FINAL
ENVIRONMENTAL IMPACT REPORT

FOR THE

MARIPOSA INDUSTRIAL PARK

State Clearinghouse Number: 2020120283

February 28, 2022

Prepared for:

City of Stockton
Department of Community Development
345 N. El Dorado Street
Stockton, CA 95202
(209) 937-8266

BaseCamp Environmental

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Prepared by:

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802 West Lodi Avenue
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1.0 INTRODUCTION

1.1 PROJECT AND EIR OVERVIEW

This Final Environmental Impact Report (Final EIR) describes the potential environmental impacts that would result from City of Stockton (City) approval and subsequent development of the proposed Mariposa Industrial Park (project). The EIR evaluates the potential environmental effects of the proposed annexation and industrial development of the project site, which consists of nine parcels of land totaling 203.48 acres. The site is currently in the unincorporated area of San Joaquin County adjacent to the southeastern Stockton city limits (Figures 1-1 through 1-5).

Conceptual plans for industrial development involve seven "high-cube" warehouses with a total floor area of 3,616,870 square feet, along with parking stalls, associated utility infrastructure, and vehicular access extended from Mariposa Road onto the site. The project would require discretionary approvals from the City of Stockton consisting of authorization to apply to the San Joaquin Local Agency Formation Commission (LAFCo) for annexation, pre-zoning, tentative subdivision map and a development agreement. The project would also require site plan review and design review approvals, which occur at the staff level and are ministerial. LAFCo will be responsible for consideration and approval of the annexation.

CEQA Guidelines Section 15124(b) requires that the project description contain a clearly written statement of project objectives, including the purpose of the project. The statement of project objectives is an important determinant for the lead agency when it develops a reasonable range of alternatives to evaluate in the EIR.

The primary private- and public-sector objectives for the proposed project include:

- Development of approximately 3.6 million square feet of industrial space for leasing to various potential tenants together with associated site and utility improvements.
- To provide for industrial development of the site as contemplated by the Stockton General Plan 2040. Stockton General Plan Policy LU-4.1 encourages large-scale development proposals in appropriate locations that include significant numbers of higher-wage jobs and local revenue generation.
- To take advantage of existing development-ready infrastructure and provide for project design flexibility in the allowable number and size of parcels and industrial structures, thereby maximizing the industrial development potential of the site.
- To comply with the natural resource management objectives of the Stockton General Plan 2040 by placing new industrial development in an area where

potential impacts to sensitive natural resources are or can be reduced or avoided through site design, development phasing, and landscaping.

During and after the current environmental review process for the project, it is anticipated that potential tenants and tenant-specific site development plans for the site or portions of the site will be generated and submitted to the City of Stockton for site plan and design review approval. The subsequent applications will require consideration under the California Environmental Quality Act (CEQA), including whether or not the potential environmental effects of the tenants' projects are adequately addressed by this Final EIR.

1.2 CEQA PROCESSING AND FINAL EIR

This EIR has been prepared in accordance with the requirements of CEQA and the State CEQA Guidelines. The City of Stockton is the "lead agency" for the proposed project. The City determined that an EIR would be required for the project and released a Notice of Preparation (NOP) on December 14, 2020 for agency and public review. The State Clearinghouse subsequently transmitted the NOP to State agencies on December 16, 2020 The City's NOP comment period closed on January 12, 2021, and the State Clearinghouse review period closed on January 14, 2021. A copy of the NOP and attachment are included in Appendix A of the Draft EIR.

The City prepared a Draft EIR (the Public Review Draft EIR, dated August 24, 2021) that identified the potential environmental effects of the project. The Draft EIR was distributed locally and through the State Clearinghouse (SCH #2020120283) for agency and public comment between August 24, 2021 through October 7, 2021. The Draft EIR distribution list, legal notices and other information related to the public review period for the Draft EIR are shown in Appendix A of this document. Public and agency comments received by the City during the public review period, together with the City's responses to these comments, are shown in Chapter 3.0 of this document. A comment letter from the California Air Resources Control Board, received after the close of the review period, is addressed in the same way.

This Final EIR has been prepared pursuant to the requirements of CEQA and the CEQA Guidelines. CEQA Guidelines Section 15132 specifies the content of a Final EIR as:

- The Draft EIR or a revision of the draft,
- Comments and recommendations received on the Draft EIR, either verbatim or in summary,
- A list of persons, organizations, and the public agencies commenting on the Draft EIR,
- The responses of the Lead Agency to significant environmental points raised in the review and consultation process, and
- Any other information added by the Lead Agency. This includes additional

technical information or clarification to the Draft EIR submitted by City staff.

The Final EIR provides the information required by the CEQA Guidelines. This Section 1.0 describes the purpose and format of the Final EIR. Section 2.0 summarizes the Public Review Draft EIR, as modified in response to comments on the Draft EIR. Section 3.0 lists the comments regarding the Public Review Draft EIR as received by the City; Section 3.0 shows the entire text of each comment and provides the City's response to each of the substantive environmental concerns identified in the comments. Section 4.0 Errata describes any required corrections and changes to the Public Review Draft EIR, including changes in response to public and agency comments and any other revisions originating with City staff. Appendix A displays copies of the Notice of Availability of the Public Review Draft EIR, the distribution list for the EIR public notice, the Notice of Completion, and other material related to the public review of the EIR.

The Public Review Draft EIR, cited below, is hereby incorporated by reference. Copies of the Draft EIR are available for review at the City of Stockton Community Development Department, 345 N. El Dorado Street, Stockton, CA 95202.

> Public Review Draft Environmental Impact Report for the Mariposa Industrial Park Project, Stockton, CA. August 24, 2021. Prepared for City of Stockton Department of Community Development, 345 N. El Dorado Street, Stockton, CA 95202. Prepared by BaseCamp Environmental, Inc., 802 West Lodi Avenue, Lodi, CA 95240. State Clearinghouse Number 2020120283.

1.3 EIR CERTIFICATION AND FINDINGS

Sections 15090 through 15093 of the CEQA Guidelines outline procedures for decision-making by the Lead Agency (the City of Stockton) when an EIR has been prepared. Before taking action on the project, the City must first certify that the EIR is adequate under CEQA. Then, in conjunction with its decision on the project, the City must make specific findings with respect to each of the significant environmental effects identified in the EIR.

Guidelines for the certification of an EIR (CEQA Guidelines Section 15090) require that the Lead Agency certify that 1) the Final EIR has been completed in compliance with CEQA, 2) that the Final EIR was presented to the decision-making body of the Lead Agency, and the decision-making body reviewed and considered the information contained in the Final EIR prior to a decision on the project, and 3) that the Final EIR reflects the Lead Agency's independent judgment and analysis.

The EIR is intended by CEQA to be an informational document (CEQA Guidelines Section 15121). Decision-making on the project in relation to its environmental impacts is reserved to the Lead Agency and any Responsible Agencies. Consequently, information in the EIR does not limit the Lead Agency's ultimate discretion on the project, but as noted the Lead Agency must address each significant effect identified in the EIR in written findings before they approve the project, or portions of the project (CEQA Guidelines Section 15091). These findings are contained in a separate document that accompanies this Final EIR. The possible findings are:

1. Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR (i.e., the impact has been "mitigated"). This finding will be widely applicable in the project findings, as most of the significant effects of the project would be reduced to less than significant with mitigation measures.

2. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency (i.e., mitigation is the responsibility of an agency other than the City of Stockton). This finding is not applied to any of the significant effects of the project.

3. Specific economic, legal, social, technological or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR (i.e., the impact is acceptable because the project's benefits outweigh it). In this case, the project involves one or more significant effects that cannot be reduced to a less than significant level, and a Statement of Overriding Considerations will be necessary.

In the event that the City wishes to approve a project without providing substantial mitigation for all its significant impacts of the project (i.e., if the second or third finding options are utilized), then CEQA Guidelines Section 15093 allows the decision-makers to balance the project's benefits against its unavoidable environmental risks. This decision must be documented in a Statement of Overriding Considerations and adopted by the project decision-makers. The CEQA findings for the project, as noted above, include a Statement of Overriding Consideration.

As a part of the project consideration and approval process described above, the City must also adopt a mitigation monitoring and/or reporting program (CEQA Guidelines Section 15097). The mitigation monitoring/reporting program is required to ensure that the mitigation measures and project revisions identified in the EIR are implemented. The measures and revisions described in the EIR are fully enforceable through permit conditions, agreements, or other measures. The mitigation monitoring/reporting program for this project is contained in a separate document that accompanies this Final EIR.

