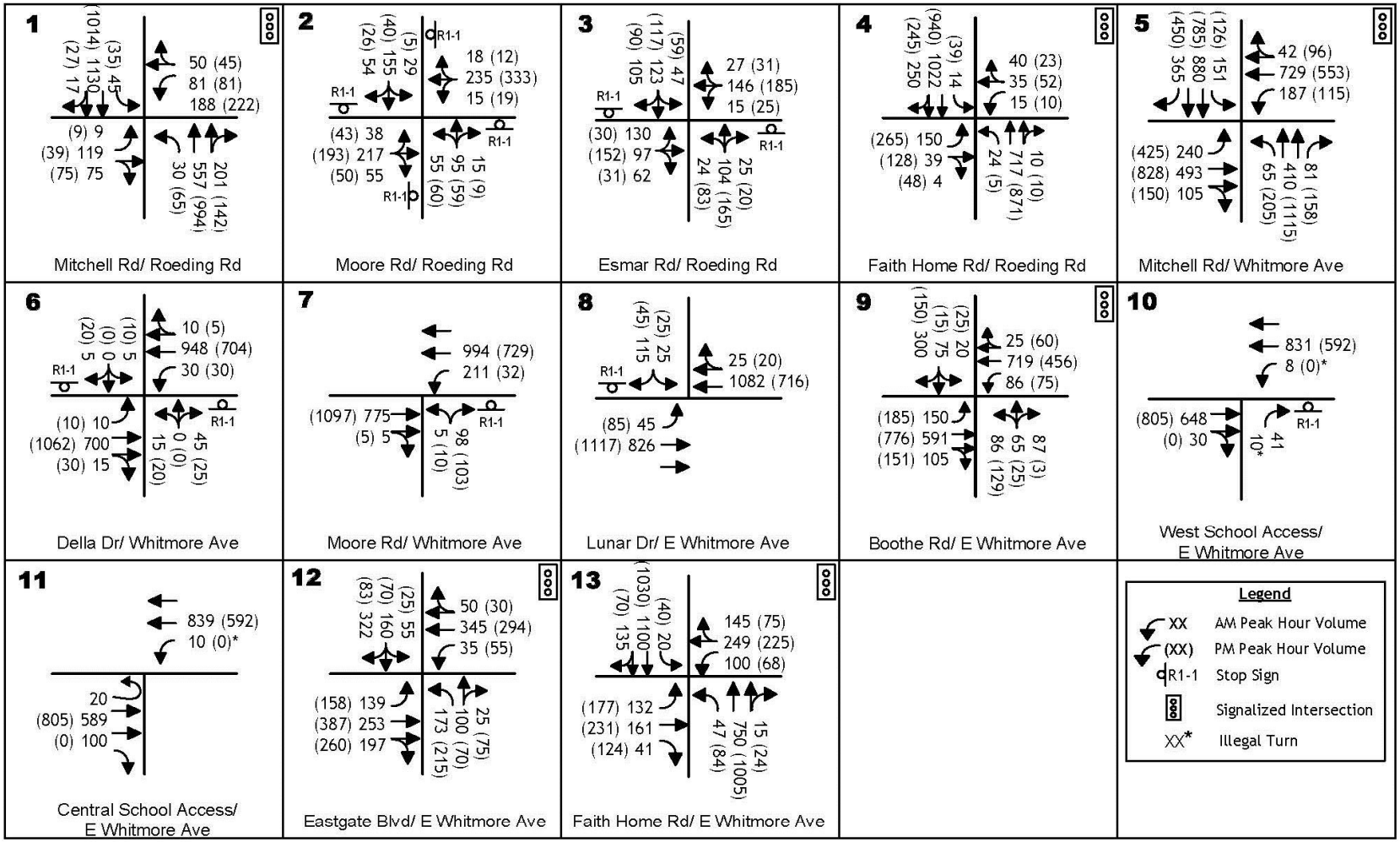
The City of Ceres considered the possibility of other local area development and indicated that the following local area improvements shoul0d be assumed although specific funding mechanisms are not in place:

- Completion of Stanford Avenue from Moore Road to Eastgate Blvd along the south side of the WRSP.
- Extension of Lunar Drive south from the WRSP to Roeding Road.
- Extension of Esmar Road to the north to connect to Boothe Road at the southern limits of the WRSP and to the south to Service Road.
- Extension of Eastgate Blvd from the current terminus across Roeding Road to Service Road.