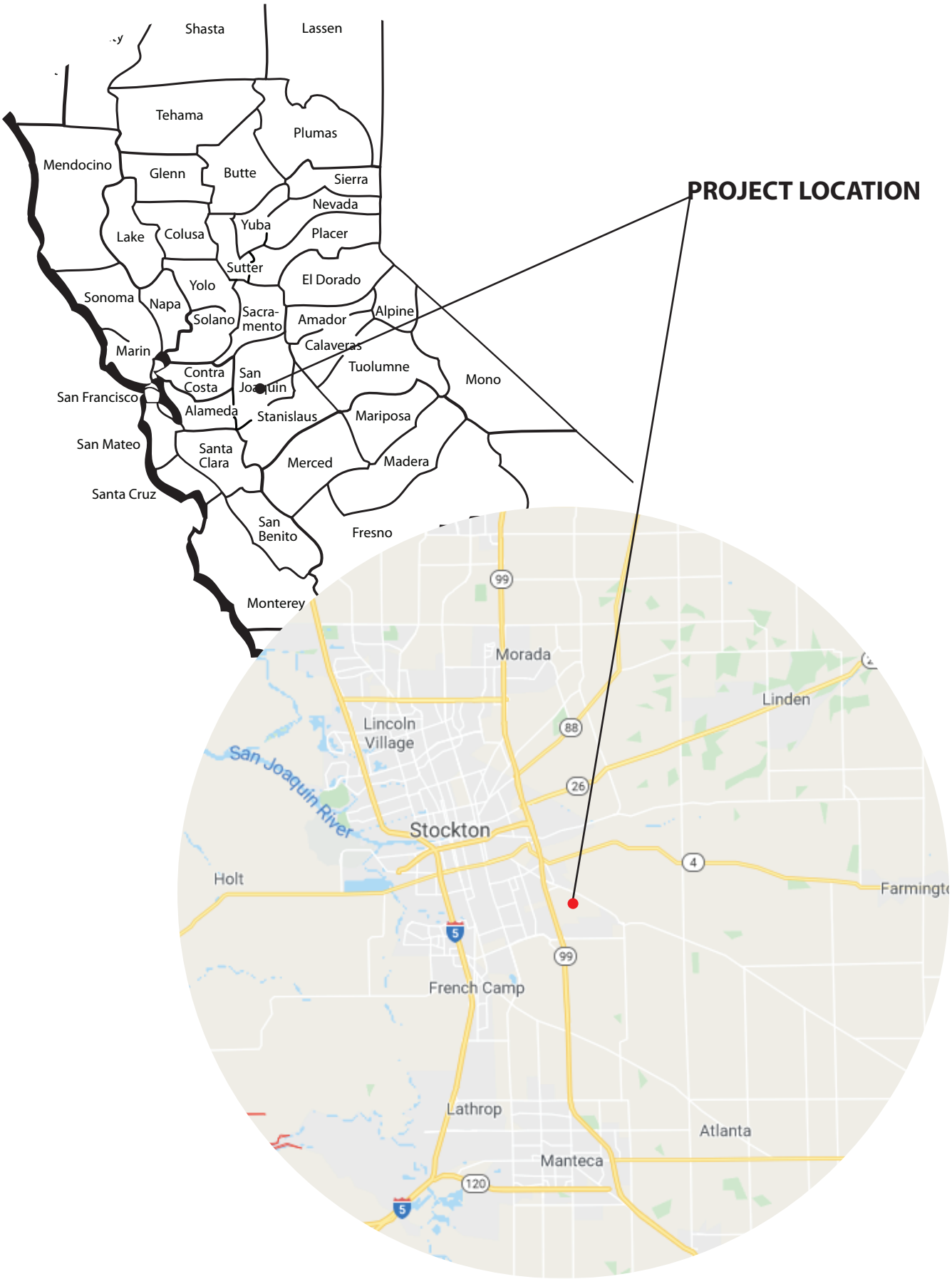

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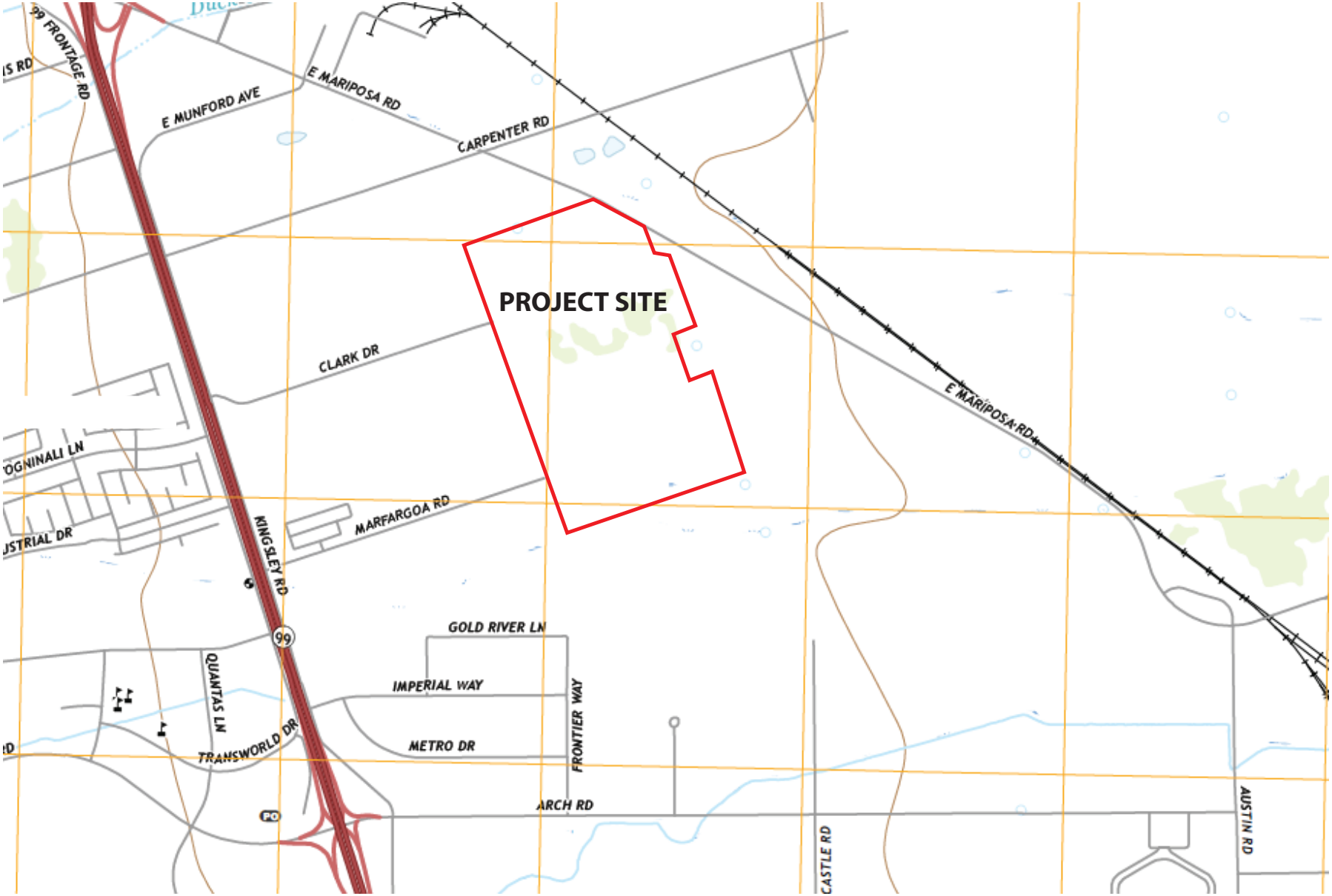
Figure 1-1
REGIONAL LOCATION MAP



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SOURCE: USGS Quadrangle Map, Stockton East, 2018. The project site is located in Township 1 N, Range 7 East and Sections 59 and 69 of the USGS Map.

Figure 1-2
USGS MAP

SOURCE: Google Maps

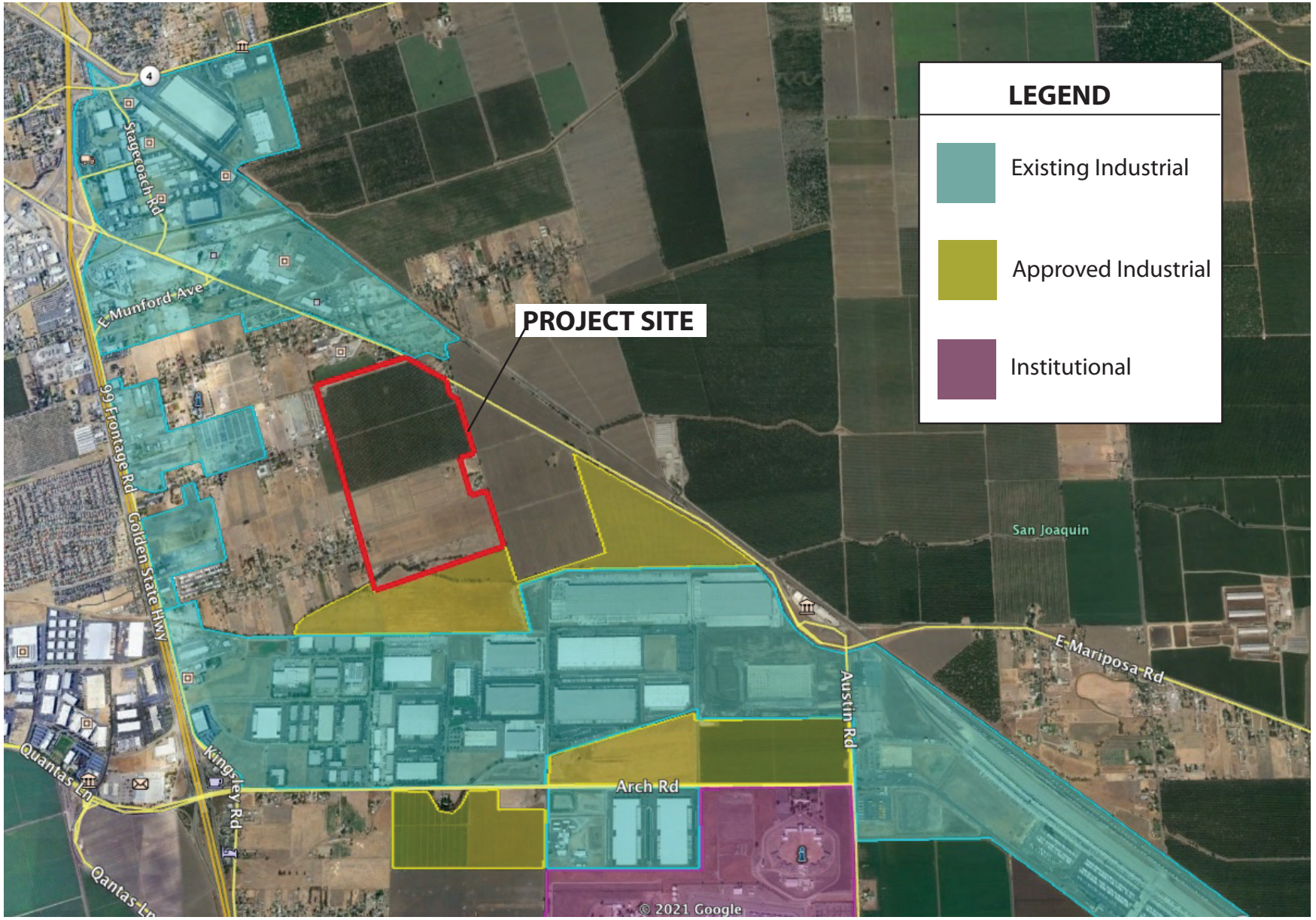

Figure 1-4
PROJECT AREA INDUSTRIAL DEVELOPMENT

2.0 REVISED SUMMARY OF EIR

This chapter of the Final EIR, beginning with Section 2.1 below, is a verbatim reproduction of Chapter 2.0 of the Draft EIR. This chapter contains a summary of the project description, the potential environmental effects and mitigation measures associated with the project, and the alternatives considered in the Draft EIR.

The Draft EIR has been subject to minor revisions in conjunction with the City's consideration of and response to the comments received from agencies and the public on the Draft EIR. These revisions are detailed in Chapter 4.0 of this Final EIR; any of those revisions that involve changes to the significant environmental effects, mitigation measures or alternatives as they were described in the Summary of the Draft EIR (Chapter 2.0) are shown in Table 2-1 later in this chapter in underline and/or ~~strikeout~~ as appropriate.

2.1 PROJECT DESCRIPTION

The Mariposa Industrial Park project proposes to develop a site consisting of nine parcels totaling 203.48 acres for light industrial land uses; as conceptually defined, the land uses would consist of "high-cube" warehouses. A "high-cube warehouse" typically has at least 200,000 gross square feet of floor area and has a ceiling height of approximately 24 feet or more; the warehouses are used primarily for the storage and/or consolidation of manufactured goods, and in some cases raw materials, prior to their distribution to retail locations or other warehouses. The conceptual site plan for the project site proposes the construction of seven buildings with a maximum height of 36 feet and floor area totaling 3,616,870 square feet of mostly warehouse space with some ancillary office space. Based on conceptual plans, an estimated total of 2,938 parking stalls would be provided throughout the project site, of which 1,831 stalls would be for automobiles and 1,107 stalls would be for trucks and trailers.

The project site may also accommodate uses that reflect ongoing developments in the warehousing and distribution industry and that vary from the conceptually defined project shown on Figure 3-2. Although the nature and configuration of such proposed uses may be different, the overall size, building square footage and traffic generation can be expected to fall within the range of those defined for the proposed project. Potential differences in environmental effect between the proposed project and variations on the project are identified and discussed in the affected chapters of the EIR.