Traffic Volume Forecasts

Daily Traffic Volumes. Cumulative Year 2040 daily traffic volume projections are presented for with and without project conditions in Table 18.

Peak Hour Traffic Volumes. Peak hour volumes were developed for conditions with and without the WRSP. Figure 11 presents a.m. and p.m. peak hour volumes assuming cumulative development without the occupancy of the WRSP. Figure 12 presents "Cumulative plus WRSP" volumes.



CUMULATIVE WITHOUT PROJECT
TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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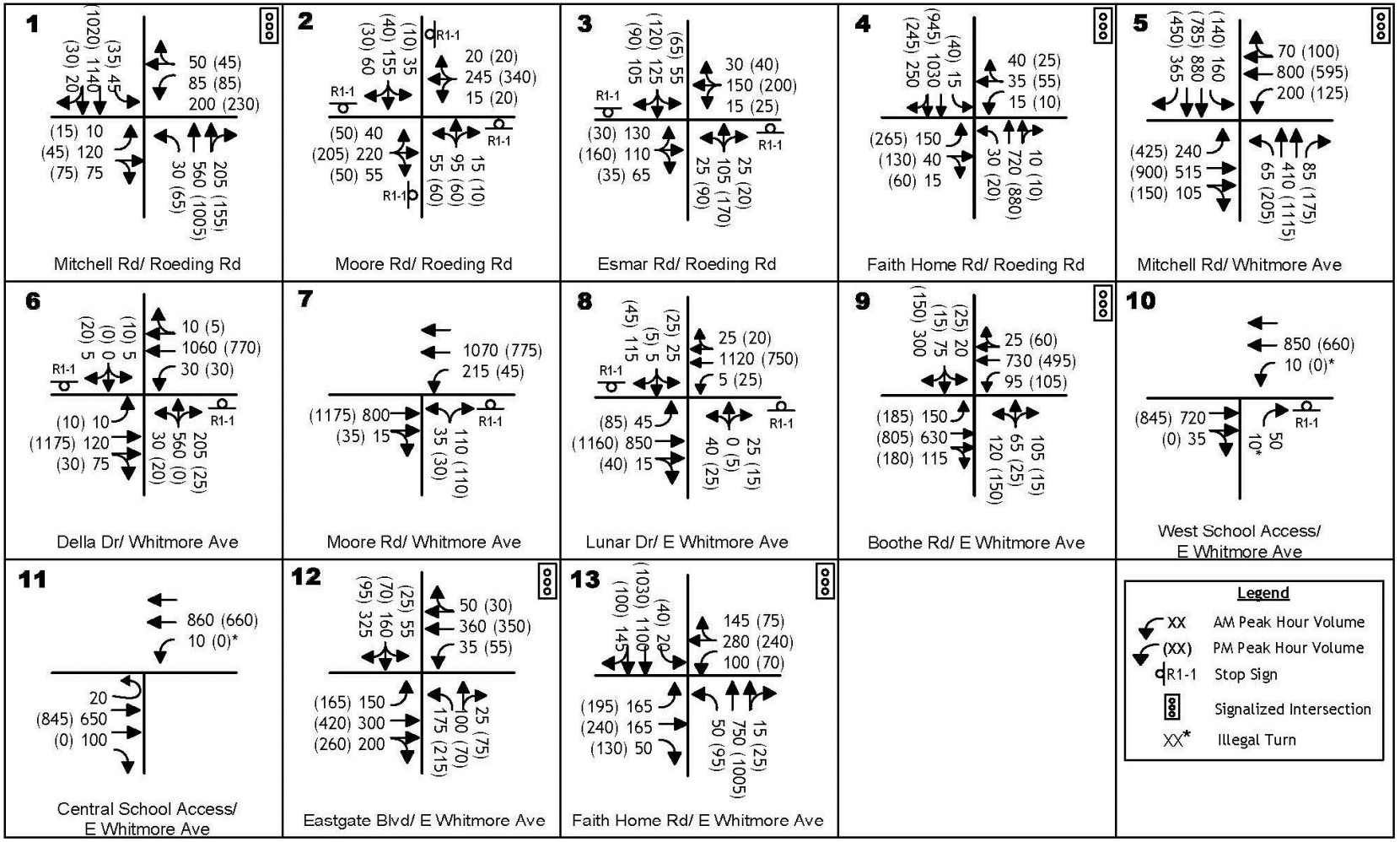
figure 11



CUMULATIVE WITH PROJECT
TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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figure 12

TABLE 18
CUMULATIVE YEAR 2040 PLUS PROJECT DAILY TRAFFIC VOLUMES

Roadway	Location	Classification	Lanes	Year 2040 No Project		Year 2040 with WRSP		
						Daily Volume		
				Daily Volume	Level of Service	Project Only	Total	LOS
Whitmore Avenue	Mitchell Rd to Della Dr	Arterial	4	21,565	A	1,760	23,325	A
	Della Dr to Moore Rd	Arterial	4	21,565	A	1,760	23,325	A
	Moore Rd to Boothe Rd	Arterial	4	21,015	A	1,375	22,390	A
	Boothe Rd to Eastgate Blvd	Arterial	4	19,875	A	975	20,850	A
	Eastgate to Faith Home Rd	Arterial	4	9,370	A	730	10,100	A
Faith Home Road	Whitmore Ave to Roeding Rd	Expressway	4	27,425	C	150	27,625	C
Eastgate Blvd	South of Whitmore Ave	Secondary Collector	2	4,310	A	190	4,500	A
Esmer Road-Boothe	Whitmore Ave to Roeding Rd	Primary Collector	2	3,430	A	870	4,300	A
Moore Road	Whitmore Ave to Roeding Rd	Local	2	1,350	A	750	2,100	A
Roeding Road	Moore Rd to Faith Home Rd	Secondary Collector	2	8,085	A	340	8,425	A

Bold values exceed the minimum LOS standard. **Highlighted** values are a significant impact

Cumulative (Year 2040) No Project Levels of Service

The results Level of Service analysis for both peak hours are shown in Table 19 and are further described in the following text.

Intersection Levels of Service without WRSP. As noted in Table 19, if no development occurs on the WRSP, then three intersections will still operate with Level of Service that do not satisfy the City's Minimum LOS D standard.

The Northbound and Southbound approaches to the **Roeding Road / Esmar Road / Boothe Road intersection** will operate at LOS E-F during the a.m. and p.m. peak hour. The intersection is projected to operate at LOS D in the a.m. peak hour with all-way stop control. A traffic signal could also deliver the City's minimum Level of Service standard, but the volume of traffic at the intersection does not reach the level that satisfies peak hour warrants. Alternatively, traffic controls that eliminate some turning movements or close off one leg might be considered as was the case at the Whitmore Avenue / Moore Road intersection.

The **Mitchell Road / Whitmore Avenue intersection** is projected to operate at LOS E in the p.m. peak hour, which exceeds the LOS D minimum. As has been noted earlier, the City's fee program includes funds to widen Mitchell Road to a 6-lane facility. However, that improvement would only yield LOS E. Because the corners of the intersection are occupied, acquiring the right of way for additional widening of the intersection will be problematic.

The **Whitmore Avenue / Boothe Road intersection** is projected to operate at LOS E in the a.m. peak hour. Improving the Level of Service could be improved by creating a northbound left turn lane on Boothe Road. Additional improvement could be achieved by reconfiguring the striping on the southbound approach to create a southbound right turn lane on Boothe Road. This action would require a parking prohibition on the west side of Boothe Road.

Roadway Segment Levels of Service. As noted in Table 18, if future circulation system improvements are made by development in the WRSP does not occur, then all study are roadways will carry daily traffic volumes that satisfy the City of Ceres' minimum LOS D standard.