Access to the proposed project would be from two driveways off Mariposa Road in the northeastern portion of the project site. The southernmost of the two driveways would provide the main access to the project site, leading to most of the proposed buildings. The northernmost driveway would provide access to the two northernmost buildings proposed on the site. The project would include restriping the Mariposa Road frontage to

accommodate turn pockets and acceleration/deceleration lanes. Utility service for the project site, including sewer and water would be provided by the City of Stockton from existing trunk lines adjacent to the site. The project would have an onsite storm drainage system, including collection lines and a detention basin in the southernmost portion of the project site. Runoff collected in the detention basin would be metered into North Littlejohns Creek when capacity is available in the creek. Regulated electrical, gas, and communication utilities would be extended to the project site from existing facilities in the area.

The project proposes a reorganization that would include annexation of the project site into the City of Stockton and detachment of the site from the Montezuma Fire District. For the proposed annexation, the City would pre-zone the entire project site Industrial, Limited (IL). The proposed pre-zoning is consistent with the current Industrial designation of the parcels in the Stockton General Plan. In addition to annexation and pre-zoning, the project would require City approval of a tentative subdivision map as well as site plan and design review. The San Joaquin LAFCo would be the agency with approval authority for the proposed annexation.

2.2 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The potentially environmental effects of the project are summarized in Table 2-1 at the end of this chapter, along with feasible mitigation measures proposed to minimize these effects. Table 2-1 provides an indication of the significance of impacts, both before and after application of mitigation measures. The project would contribute to several of the significant and unavoidable environmental effects identified in the Final GPEIR and accepted in the City's Statement of Overriding Considerations. As documented herein, with implementation of the proposed mitigation measures, nearly all the other potential environmental effects of the project would be reduced to a level that is less than significant. The project would involve any new significant and unavoidable environmental impacts, that is, impacts not adequately addressed in the certified GPEIR. While project avoidance and minimization measures would be implemented for the identified significant and unavoidable impacts, it is unknown if these measures would reduce the project's impacts to a level that would be less than significant.

2.3 NOP COMMENTS AND CONCERNS

CEQA Guidelines Section 15123(b)(2) states that an EIR summary shall identify areas of controversy known to the Lead Agency, including issues raised by agencies and the public. The most common method of identifying potential areas of controversy is through the issuance of a NOP, as the purpose of the NOP is to solicit guidance as to the scope and content of the environmental information to be included in the EIR. A NOP for this EIR was issued with a request for comment from agencies and the public. Table 1-1 lists the seven comment letters received in response to the NOP. Issues brought up in the comment letters included the following:

- AB 52 consultation procedures with tribes
- Project impacts on access to other properties in vicinity
- Traffic on Marfargoa Road
- Project construction and operational emissions and their potential health impacts
- Agricultural land conversion
- Applicability of local habitat conservation plan
- Potential groundwater contamination
- Privacy concerns

2.4 SUMMARY OF ALTERNATIVES

Chapter 19.0, Alternatives, identifies and discusses a range of reasonable alternatives to the project, including the "no project" alternative. The alternatives addressed in detail include:

- No Project
- Alternative Light Industrial Development
- Reduced Development

The No Project alternative is defined as the continuation of existing conditions on the project site, which means the site would not be annexed to the City and would remain undeveloped. This alternative would involve no action on the part of the City of Stockton, LAFCo, or other agencies. The site would remain in the unincorporated area, and future land use would be controlled by the existing County zoning for Agriculture. Selection of this alternative would eliminate all the significant environmental effects of the project. However, the continuation of the undeveloped state of the project site does not fulfill any of the basic objectives of the proposed project, and it would be inconsistent with the land use designations of the City of Stockton and San Joaquin County General Plans, both of which anticipate urban development. Also, this alternative may have potentially significant impacts resulting from use of agricultural chemicals, agricultural waste disposal, and dust from agricultural operations.

The Alternative Industrial Development alternative proposes development of the project site with an industrial use other than the high-cube warehousing proposed by the project. For this alternative, it is assumed that the City would annex the project site and pre-zone it as IL. Development under this alternative would generally have similar impacts to the proposed project. However, this alternative would not meet the objectives of the proposed project related to warehouse development. Depending on the type of industrial activity,

this alternative may have new or more severe impacts than the proposed project on issues such as hazardous materials and aesthetics.

The Reduced Development alternative would have the project site annexed to the City of Stockton and pre-zoned as under the proposed project. Proposed development would be like the proposed project; however, proposed development would be reduced to two buildings. This alternative would be partially consistent with the objectives of the proposed project while reducing its significant environmental effects on traffic, air quality, and noise, among others. Footprint effects of the project on biological, cultural, soil, and water resources may or may not be reduced. Effects on other issues would be the same as the proposed project and would likely require mitigation to reduce impacts.

Since the No Project Alternative would eliminate or avoid all potential environmental effects associated with the proposed project, it would be considered the environmentally superior alternative. CEQA Guidelines Section 15126.6(e)(2) requires that, if a No Project Alternative is identified as the environmentally superior alternative, then an EIR shall identify an environmentally superior alternative from the other alternatives. In accordance with this section, the Reduced Development Alternative would be considered the environmentally superior alternative after the No Project Alternative.

2.5 SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL IMPACTS

CEQA Guidelines Section 15126.2(b) states that an EIR shall discuss significant environmental effects that cannot be avoided if a proposed project is implemented. This includes significant impacts that can be mitigated but not reduce to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, the implications of these impacts, and the reasons why the project is being proposed notwithstanding their effects, should be described.

Table 2-1 of this EIR identifies all the potentially significant environmental effects of the project and the mitigation measures needed to address these effects. For most of these effects, the proposed mitigation measures would be effective in reducing the potentially significant environmental impacts of the project to levels that would be less than significant. The one exception is air quality impacts from project operations, which were determined to exceed thresholds for one pollutant (NOx) established to determine if project emissions would be a potentially significant impact. Avoidance and minimization measures to reduce pollutant emissions are proposed as part of the project. However, it is not known if these measures would reduce NOx emissions from project operations below the significance threshold, thereby making impacts less than significant.

2.6 SUMMARY OF OTHER CEQA ISSUES

CEQA Guidelines Section 15126.2(b) states that an EIR shall discuss significant environmental effects that cannot be avoided if a proposed project is implemented. This includes significant impacts that can be mitigated but not reduce to a level of

insignificance. Table 2-1 of this EIR identifies all the potentially significant environmental effects of the project and the mitigation measures recommended to address these effects. In all but one case, the proposed mitigation measures would be effective in reducing potential environmental effects to levels that would be less than significant.

Irreversible environmental commitments include energy consumption for project construction and operations and the use of non-renewable building materials for construction of buildings, parking spaces, and supporting infrastructure. Also, the project would involve an essentially irreversible loss of open space and the biological resource values associated with it.

The EIR analyzed the potential growth-inducing impacts of the project. Project impacts on population and housing would be less than significant, as the project is unlikely to induce population growth unplanned for in the Stockton General Plan; employees would likely be drawn from the existing Stockton metropolitan area population. Infrastructure already exists in the vicinity to which future development on the project site can connect; no major utility lines would be extended that may induce growth on nearby lands. Because of this, the project would not have a notable growth-inducing impact.

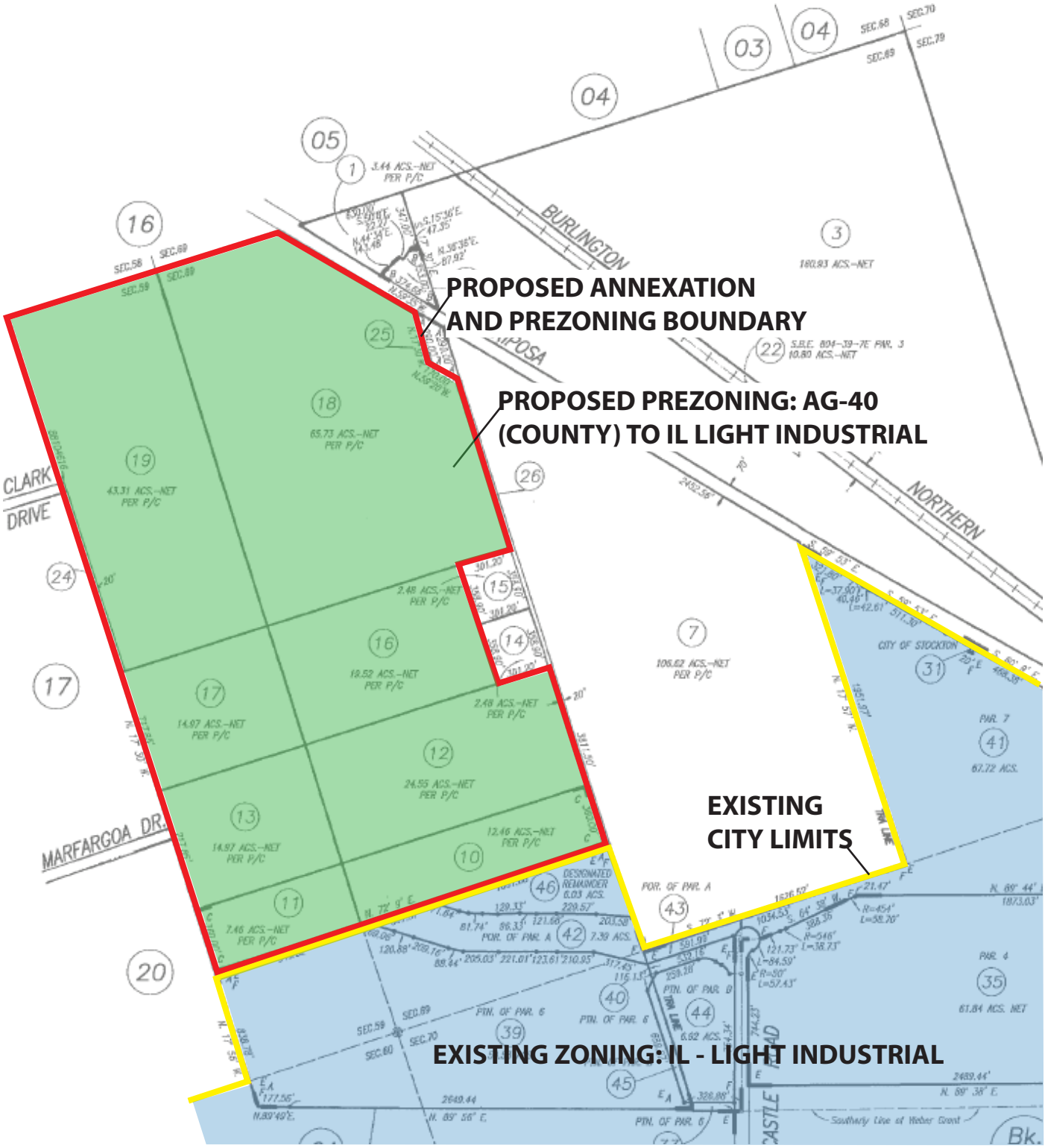

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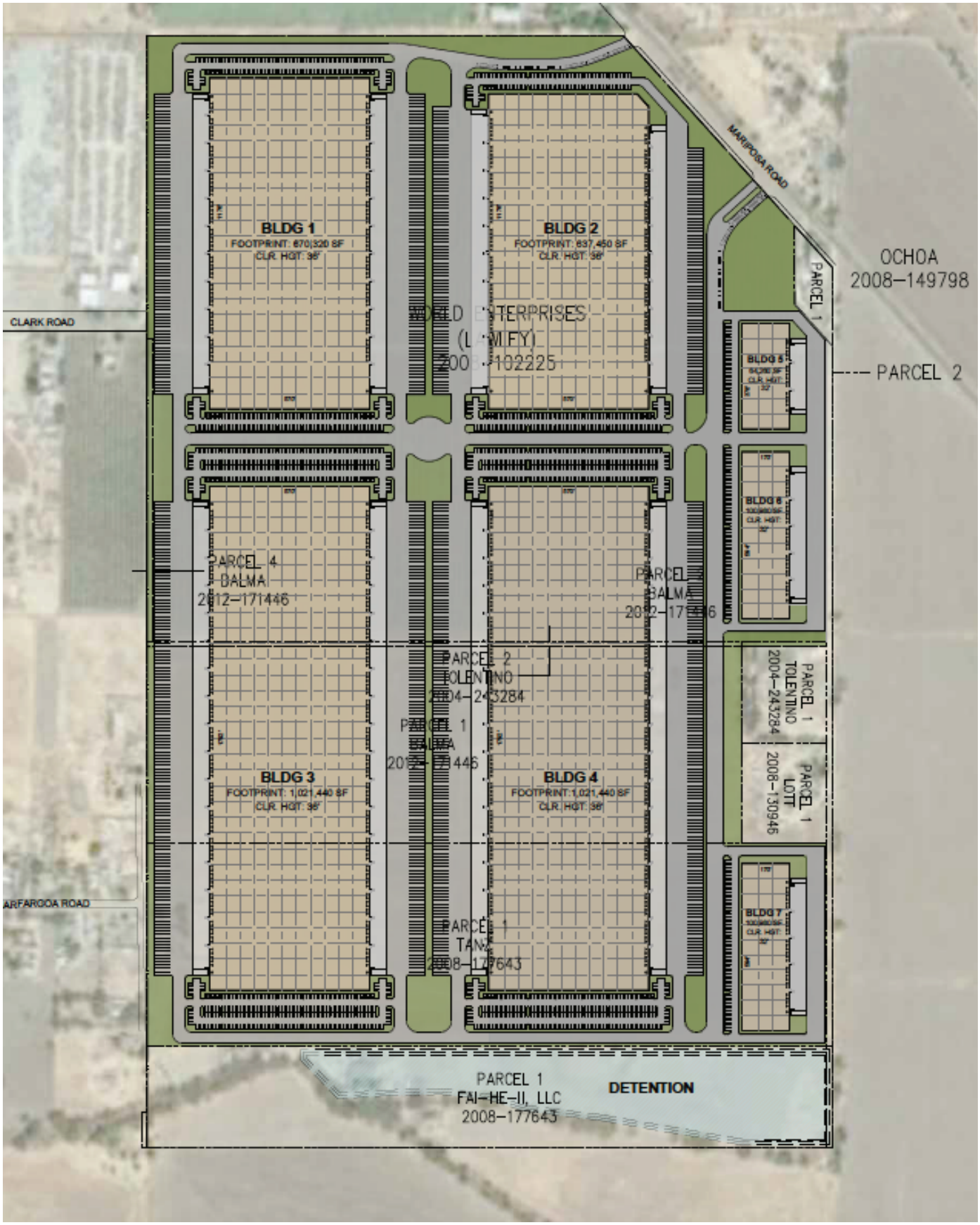
Figure 2-1
PROPOSED ANNEXATION AND PREZONING



SOURCE: Ware Malcomb

Figure 2-2
CONCEPTUAL SITE PLAN

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
4.0 AESTHETICS AND VISUAL RESOURCES			
Impact AES-1: Scenic Vistas. Views of scenic vistas already limited; project would not substantially interfere with views.	LS	None required.	-
Impact AES-2: Scenic Resources. There are no significant scenic resources on the project site. Potential riparian area along North Littlejohns Creek would only be minimally affected. No other scenic resources or scenic highways are in the area.	LS	None required.	-
Impact AES-3: Visual Character and Quality. Urban development would replace existing open space areas. New structures, site improvements, and landscaping would be designed and constructed to meet the aesthetic standards of the City of Stockton. Compliance with these standards would minimize project impacts on public views.	LS	None required.	-
Impact AES-4: Light and Glare. Lighting would be installed on properties that currently have none. Compliance with Stockton Municipal Code Sections 16.36.060(B) and 16.32.070 would minimize light and glare impacts.	LS	None required.	-
5.0 AGRICULTURAL RESOURCES			
Impact AG-1: Conversion of Farmland. The southern portion of the project site is classified as Farmland of Local Importance, which is not Farmland as defined by the CEQA Guidelines. However, the northern portion is classified as Farmland of Statewide Importance, which is Farmland. The City's Agricultural Lands Mitigation Program and participation in SJMSCP would compensate for impacts on Farmland but not avoid conversion. [This issue was analyzed in the Stockton General Plan 2040 EIR and was determined to be significant and unavoidable even with mitigating General Plan policies.]	S	None feasible.	SU
Impact AG-2: Agricultural Zoning and Williamson Act. The project site is zoned AG-40 (General Agriculture), which	LS	None required.	-

Notes: S = Significant, PS = Potentially Significant, LS = Less than Significant, NI = No Impact, SU = Significant and Unavoidable (SU impacts addressed in the Stockton General Plan EIR)

* Not mitigation measures, as they address issues not considered environmental impacts per CEQA Guidelines. Presented for informational purposes only.

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
holds land for future urban development. None of the parcels within the project site are under a Williamson Act contract.			
Impact AG-3: Indirect Conversion of Agricultural Lands. The project is in an area designated for urban development, and such development has occurred nearby. The project would not involve any activity that would indirectly convert other agricultural land to non-agricultural uses beyond land designated Industrial by the Stockton General Plan.	LS	None required.	-
6.0 AIR QUALITY			
Impact AIR-1: Air Quality Plans and Standards – Construction Emissions. Project construction emissions would not exceed SJVAPCD significance thresholds, thereby being consistent with adopted air quality plans. Dust emissions would be reduced through the required implementation of SJVAPCD Regulation VIII and the Indirect Source Rule.	LS	None required. The SJVAPCD, however, recommends the inclusion of the following mitigation measure into the project: To reduce impacts from construction-related diesel exhaust emissions, the Project should utilize the cleanest available off-road construction equipment, including the latest tier equipment.	-
Impact AIR-2: Air Quality Plans and Standards – Operational Emissions. Project operational emissions would not exceed SJVAPCD significance thresholds, except for NO_x. Compliance with SJVAPCD Rule 9510 and Additional Air Quality Improvement Measures (Appendix B) would reduce NO_x emission impacts. However, it cannot be determined if reduction through these measures would make project impacts less than significant. [This issue was analyzed in the Stockton General Plan 2040 EIR and was determined to be significant and unavoidable even with mitigating General Plan policies and EIR measures.]	S	None feasible.	SU
Impact AIR-3: Exposure of Sensitive Receptors to Criteria Pollutants. Rural residences are unlikely to be exposed to high pollutant concentrations. CO concentrations at one street intersection can be reduced through mitigation. NO_x	S	AIR-1: The project applicant, to reduce carbon monoxide concentrations to an acceptable level, shall contribute fair-share costs to an improvement on the Mariposa Road and Carpenter Road intersection that would widen the northeast-bound Carpenter Road	SU

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
emissions within an area designated a disadvantaged community would be reduced by SJVAPCD rules and Additional Air Quality Improvement Measures (Appendix B). However, it cannot be determined if this reduction would have an impact on the disadvantaged community that is less than significant. [This issue was analyzed in the Stockton General Plan 2040 EIR and was determined to be significant and unavoidable even with mitigating General Plan policies and EIR measures.]		approach to include an exclusive northeast-bound-to northwest-bound left-turn lane, and a combined through/right-turn lane.	
Impact AIR-4: Exposure of Sensitive Receptors to Toxic Air Contaminants. Diesel PM generated by project operations. Health Risk Assessment conducted for project indicates diesel PM emissions would not adversely affect nearby residences.	LS	None required.	-
Impact AIR-5: Odors and Other Emissions. Main odor source would be vehicle emissions, which would be localized and would dissipate rapidly.	LS	None required.	-
7.0 BIOLOGICAL RESOURCES			
Impact BIO-1: Special-Status Species and Habitats. Project development would involve the potential for impacts on foraging habitat for Swainson's hawk and burrowing owl and some potential for nesting impacts. Seasonal wetlands may support vernal pool fairy shrimp.	PS	BIO-1: The developer shall apply to the San Joaquin Council of Governments (SJCOG) for coverage under the San Joaquin County Multi-Species Open Space and Habitat Conservation Plan (SJMSCP). The project site shall be inspected by the SJMSCP biologist, who will recommend which Incidental Take Minimization Measures (ITMMs) set forth in the SJMSCP should be implemented. The project applicant shall pay the required SJMSCP fee, if any, and be responsible for the implementation of the specified ITMMs.	LS
Impact BIO-2: Riparian and Other Sensitive Habitats. Riparian corridor along North Littlejohns Creek would be minimally affected by installation of an outfall. No other sensitive habitats would be affected.	LS	None required	-
Impact BIO-3: State and Federally Protected Wetlands. North Littlejohns Creek, a ditch, and five seasonal wetlands have been identified as potential Waters of the U.S or State	PS	BIO-2: Prior to the start of construction work in the area where seasonal wetlands have been identified, the project developer shall conduct a wetland delineation identifying jurisdictional Waters of the U.S. and wetlands. The delineation shall be verified by the U.S.	LS

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* Not mitigation measures, as they address issues not considered environmental impacts per CEQA Guidelines. Presented for informational purposes only.