Cumulative (Year 2040) with WRSP Levels of Service

Peak Hour Intersection Levels of Service. As noted in Table 19, the addition of WRSP trips to cumulative background conditions results in six intersections which will operate with Levels of Service in excess of the City's minimum LOS D standard.

The **Roeding Road / Esmar Road / Boothe Road intersection** will operate at LOS F with and without the project. Because conditions exceed the City's minimum standard, the significance of the project's impacts is based on the change in delay. In this case the project would add less than 30.0 seconds of delay to any approach, and the project's impact is not significant, and mitigation is not required.

The **Mitchell Road / Whitmore Avenue intersection** is projected to operate at LOS E in the p.m. peak hour with the project. Because conditions exceed the City's minimum standard, the significance of the project's impacts is based on the change in delay. In this case the project would add more than 5.0 seconds of overall delay, and the project's impact is significant.

The northbound approach to the **Whitmore Avenue / Moore Road intersection** will deteriorate to LOS F conditions with the addition of project trips. Because LOS F exceeds the City's minimum standard this is a significant impact.

The northbound approach to the **Whitmore Avenue / Lunar Drive intersection** will deteriorate to LOS F conditions with the addition of project trips. Because LOS F exceeds the City's minimum standard this is a significant impact.

The **Whitmore Avenue / Boothe Road intersection** is projected to deteriorate from LOS E to LOS F in the a.m. peak hour with the addition of WRSP trips. Because conditions exceed the City's minimum LOS D standard, the significance of the project's impact is based on the change in delay. In this case the project would add more than 5.0 seconds of overall delay, and the project's impact is significant.

The **Whitmore Avenue / Faith Home Road intersection** is projected to operate at LOS E in the a.m. peak hour with the addition of project trips. Because LOS E exceeds the City's minimum standard, this is a significant impact.

Roadway Segment Level of Service with WRSP. As noted in Table 18, the addition of WRSP trips does not result in any roadway segment operating with Level of Service in excess of the City's LOS D standard.