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
wetlands.		Army Corps of Engineers (Corps). The delineation shall be used to determine if any project work will encroach upon any jurisdictional water, thereby necessitating an appropriate permit. For any development work that may affect a delineated jurisdictional Water, the project developer shall obtain any necessary permits from the U.S. Army Corps of Engineers prior to the start of development work within these locations. Depending on the Corps permit issued, the project applicant shall also apply for a Section 401 Water Quality Certification from the Central Valley Regional Water Quality Control Board. If the seasonal wetlands are avoided, , or if phased development occurs in areas where no wetlands have been identified, then this mitigation measure does not apply. BIO-3: Prior to the start of construction work in North Littlejohns Creek, the project developer shall obtain any necessary permits from the California Department of Fish and Wildlife and the Central Valley Flood Protection Board. The project developer shall comply with all conditions attached to any required permit. BIO-4: Prior to the start of construction work in the area where seasonal wetlands have been identified, the project developer shall obtain any necessary Waste Discharge Requirements from the Central Valley Regional Water Quality Control Board. Pursuant to the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan, the filling of seasonal wetlands containing vernal pool invertebrates shall be delayed until the wetlands are dry and SJCOG biologists can collect the surface soils from the wetlands, to store them for future use on off-site seasonal wetland creation on SJOCG preserve lands. If the seasonal wetlands are avoided, then this mitigation measure does not apply.	
Impact BIO-4: Migratory Fish and Wildlife Habitats. Several trees in the project vicinity that are suitable for nesting raptors and other protected bird species, including migratory species.	PS	Implementation of Mitigation Measure BIO-1.	LS
Impact BIO-5: Local Biological Requirements. Valley oak, a species protected by City's Heritage Tree Ordinance, was identified along North Littlejohns Creek.	PS	BIO-5: If removal of any oak tree on the project site is required, a certified arborist shall survey the oak trees proposed for removal to determine if they are Heritage Trees as defined in Stockton Municipal Code Chapter 16.130. The arborist report with its findings shall be submitted to the City's Community Development	LS

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		Department. If Heritage Trees are determined to exist on the property, removal of any such tree shall require a permit to be issued by the City in accordance with Stockton Municipal Code Chapter 16.130. The permittee shall comply with all permit conditions, including tree replacement at specified ratios.	
Impact BIO-6: Habitat Conservation Plans. Project would participate in the San Joaquin County Multi-Species Open Space and Habitat Conservation Plan	PS	Implement Mitigation Measure BIO-1.	LS
8.0 CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES			
Impact CULT-1: Historical Resources. No historical resources have been recorded on the project site.	NI	None required.	-
Impact CULT-2: Archaeological and Tribal Cultural Resources. No archaeological or tribal cultural resources were identified on the project site. However, a Sacred Land has been recorded nearby, and it is possible that unknown cultural resources may be uncovered during project construction.	PS	CULT-1: If any subsurface archaeological resources, including human burials and associated funerary objects, are encountered during construction, all construction activities within a 50-foot radius of the encounter shall be immediately halted until a qualified archaeologist can examine these materials and evaluate their significance. The City shall be immediately notified in the event of a discovery. If burial resources or tribal cultural resources are discovered, the City shall notify the appropriate tribal representative, who may examine the materials with the archaeologist and advise the City as to their significance. The archaeologist, in consultation with the tribal representative if contacted, shall recommend mitigation measures needed to reduce potential cultural resource effects to a level that is less than significant in a written report to the City, with a copy to the tribal representative. The City shall be responsible for implementing the report recommendations. Avoidance is the preferred means of disposition of tribal cultural resources. The contractor shall be responsible for retaining qualified professionals, implementing recommended mitigation measures, and documenting mitigation efforts in written reports to the City.	LS
Impact CULT-3: Human Burials. The Yokuts representative indicated that Native American burials have occurred in the project vicinity. CEQA Guidelines Section 15064.5(e) and the	PS	CULT-2: If project construction encounters evidence of human burial or scattered human remains, the contractor shall immediately notify the County Coroner and the City, which shall in turn notify	LS

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Stockton Municipal Code describe procedures to be followed when human remains are uncovered in a location outside a dedicated cemetery. Additional mitigation is prescribed for treatment of Native American remains.		the appropriate tribal representative. The City shall notify other federal and State agencies as required. The City will be responsible for compliance with the requirements of California Health and Safety Code Section 7050.5 and with any direction provided by the County Coroner. If the human remains are determined to be Native American, the County Coroner shall notify the Native American Heritage Commission, which will notify and appoint a Most Likely Descendant. The Most Likely Descendant will work with the archaeologist to decide the proper treatment of the human remains and any associated funerary objects in accordance with California Public Resources Code Sections 5097.98 and 5097.991. Avoidance is the preferred means of disposition of the burial resources.	
9.0 GEOLOGY, SOILS, AND MINERAL RESOURCES			
Impact GEO-1: Faulting and Seismicity. There are no active or potentially active faults within or near the project site. The project site would be exposed to seismic shaking, but compliance with the adopted California Building Code would minimize seismic hazards.	LS	None required.	-
Impact GEO-2: Other Geologic Hazards. The project site is not prone to landslide hazards or subsidence. Liquefaction and other soil instability on the project site are considered unlikely, but no information specific to the site is available.	LS	None required.	-
Impact GEO-3: Soil Erosion. Project construction activities would loosen the soil, leaving it exposed to potential water and wind erosion. Project would be required to obtain a Construction General Permit, which has conditions that would reduce soil erosion impact, as would the City's Storm Water Management Program, the Stockton Municipal Code, and SJVAPCD Regulation VIII.	LS	None required.	-
Impact GEO-4: Expansive Soils. Project site soils have high shrink-swell potential.	LS	None required.	-

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Impact GEO-5: Paleontological Resources and Unique Geological Features. The project site does not contain unique geological features or any known paleontological resources; however, project construction could unearth previously unknown paleontological materials of significance.	PS	GEO-2: If any subsurface paleontological resources are encountered during construction, all construction activities within a 50-foot radius of the encounter shall be immediately halted until a qualified paleontologist can examine these materials, initially evaluate their significance and, if potentially significant, recommend measures on the disposition of the resource. The City shall be immediately notified in the event of a discovery. The contractor shall be responsible for retaining qualified professionals, implementing recommended mitigation measures, and documenting mitigation efforts in written reports to the City.	LS
Impact GEO-6: Access to Mineral Resources. There are no identified mineral resource areas on the project site.	NI	None required.	-
10.0 GREENHOUSE GAS EMISSIONS			
Impact GHG-1: Project GHG Construction Emissions and Consistency with Applicable Plans and Policies. Unmitigated construction GHG emissions would be reduced by Additional Air Quality Improvement Measures (Appendix B), compliance with applicable State and SJVAPCD rules and regulations, and additional mitigation. However, since these measures cannot be precisely quantified, and no quantified thresholds applicable to GHG construction emissions are available, it cannot be stated with certainty that GHG emissions would be reduced to a level that is considered less than significant. [GHG construction emissions were not specifically analyzed in the Stockton General Plan 2040 EIR.]	PS	GHG-1: The project shall implement the Off-Road Vehicles Best Management Practices specified in the Stockton Climate Action Plan. At least three (3) percent of the construction vehicle and equipment fleet shall be powered by electricity. Construction equipment and vehicles shall not idle their engines for longer than three (3) minutes.	SU
Impact GHG-2: Project GHG Operational Emissions and Consistency with Applicable Plans and Policies. Unmitigated operational GHG emissions would be reduced by project features, compliance with regulations consistent with Stockton Climate Action Plan and with State and SJVAPCD plans, and Additional Air Quality Improvement Measures (Appendix B).	LS	None required.	-

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
11.0 HAZARDS AND HAZARDOUS MATERIALS			
Impact HAZ-1: Hazardous Material Transportation and Storage. Proposed warehouses may store finished goods or raw materials considered hazardous. Compliance with applicable local, state, and federal regulations would minimize impacts.	LS	None required.	-
Impact HAZ-2: Hazardous Material Releases. Project construction and operations create a potential for hazardous material releases. The required SWPPP and other typical contractor practices shall minimize construction impacts. Compliance with applicable local, state, and federal regulations would minimize operational impacts. No schools are located within one-quarter mile of the project site.	LS	None required.	-
Impact HAZ-3: Hazardous Material Sites. No active hazardous material sites were identified on or adjacent to project site. Soil sampling as part of a Phase II Environmental Site Assessment did not indicate soil contamination on the project site.	LS	None required.	-
Impact HAZ-4: Airport Hazards. The project site is within Compatibility Zone 7b as established by the Stockton Metropolitan Airport ALUCP. Proposed development would be consistent with allowable land uses in this zone.	LS	None required.	-
Impact HAZ-5: Interference with Emergency Vehicle Access and Evacuations. Neither project construction nor operations would require closure or any major restriction on use of adjacent roads. Once construction work is completed, project development would not obstruct any roads.	LS	None required.	-
Impact HAZ-6: Wildfire Hazards. Project is in an urbanizing area and has not been designated a fire hazard area by Cal Fire.	LS	None required.	-

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
12.0 HYDROLOGY AND WATER QUALITY			
Impact HYDRO-1: Surface Water Resources and Quality. Construction activities could loosen soils that could eventually enter nearby surface waters, as well as debris and deposits from project operations. Compliance with applicable water quality plans, permits, and regulations would minimize impacts. Project development will be required to submit storm water management plans for the project that shall include construction erosion and sedimentation controls as well as post-construction Best Management Practices.	LS	None required.	-
Impact HYDRO-2: Groundwater Resources and Quality. Project would be served by the City's water system, which relies in part on groundwater. Project can be accommodated from City's existing supplies without requiring additional groundwater. Project would be subject to Groundwater Sustainability Plan for basin, which include direct and in-lieu recharge projects.	LS	None required.	-
Impact HYDRO-3: Drainage Patterns and Runoff. Project would alter existing drainage patterns and runoff volumes, but project features would reduce impacts. Issues associated with water quality of runoff would be mitigated.	LS	None required.	-
Impact HYDRO-4: Release of Pollutants in Flood, Tsunami, and Seiche Zones. Only a small portion of the project site is within a FEMA-designated 100-year floodplain, and no buildings using or storing hazardous materials would be located there. The project site would not be subject to flooding from dam or levee failure or from seiches or tsunamis.	LS	None required.	-
Impact HYDRO-5: Consistency with Water Quality and Groundwater Management Plans. The project would comply with applicable water quality plans and be consistent with the Groundwater Sustainability Plan for the Eastern San Joaquin Subbasin.	LS	None required.	-

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
13.0 LAND USE, POPULATION, AND HOUSING			
Impact LUP-1: Division of Communities. The area surrounding the project site is a combination of vacant parcels, agricultural uses, and rural residential and commercial development. This does not constitute a community that could be divided by the project.	NI	None required.	-
Impact LUP-2: Conflict with Applicable Plans, Policies, and Regulations. The project would be consistent with the policies of the Stockton General Plan. Project may conflict with LAFCo policies preserving agricultural land, but project would be subject to the City's Agricultural Lands Mitigation Program. Project site is consistent with development standards for Compatibility Zone 7b of the Stockton Metropolitan Airport ALUCP.	LS	None required.	-
Impact LUP-3: Inducement of Population Growth. While the warehouse development would provide employment opportunities, these opportunities are expected to be filled mainly by existing residents. The project would not induce population growth beyond that anticipated in the Stockton General Plan.	LS	None required.	-
Impact LUP-4: Displacement of Housing and People. The project site has single-family residences that would be demolished. However, there is available housing in the Stockton area to accommodate any displaced persons.	LS	None required.	-
14.0 NOISE			
Impact NOISE-1: Increase in Noise Levels in Excess of Standards-Traffic. Traffic generated under Existing Plus Approved Projects Plus Project conditions would increase traffic noise levels along segments of Mariposa Road that would exceed City Noise Element standards. [This issue was analyzed in the Stockton General Plan 2040 EIR and was determined to be significant and unavoidable.]	PS	None available.	SU

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Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Impact NOISE-2: Increase in Noise Levels in Excess of Standards-Other Project Noise. Noise from trailer parking and truck loading/unloading could affect nearby sensitive land uses, mainly residences.	PS	NOISE-1: Sound walls and/or berms 10 feet in height shall be required where existing residential uses or residentially zoned areas are located adjacent to the project site. Figure 3 of the project noise study (Figure 14-2 of ~~this EIR~~ the DEIR) shows the locations of the recommended sound walls based on the proposed conceptual plan. Site plan modifications, and/or additional noise analysis by a qualified acoustical consultant may warrant changes to these requirements, assuming that compliance with City noise standards is maintained.	LS
Impact NOISE-3: Increase in Noise Levels in Excess of Standards-Construction. Construction activities may potentially increase ambient noise above City standards at nearby residences.	PS	NOISE-2: Construction activities associated with the project shall adhere to the requirements of the City of Stockton Municipal Code with respect to hours of operation. The applicant shall ordinarily limit construction activities to the hours of 7:00 a.m. to 7:00 p.m., Monday through Saturday. No construction shall occur on Sundays or national holidays without a written permit from the City. All construction equipment shall be in good working order and shall be fitted with factory-equipped mufflers.	LS
Impact NOISE-4: Groundborne Vibrations. Earth-moving equipment may generate some groundborne vibrations, but not at levels distinctly perceptible by sensitive receptors or threatening to structures.	LS	None required.	-
Impact NOISE-5: Airport and Airstrip Noise. The project site is outside noise contours established by the Stockton Metropolitan Airport ALUCP. No private airstrips are in the vicinity.	NI	None required.	-
15.0 PUBLIC SERVICES AND RECREATION			
Impact PSR-1: Fire Protection Service. New or expanded facilities may be required in the future, but project would not trigger this requirement. Public Facility Fees will be paid, and future facilities would be subject to CEQA review. Recommended Fire Service Protection Improvement Measures discussed in the EIR include Early Suppression Fast Response sprinkler systems.	LS	None required.	-

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Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Impact PSR-2: Police Protection Services. New or expanded facilities may be required in the future, but project would not trigger this requirement. Public Facility Fees will be paid, and future facilities would be subject to CEQA review.	LS	None required.	-
Impact PSR-3: Schools. The project involves industrial development, which does not directly generate new student load. New industrial development would be responsible for the payment of school impact fees.	LS	None required.	-
Impact PSR-4: Parks and Recreational Services. The project would not involve any direct effects on parks or recreational facilities, nor would it generate a demand for new or expanded recreational facilities or services.	LS	None required.	-
Impact PSR-5: Other Public Facilities. The project would not generate additional demand for library, hospital, and courthouse services, and therefore would not require new or expanded facilities.	LS	None required.	-
16.0 TRANSPORTATION			
Impact TRANS-1: Motor Vehicle Transportation Plans-Intersections. Under Existing Plus Approved Projects Plus Project conditions, only four intersections affected by the project would not operate at LOS above minimally acceptable City of Stockton standards. Recommended Intersection Improvement Measures would improve LOS at two intersections, while other two intersections would not require improvements. LOS is not a measure of CEQA impacts.	LS	* Recommended Improvement TRANS-1: The project applicant should contribute fair-share costs to an improvement on the Mariposa Road and 8th Street/Farmington Road intersection that would split the northeast-bound combined through/right-turn lane into an exclusive northeast-bound through lane and a "free" northeast-bound-to-southeast-bound right-turn lane. * Recommended Improvement TRANS-2: The project applicant should contribute fair-share costs to an improvement on the Mariposa Road and Carpenter Road intersection that would widen the northeast-bound Carpenter Road approach to include an exclusive northeast-bound-to northwest-bound left-turn lane, and a combined through/right-turn lane.	-
Impact TRANS-2: Motor Vehicle Transportation Plans-Roadway Segments. Under Existing Plus Approved Projects Plus Project conditions, only two roadway segments affected by the project would not operate at LOS above minimally	LS	* Recommended Improvement TRANS-3: The project applicant should contribute fair-share costs to an improvement on the segment of Mariposa Road from SR 99 to 8th Street/Farmington Road that would widen the portions of this roadway segment that are currently	-

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Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
acceptable City of Stockton standards. Recommended Roadway Segment Improvement Measure would improve LOS at one segment, while other segment would not require improvements. LOS is not a measure of CEQA impacts.		one lane in each direction to two lanes in each direction.	
Impact TRANS-3: Motor Vehicle Transportation Plans-Ramp Junctions. Under Existing Plus Approved Projects Plus Project conditions, three ramp junctions affected by the project would not operate at LOS above minimally acceptable City of Stockton standards. However, these facilities would operate within standards of the City's Transportation Impact Guidelines. LOS is not a measure of CEQA impacts.	LS	None required.	-
Impact TRANS-4: Motor Vehicle Transportation Plans-Truck Routes. Project proposes STAA truck routes; however, this would not conflict significantly with motor vehicle transportation plans applicable to trucks.	LS	None required.	-
Impact TRANS-5: Conflicts with Non-Motor Vehicle Transportation Plans. The project would not conflict with non-motor vehicle transportation plans or their implementation.	LS	None required.	-
Impact TRANS-6: Consistency with CEQA Guidelines Section 15064.3(b). The project would generate increases in VMT. Mitigation is expected to reduce the amount of VMT generated, but it would not be reduced by a level indicated by Stockton General Plan standard. [This issue was not analyzed in the Stockton General Plan 2040 EIR.]	S	TRANS-1: The project shall provide "end-of-trip" facilities for bicycle riders to encourage the use of bicycling as a viable form of travel to destinations, especially to work. End-of-trip facilities shall include showers, secure bicycle lockers, and changing spaces. TRANS-2: The project shall implement an employer-sponsored vanpool or shuttle. A vanpool will usually service employees' commute to work, while a shuttle will service nearby transit stations and surrounding commercial centers. Employer-sponsored vanpool programs entail an employer purchasing or leasing vans for employee use, and often subsidizing the cost of at least program administration. Scheduling is within the employer's purview, and rider charges shall be set on the basis of vehicle and operating cost.	SU
Impact TRANS-7: Safety Hazards. The traffic impact study did not identify any traffic hazards that would result from the project. Project construction would involve routine but potential traffic hazards, but contractors will be required to	LS	None required.	-

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Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
provide traffic safety control as warranted.			
Impact TRANS-8: Emergency Access. Adequate emergency access would be provided to the project site.	LS	None required.	-
17.0 UTILITIES AND ENERGY			
Impact UTIL-1: Wastewater Services and Facilities. City has adequate capacity at its treatment plant to accommodate project. Existing sewer lines are in vicinity.	LS	None required.	-
Impact UTIL-2: Water Services and Facilities. City has adequate water supplies for project. Existing water lines are in vicinity.	LS	None required.	-
Impact UTIL-3: Stormwater Services and Facilities. Project would not connect to City's drainage system, but would provide own system that would collect and discharge runoff to North Littlejohns Creek without causing downstream flooding or reduced water quality.	LS	None required.	-
Impact UTIL-4: Solid Waste. Existing landfills in the County would have adequate capacity to accommodate project solid waste. The project would comply with applicable federal, state, and local statutes and regulations related to solid waste.	LS	None required.	-
Impact UTIL-5: Energy and Telecommunications Facilities. Existing electrical, natural gas, and telephone lines are available near the project site.	LS	None required.	-
Impact UTIL-6: Project Energy Consumption. The project would not consume energy in a manner that is wasteful, inefficient, or unnecessary.	LS	None required.	-

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3.0 COMMENTS ON DRAFT EIR AND LEAD AGENCY RESPONSES TO COMMENTS

This chapter displays the six letters received by the City that provide comments on the Draft EIR (DEIR). Three of the written comments were received by the City during the public review period for the DEIR, and three comments were received after the close of the review period. No other comments were received. The Lead Agency's written responses to those comments, are provided following each comment letter. The City's responses to substantive comments were provided to the commenting agencies at least 10 days before the planned certification of this document.

A total of six written communications, all from public agencies, were received during the review period. A list of the agencies submitting written comments is shown below.

Comments Received on the Public Review Draft EIR

1. California Air Resources Board
2. San Joaquin Valley Air Pollution Control District
3. California Department of Justice
4. Montezuma Fire District
5. San Joaquin County
6. Sierra Club

CEQA Guidelines Section 15088 states that the Lead Agency's responses shall describe the disposition of significant environmental issues raised in comments on the Draft EIR. In particular, the major environmental issues raised when the Lead Agency's position is at variance with recommendations, and objections raised in the comments, must be addressed in detail, giving reasons why specific comments and suggestions were not accepted. There must be good-faith, reasoned analysis in response to comments; conclusory statements unsupported by factual information are not sufficient.

The written comments received on the Public Review Draft EIR are shown on the following pages. Each comment letter is followed by the Lead Agency's response(s). Responses are provided to the individual comments, usually paragraphs, made in each comment letter, in sequence. Each comment letter is assigned a number code, shown above, and each substantive comment within the numbered letter is assigned an alphabetical code. Thus, each comment has a unique code made up of the letter number and the comment code. For example, comment "2A" is the first comment made by the San Joaquin Valley Air Pollution Control District.

CALIFORNIA
AIR RESOURCES BOARD

Gavin Newsom, Governor
Jared Blumenfeld, CalEPA Secretary
Liane M. Randolph, Chair

October 8, 2021

Nicole Moore
Senior Planner
City of Stockton Community Development Department
345 N. El Dorado
Stockton, California 95202
nicole.moore@stocktonca.gov

Dear Nicole Moore:

Thank you for providing the California Air Resources Board (CARB) with the opportunity to comment on the Mariposa Industrial Park Project (Project) Draft Environmental Impact Report (DEIR), State Clearinghouse No. 2020120283. The Project is proposed within the City of Stockton (City), California, which is the lead agency for California Environmental Quality Act (CEQA) purposes.

As part of the Project, the City plans to annex approximately 203 acres of land from the County of San Joaquin. Once annexed, the City will rezone the Project site from General Agriculture to Industrial Limited to construct and operate seven light industrial buildings totaling 3,616,870 square feet. Although the Project's future occupant(s) are unknown, the City expects that the proposed light industrial buildings would be occupied by a high-cube warehouse operator(s). Anticipated uses of the proposed light industrial buildings may include transload, short-term storage, cold storage, fulfillment center, or parcel hub uses. Once in operation, the Project is expected to generate 12,370 daily vehicle trips; the DEIR did not specify the number of daily truck trips out of the total daily vehicle trips that would serve the Project.

1A

If approved, the Project will expose nearby communities to elevated levels of air pollution beyond the existing baseline emissions at the Project site. Residences are located north, east, and west of the Project, with the closest homes located within 50 feet of the Project's western boundary. In addition to residences, Hamilton Elementary School, Monroe Elementary School, and Montezuma Elementary School are located within 2 miles of the Project. These residences are already exposed to toxic diesel particulate matter (diesel PM) emissions generated by existing industrial buildings, vehicle traffic along State Route 99 (SR-99), and rail traffic along existing rail lines.

1B

The State of California has placed additional emphasis on protecting local communities from the harmful effects of air pollution through the passage of Assembly Bill 617 (AB 617) (Garcia, Chapter 136, Statutes of 2017). AB 617 is a significant piece of air quality legislation that highlights the need for further emission reductions in communities with high exposure burdens, like those in which the Project is located. Diesel PM emissions generated during the construction and operation of the Project would negatively impact neighboring communities, which are already impacted by air pollution from existing industrial buildings, vehicle traffic along SR-99, and local rail traffic.