Conditions with Cumulative (Year 2040) Improvements

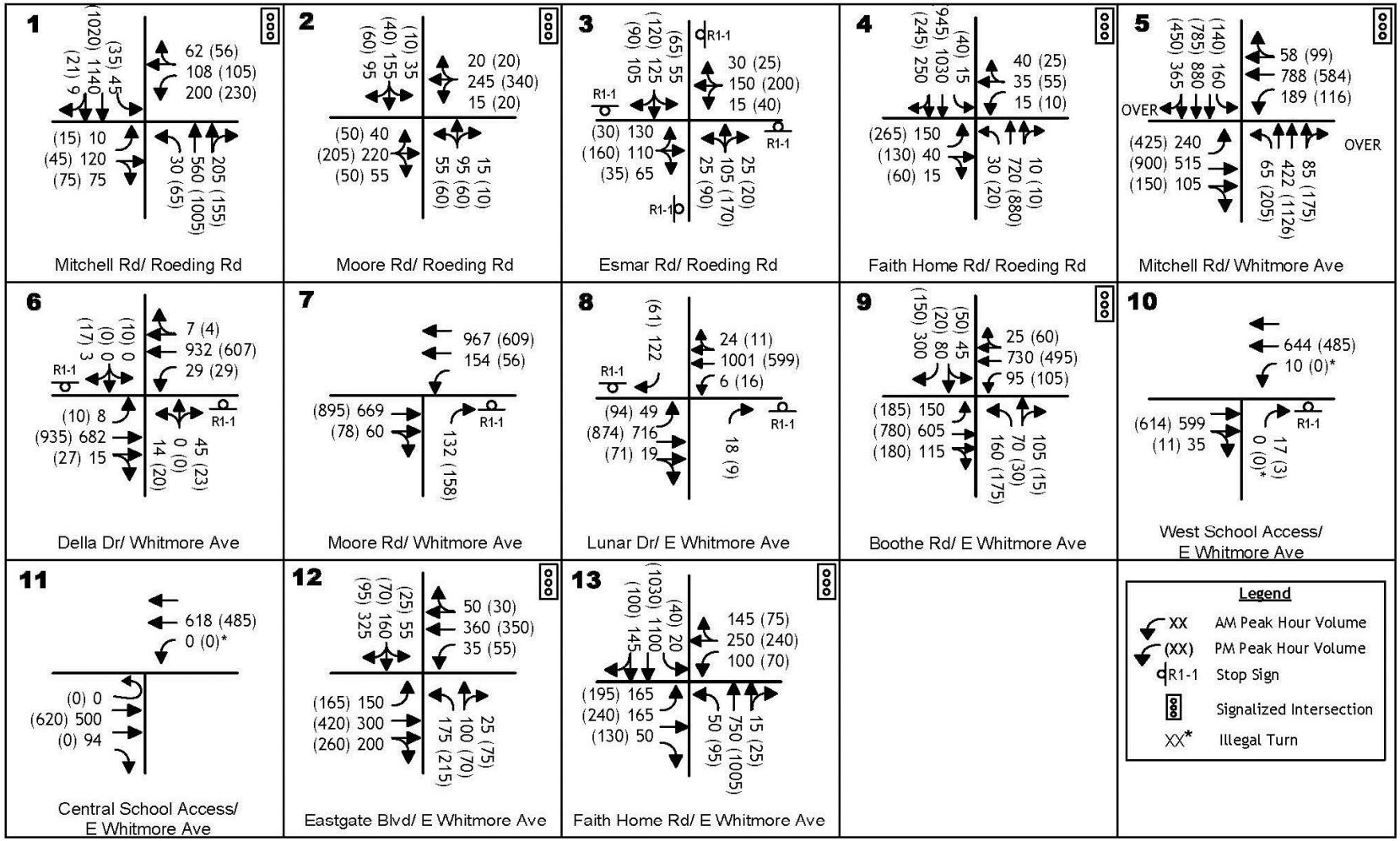
Mitigation Measures. The approach to mitigation of cumulative impacts is similar to that already identified for Existing plus Project conditions. A combination of traffic control changes at un-signalized intersections and local improvements is needed. These include:

- Mitchell Road / Whitmore Avenue intersection: Install fee program's 6-lanes on Mitchell Road
- Whitmore Avenue / Moore Road intersection: prohibit northbound left turns
- Whitmore Avenue / Lunar Drive intersection: prohibit northbound and southbound left turns
- Whitmore Avenue / Boothe Road intersection: add a northbound left turn lane and southbound right turn lane

Mitigated Cumulative Intersection Levels of Service. Figure 13 and Table 20 identifies the results of implementing cumulative mitigation measures in terms of intersection Level of Service.

Mitigation Measure T5A requires the project to contribute to the cost of improving the Mitchell Road / Whitmore Avenue intersection by paying adopted impact fees. However, while delays are reduced with that planned improvement the Mitchell Road / Whitmore Avenue intersection is projected to operate at LOS E in the p.m. peak hour. No additional improvements appear feasible as the adjoining intersection corners are fully occupied. ***As a result, the impact is Significant and Unavoidable.***

The redistribution of trips caused by implementing mitigations at the Whitmore Avenue / Moore Road and Whitmore Avenue / Lunar Drive intersection will increase the volume of traffic through the Roeding Road / Moore Road intersection and poorer Levels of Service will result. The relative difference in delay with an all-way stop exceeds the threshold of significance. a traffic signal would theoretically address this issue and deliver adequate Level of Service, but, as was the case at the Whitmore Avenue / Moore Road intersection, the City could also elect to abandon Moore Road. This issue will need to be addressed when the balance of the area north of Roeding Road develops in the future, and project mitigation is not required.