1C

COMMENT NO. 1
CALIFORNIA AIR RESOURCES BOARD

Through its authority under Health and Safety Code section 39711, the California Environmental Protection Agency (CalEPA) is charged with the duty to identify disadvantaged communities. CalEPA bases its identification of these communities on geographic, socioeconomic, public health, and environmental hazard criteria (Health and Safety Code, section 39711, subsection (a)). In this capacity, CalEPA currently defines a disadvantaged community, from an environmental hazard and socioeconomic standpoint, as a community that scores within the top 25 percent of the census tracts, as analyzed by the California Communities Environmental Health Screening Tool Version 3.0 (CalEnviroScreen). CalEnviroScreen uses a screening methodology to help identify California communities currently disproportionately burdened by multiple sources of pollution. The census tract containing the Project is within the top 1 percent for Pollution Burden[1] and is considered a disadvantaged community; therefore, the City must ensure that the Project does not adversely impact neighboring disadvantaged communities. 1D

Industrial development, such as those proposed under the Project, can result in high daily volumes of heavy-duty diesel truck traffic and operation of on-site equipment (e.g., forklifts and yard tractors) that emit toxic diesel emissions, and contribute to regional air pollution and global climate change.[2] Due to the Project's proximity to residences already disproportionately burdened by multiple sources of pollution, CARB's comments below express concerns with the potential cumulative air quality impacts associated with the construction and operation of the Project. To protect the health of these communities, City and applicant have an obligation to construct and operate the Project using the zero-emission technologies provided in this letter. 1E

The DEIR Does Not Specify if the Project Would be Used for Cold Storage

The City does not specify in the DEIR if the Project would include the operation of on-site cold storage uses. Consequently, air pollutant emissions associated with cold storage operation were not included in the DEIR. Should the Project later include cold storage uses, residences near the Project-site could be exposed to significantly higher levels of toxic diesel PM and nitrogen oxides (NOx), and greenhouse gases than trucks and trailers without TRUs. To ensure TRUs will not operate within the Project site without first quantifying and mitigating their potential impacts, the City must include one of the following design features in the Final Environmental Impact Report (FEIR): 1F

1. Pollution Burden represents the potential exposure to pollutants and the adverse environmental conditions caused by pollution.
2. With regard to greenhouse gas emissions from this project, CARB has been clear that local governments and project proponents have a responsibility to properly mitigate these impacts. CARB's guidance, set out in detail in the Scoping Plan issued in 2017, makes clear that in CARB's expert view, local mitigation is critical to achieving climate goals and reducing greenhouse gases below levels of significance.

COMMENT NO. 1
CALIFORNIA AIR RESOURCES BOARD

- A Project design measure requiring contractual language in tenant lease agreements that prohibits tenants from operating TRUs within the Project-site; or
- A condition requiring a restrictive covenant over the parcel that prohibits the applicant's use of TRUs on the property, unless the applicant seeks and receives an amendment to its conditional use permit allowing such use.

If the City later chooses to allow TRUs to operate within the Project site, the City must re-model the Project's air quality impact analysis and HRA to account for potential health risks. The updated air quality impact analysis and HRA should include the following air pollutant emission reduction measures: 1F

- Include contractual language in tenant lease agreements that requires all loading/unloading docks and trailer spaces to be equipped with electrical hookups for trucks with TRU or auxiliary power units. This requirement will substantially decrease the amount of time that a TRU powered by a fossil-fueled internal combustion engine can operate at the Project-site. Use of zero-emission all-electric plug-in TRUs, hydrogen fuel cell transport refrigeration, and cryogenic transport refrigeration are encouraged and can also be included in lease agreements.[3]
- Include contractual language in tenant lease agreements that requires all TRUs entering the project site to be plug-in capable.

The City Uses Inappropriate Trip Lengths When Modeling the Project's Air Quality Impacts from Mobile Sources

The Project's operational mobile source air pollutant emissions may have been underestimated in the DEIR by using vehicle trip lengths unsupported by substantial evidence. The Project's operational air pollutant emissions were estimated using the California Emissions Estimator Model (CalEEMod). Based on CARB's review of the CalEEMod outputs found in Appendix C (Air Quality Modeling Results) of the DEIR, the City relied on CalEEMod vehicle trip length defaults to estimate the Project's mobile source air pollutant emissions. After applying these defaults, 59 percent of the Project's total vehicle trips would have a travel distance of 9.5 miles and 41 percent of the Project's total vehicle trips would have a travel distance 15 miles. 1G

The DEIR does not specify the distance workers and truck drivers would need to travel to operate the proposed light industrial buildings. The Project is located within a short distance from the Port of Stockton and other industrial warehouses, which the Project could serve. However, the heavy-duty trucks transporting goods to the proposed light industrial buildings could travel greater distances, such as Port of Oakland or Port of Point San Pablo. Unless the City restricts the Project's truck trip distances to those specified in the Project's air quality

3 CARB's Technology Assessment for Transport Refrigerators provides information on the current and projected development of TRUs, including current and anticipated costs. The assessment is available at: *https://www.arb.ca.gov/msprog/tech/techreport/tru_07292015.pdf*.

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analysis, the City must remodel the Project's air quality impacts assuming a truck trip distance supported by substantial evidence.

The City Used Inappropriate Vehicle Fleet Mixes to Evaluate the Project's Air Quality Impacts from Mobile Sources.

The Project's operational mobile source air pollutant emissions may have been underestimated in the DEIR by using inappropriate vehicle fleet mixes. The Project's operational air pollutant emissions were estimated assuming 9 percent of the Project's 12,370 daily vehicle trips would consist of heavy-duty trucks. The City obtained this fleet mix using CalEEMod default assumptions.

CARB believes it would be more appropriate to base the air quality and health risk impact analysis on the fleet mixes supported by substantial evidence, rather than modeling defaults. For example, according to the Fontana Truck Trip Generation Study,[4] 20.4 percent of the total daily vehicle trips from a warehouse greater than 100,000 square feet (heavy warehouse) would consist of trucks. This example study is based on traffic counts from warehouses. Furthermore, the risk impacts evaluated in the Project's HRA assumed that 25 percent of the Project total daily vehicle trips would consist of heavy-duty trucks, which is inconsistent with the 9 percent assumed in the Project's air quality analysis. CARB recommends that the City reevaluate the Project's air quality impacts assuming a conservative fleet mix, supported by substantial evidence.

1H

The DEIR Did Not Account for Air Pollutant Emissions from Heavy Duty Trucks During On-Site Grading

The DEIR did not account for mobile source air pollutant emissions from grading operations during the Project's construction phase. According to Chapter 3.3.5 (Project Construction), the construction of the proposed light industrial buildings would involve mass grading and extensive excavation. However, based on CARB's review of the CalEEMod outputs, found in Appendix C (Air Quality Modeling Results) of the DEIR, the City assumed that no heavy-duty truck trips would be required to import or export soil during the on-site mass grading and excavation. Furthermore, the DEIR does not explicitly state the quantity of soil needed to grade the Project site to support this assumption. If soil must be imported or exported to grade the Project site, the truck trips needed to accomplish that must be accounted for.

1I

The City must remodel the Project's construction air pollutant emissions using accurate heavy duty truck trip estimates. Residences and other sensitive receptors (e.g., daycare facilities, senior care facilities, and schools) located near construction haul routes could be exposed to diesel exhaust emissions that were not evaluated in the DEIR. The DEIR should clearly state

4 City of Fontana. Truck Trip Generation Study. August 2003. Accessible at: *https://tampabayfreight.com/pdfs/Freight%20Library/Fontana%20Truck%20Generation%20Study.pdf*

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the total number of heavy-duty truck trips expected during Project construction so the public can fully understand the potential environmental effects of the Project on their communities.

The Health Risk Assessment Used Inappropriate Assumptions When Modeling the Project's Health Risk Impacts

The HRA prepared for the Project and presented in Appendix I (Health Risk Assessment) of the DEIR, concluded that residences near the Project site would be exposed to diesel PM emissions that would result in cancer risks of 1.56 chances per million during Project construction and 10.45 chances per million during Project operation. Since the Project's cancer risks are below the San Joaquin Valley Air Pollution Control District's significance threshold of 20 chances per million, the DEIR concluded that the Project would result in a less than significant impact on public health. CARB has reviewed the Project's HRA and is concerned that the Project's cancer risk impacts may have been underestimated for the reasons detailed below.

The HRA prepared for the Project evaluated the operational cancer risks using exhaust emission factors from EMFAC2017 while assuming aggregated vehicle speeds for heavy-duty trucks. When estimating cancer risks from Project-related truck activities, the City should obtain exhaust emission factors for trucks transiting at speeds of 5 miles per hour (mph) within the project site and 25 mph along local roadways. To better understand the Project's potential impacts on public health, the City should revise the Project's HRA using the latest diesel PM emission factors obtained from EMFAC2021 and report the revised cancer risks in the FEIR. 1J

The Project traffic trip rates presented in the HRA are not consistent with those shown in the Project's Traffic Impact Study. As presented in Table 15 (Trip Generation Estimate) of Appendix G (Traffic Impact Study), the operation of the Project would result in 12,370 daily vehicle trips. However, according to the Project's HRA, the Project would result in 10,572 daily vehicle trips. Since the daily vehicle trips reported in the Project's CalEEMod outputs are below what is presented in the DEIR, CARB is concerned that the cancer risk impacts reported in the DEIR are underestimated. The City must remodel the Project's cancer risks using the vehicle trips presented in Project's traffic impact analysis.

The DEIR Did Not Include Mitigation Measures to Minimize the Project's Significant and Unavoidable Impact on Air Quality

The City did not include any meaningful project-specific mitigation measures in the DEIR to reduce the Project's operational NOx emissions. Chapter 6 (Air Quality) of the DEIR concludes that the operation of the Project would result in emissions of NOx that would exceed the San Joaquin Valley Air Pollution Control District's (SJVAPCD) significance threshold. Consequently, the City concluded in the DEIR that that Project would significantly impact air quality. Although the DEIR does not include mitigation measures to reduce the Project's operational NOx emissions, the City commits to implementing the applicable 1K

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measures listed in Appendix B (Additional Air Quality Improvement Measures) of the DEIR and comply with local air district rules, such as SJVAPCD Rule's 9410 and 9510, and state regulations, such as the Advanced Clean Truck Regulation. Even after implementing applicable local air district rules and state regulations and the City's Additional Air Quality Improvement Measures, the City concluded in the DEIR that the Project's impact on air quality would remain significant and unavoidable.