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MITIGATED CUMULATIVE PLUS PROJECT
TRAFFIC VOLUMES AND LANE CONFIGURATIONS

figure 13

TABLE 19
CUMULATIVE PLUS PROJECT INTERSECTION LEVELS OF SERVICE

Intersection	Control	AM Peak Hour				PM Peak Hour			
		Year 2040 No Project		Year 2040 Plus WRSP		Year 2040 No Project		Year 2040 Plus WRSP	
		Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
Mitchell Road / Roeding Road	Signal	30.7	C	30.4	C	24.5	C	25.7	C
Moore Road / Roeding Road	All-Way Stop	26.5	D	31.9	D	15.6	C	17.3	C
Esmar Road / Roeding Road	NB/SB Stop								
Northbound Approach		**37.4**	**E**	**43.4**	**E**	**58.3**	**F**	**86.5**	**F**
Southbound Approach		**54.4**	**F**	**75.3**	**F**	**32.8**	**E**	**44.3**	**E**
Faith Home Road / Roeding Road	Signal	24.2	C	25.0	C	24.2	C	25.7	C
Mitchell Road / Whitmore Avenue	Signal	47.6	D	51.9	D	**72.5**	**E**	**78.2**	**F**
Della Drive / Whitmore Avenue	NB/SB Stop								
Northbound Approach		16.0	C	17.6	C	24.0	C	28.0	D
Southbound Approach		22.6	C	26.1	D	15.9	C	17.1	C
Moore Road / Whitmore Avenue	NB Stop								
Northbound Approach		22.9	C	**384.4**	**F**	23.0	C	**75.2**	**F**
Lunar Drive / Whitmore Avenue	SB Stop								
Southbound Approach		29.5	D	29.2	D	17.4	C	26.7	D
Northbound Approach		-	-	**66.8**	**F**	-	-	**50.6**	**F**
Boothe Road / Whitmore Avenue	Signal	**66.9**	**E**	**88.4**	**F**	32.1	C	30.1	C
Eastgate Blvd / Whitmore Avenue	Signal	43.9	D	46.0	D	26.1	C	27.2	C
Faith Home Road / Whitmore Avenue	Signal	50.3	D	**58.2**	**E**	43.1	D	48.4	D

Bold values exceed the minimum LOS standard. **Highlighted** values are a significant impact

TABLE 20
MITIGATED CUMULATIVE PLUS PROJECT INTERSECTION LEVELS OF SERVICE

Intersection	Control	Year 2040 AM Peak Hour				Year 2040 PM Peak Hour			
		No Mitigation		Plus Mitigation		No Mitigation		Plus Mitigation	
		Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
Mitchell Road / Roeding Road	Signal	30.4	C	31.5	C	25.7	C	25.5	C
Moore Road / Roeding Road	All-Way Stop	31.9	D	**41.2**	**E**	17.3	C	18.4	C
	Signal			7.4	A				
Esmar Road / Roeding Road	NB /SB Stop	**43.4**	**E**	**43.4**	**E**	**86.5**	**F**	**86.5**	**F**
Northbound Approach		**75.3**	**F**	**75.3**	**F**	**44.3**	**E**	**44.3**	**E**
Southbound Approach									
Faith Home Road / Roeding Road	Signal	24.2	C	25.0	C	25.7	C	25.7	C
Mitchell Road / Whitmore Avenue	Signal	51.9	D	54.2	D	**78.2**	**F**	**71.6**	**E**
Della Drive / Whitmore Avenue	NB/SB Stop								
Northbound Approach		17.6	C	12.8	C	28.0	D	27.7	D
Southbound Approach		26.1	D	16.0	D	17.1	C	16.7	C
Moore Road / Whitmore Avenue	NB Stop								
Northbound Approach		**384.4**	**F**	13.6	B	75.2	F	**17.5**	**C**
Lunar Drive / Whitmore Avenue	SB Stop								
Southbound Approach		29.2	D	17.6	B	26.7	D	14.1	B
Northbound Approach		**66.8**	**F**	11.6	C	50.6	F	11.9	B
Boothe Road / Whitmore Avenue	Signal	**88.4**	**F**	34.0	C	30.1	C	32.1	C
Eastgate Blvd / Whitmore Avenue	Signal	46.0	D	46.0	D	27.2	C	27.2	C
Faith Home Road / Whitmore Avenue	Signal	**58.2**	**E**	45.7	D	48.4	D	42.2	D

Bold values exceed the minimum LOS standard. **Highlighted** values are a significant impact

APPENDIX

(under separate cover)