Although complying with local air district rules and state regulations would reduce the Project's air pollutant emissions, the Project would have to abide by these State and district rules and regulations and they should not be exclusively relied on to reduce the Project's impact on air quality. In the DEIR, the City states that the Project would comply with SJVAPCD Rule 9510. This rule requires the applicant to reduce the Project's operational NOx and PM10 emissions by 33.3 and 45 percent, respectively. To achieve these reductions, the applicant will need to pay into an off-site mitigation fund managed by the SJVAPCD for any emission reductions required by the rule that are not achieved through on-site emission reductions. The City must explain in the DEIR how the rule will achieve the desired emission reductions after all feasible mitigation measures are implemented. The City must list all the project design features and mitigation measures that would reduce the Project's operational air pollutant emissions and the amount of money the applicant will pay into SJVAPCD's off-site mitigation fund. 1K

The City must include meaningful mitigation measures in the DEIR to reduce the Project's operational NOx emissions. As previously mentioned, the DEIR states that the City will implement the applicable measures listed in Appendix B (Additional Air Quality Improvement Measures) of the DEIR to reduce the Project's operational emissions. The Additional Air Quality Improvement Measures listed in Appendix B are specific to the Sanchez-Hogan Annexation Project FEIR approved by the City in June 2020. In Appendix B, the City states that since the Project is similar in type, size, location, scale of development to the Sanchez-Hogan Annexation Project, the mitigation measures listed in the Sanchez-Hogan Annexation Project FEIR are referenced in this DEIR. If the City plans to implement the measures listed in Appendix B, the City must conduct a project-specific analysis to ensure that the type of mitigation measures used in the Sanchez-Hogan Annexation Project FEIR will lessen the Project's air quality impacts. The City cannot simply cite mitigation measures from an FEIR, not related to the Project, to mitigate the Project's significant air quality impact simply because the two projects are similar in type and size. 1L

The Additional Air Quality Improvement Measures listed in Appendix B include: requiring compliance with CARB regulations and SJVAPVD Rules, the use of Tier 4 off-road equipment during Project construction, compliance with cool roof specifications as specified in the 2016 CALGreen Building Standards, all off-road equipment to be powered by zero to near-zero technologies, tenant-owned and operated fleet equipment with a gross vehicle weight rating greater than 14,000 pounds accessing the site meet or exceed 2010 model year emissions equivalent engine standards. These measures also require the use of electrically powered landscaping equipment, use haul trucks and large on-site diesel-powered equipment that are equipped with CARB Tier IV-compliant engines or better, use zero-emission light - and

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medium-duty vehicles, utilize electric-powered or zero-emission forklifts, tuggers, and other off-road mobile equipment, and providing electric TRU electrical connections at dock doors and vehicle charging stations proposal to demand. The measures listed in Appendix B also include measures that are not related to the Project. These measures include requiring the applicant of the Sanchez-Hoggan Annexation Project to retain a qualified person to prepare a detailed air quality plan and to install a screen wall to the north of the Sanchez-Hoggan property to serve as a visual and sound buffer.

1L

If the City plans to implement the air quality Improvement measures listed in Appendix B, the City must include these measures as either project-specific mitigation measures or project design features in the FEIR. The City must explain in the FEIR how they would lessen the Project's significant and unavoidable impact on air quality. The mitigation measures and design features must clearly explain their objectives; specifically, how they will be implemented, who is responsible for implementation, where they will occur and when they will occur.

Under CEQA, Projects that will have a significant and unavoidable impact on the environment must implement all feasible mitigation measures to reduce those impacts (see California Public Resources Code§ 21081; 14 CCR§ 15126.2(b)). Based on CARBs review of the DEIR, the City has failed to meet this requirement under CEQA. To meet the minimum requirements of CEQA and protect public health, the City must include meaningful and project-specific mitigation measures in the FEIR to reduce the Project's air pollutant emissions. Appendix A of this letter contains a list of feasible measures that can be applied to the Project to minimize air pollution. The mitigation measures in the FEIR must be fully enforceable and imposed by the City.

1M

Conclusion

CARB is concerned about the potential public health impacts should the City approve the Project and how those impacts were evaluated in the DEIR. The City does not state if the proposed warehouse buildings would be used for cold storage. Should the City allow the Project to be used for cold storage, the City should update the Project's air quality analysis and HRA to account for the increase in air pollution and cancer risks resulting from trucks and trailers with TRUs visiting the Project site. The Project's air quality impact analysis and conclusions are based on heavy-duty truck trip distances and mixes that were not supported by substantial evidence. The DEIR did not account for air pollutant emissions from haul truck trips during on-site mass grading and excavation. The Project's HRA and air quality analysis have conflicting modeling assumptions. Lastly, the City did not include meaningful and project-specific mitigation measures in the DEIR to reduce the Project's significant and unavoidable impact on air quality.

1N

Given the breadth and scope of projects subject to CEQA review throughout California that have air quality and greenhouse gas impacts, coupled with CARB's limited staff resources to substantively respond to all issues associated with a project, CARB must prioritize its substantive comments here based on staff time, resources, and its assessment of impacts.

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CARB's deliberate decision to substantively comment on some issues does not constitute an admission or concession that it substantively agrees with the lead agency's findings and conclusions on any issues on which CARB does not substantively submit comments.

CARB appreciates the opportunity to comment on the DEIR for the Project and can provide assistance on zero-emission technologies and emission reduction strategies, as needed. Please include CARB on your list of selected State agencies that will receive the FEIR. If you have questions, please contact Stanley Armstrong, Air Pollution Specialist via email at *stanley.armstrong@arb.ca.gov*.

Sincerely,

Robert Krieger, Branch Chief, Risk Reduction Branch

Attachment

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1N

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Attachment A

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Attachment A
Recommended Air Pollution Emission Reduction Measures for Warehouses and Distribution Centers

The California Air Resources Board (CARB) recommends developers and government planners use all existing and emerging zero to near-zero emission technologies during project construction and operation to minimize public exposure to air pollution. Below are some measures, currently recommended by CARB, specific to warehouse and distribution center projects. These recommendations are subject to change as new zero-emission technologies become available.

Recommended Construction Measures

1. Ensure the cleanest possible construction practices and equipment are used. This includes eliminating the idling of diesel-powered equipment and providing the necessary infrastructure (e.g., electrical hookups) to support zero and near-zero equipment and tools.
2. Implement, and plan accordingly for, the necessary infrastructure to support the zero and near-zero emission technology vehicles and equipment that will be operating on site. Necessary infrastructure may include the physical (e.g., needed footprint), energy, and fueling infrastructure for construction equipment, on-site vehicles and equipment, and medium-heavy and heavy-heavy duty trucks.
3. In construction contracts, include language that requires all off-road diesel-powered equipment used during construction to be equipped with Tier 4 or cleaner engines, except for specialized construction equipment in which Tier 4 engines are not available. In place of Tier 4 engines, off-road equipment can incorporate retrofits, such that, emission reductions achieved are equal to or exceed that of a Tier 4 engine.
4. In construction contracts, include language that requires all off-road equipment with a power rating below 19 kilowatts (e.g., plate compactors, pressure washers) used during project construction be battery powered.
5. In construction contracts, include language that requires all heavy-duty trucks entering the construction site, during the grading and building construction phases be model year 2014 or later. All heavy-duty haul trucks should also meet CARB's lowest optional low-oxides of nitrogen (NO_x) standard starting in the year 2022.[1]

1. In 2013, CARB adopted optional low-NOx emission standards for on-road heavy-duty engines. CARB encourages engine manufacturers to introduce new technologies to reduce NOx emissions below the current mandatory on-road heavy-duty diesel engine emission standards for model-year 2010 and later. CARB's

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6. In construction contracts, include language that requires all construction equipment and fleets to be in compliance with all current air quality regulations. CARB is available to assist in implementing this recommendation.

Recommended Operation Measures

1. Include contractual language in tenant lease agreements that requires tenants to use the cleanest technologies available, and to provide the necessary infrastructure to support zero-emission vehicles and equipment that will be operating on site.
2. Include contractual language in tenant lease agreements that requires all loading/unloading docks and trailer spaces be equipped with electrical hookups for trucks with transport refrigeration units (TRU) or auxiliary power units. This requirement will substantially decrease the amount of time that a TRU powered by a fossil-fueled internal combustion engine can operate at the project site. Use of zero-emission all-electric plug-in TRUs, hydrogen fuel cell transport refrigeration, and cryogenic transport refrigeration are encouraged and can also be included in lease agreements.[2]
3. Include contractual language in tenant lease agreements that requires all TRUs entering the project-site be plug-in capable.
4. Include contractual language in tenant lease agreements that requires future tenants to exclusively use zero-emission light and medium-duty delivery trucks and vans.
5. Include contractual language in tenant lease agreements that requires all service equipment (e.g., yard hostlers, yard equipment, forklifts, and pallet jacks) used within the project site to be zero-emission. This equipment is widely available and can be purchased using incentive funding from CARB's Clean Off-Road Equipment Voucher Incentive Project (CORE).[3]
6. Include contractual language in tenant lease agreements that requires all heavy-duty trucks entering or on the project site to be model year 2014 or later, expedite a transition to zero-emission vehicles, and be fully zero-emission beginning in 2023. A list of commercially available zero-emission trucks can be obtained from the the Hybrid and Zero-emission Truck and Bus Voucher Incentive Project (HVIP).[4] Additional insentive funds can be obtained from the Carl Moyer Program and Voucher Incentive Program.[5]
7. Include contractual language in tenant lease agreements that requires the tenant to be in, and monitor compliance with, all current air quality regulations for on-road trucks

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optional low-NOx emission standard is available at: *https://ww2.arb.ca.gov/our-work/programs/optional-reduced-nox-standards* .

2. CARB's technology assessment for transport refrigerators provides information on the current and projected development of TRUs, including current and anticipated costs. The assessment is available at: *https://www.arb.ca.gov/msprog/tech/techreport/tru_07292015.pdf*

3 Clean Off-Road Equipment Voucher Incentive Project. Accessible at: *https://californiacore.org/how-to-participate/*

4 Zero-Emission Truck and Bus Voucher Incentive Project. Accessible at: *https://californiahvip.org/*

5 Carl Moyer Program and Voucher Incentive Program. *https://ww2.arb.ca.gov/carl-moyer-program-apply*

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Responses to Comment #1, California Air Resources Board (CARB)

Response 1A: This comment is an introductory paragraph that recites facts related to the project and provides a basis for the CARB comments that follow later in the letter. The City's responses address each of the more specific comments. No further response to this general comment is required.

Response 1B: This comment portrays the project area as substantially composed of pollution-sensitive uses already exposed to high levels of toxic air pollutants, to which the project would contribute; no evidence is submitted in support of this general and less than accurate portrayal. Chapter 6.0 of the DEIR (pages 6-1 through 6-21) documents in detail the potential air pollutant emissions that would be generated by the project if approved and their potential impacts. The DEIR acknowledges that these emissions would contribute to existing air pollution levels in the project vicinity and analyzes the effects of these contributions. The DEIR not only acknowledges the existing residences west of the project but also residences immediately east of the project site; potential impacts with respect to residences located east and west of the project site are considered in the DEIR.

The three schools mentioned by the commenter are each more than 1.5 miles from the site. Based on the significance thresholds contained in the CEQA Guidelines, Appendix G Environmental Checklist, the project would not involve potential for significant effects on these schools. Unless a project would "Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school," it would not involve a significant environmental effect.

It is true that existing land uses in the general project area are exposed to diesel particulate matter (DPM) as well as other air pollutants. The commentor provides no data or analysis to suggest that the mentioned residences and schools are any more exposed to DPM than any other land uses in the area. To address this concern specifically, a health risk assessment (HRA) of the project was conducted and reported in the DEIR; the HRA indicated the project would have less than significant health effects on nearby residential areas, even on the residences immediately adjoining the project site.

Response 1C: This comment again provides a general portrayal of pollution exposure in the project vicinity and suggests that the project is subject to the regulations or standards associated with AB 617. AB 617 does seek to protect impacted communities, but there are no AB 617 communities in the immediate vicinity of the project. AB 617 provides for

preparation and implementation, including funding, of Community Emissions Reduction Programs (CERPs) for specific geographic areas, including the Stockton AB 617 Community. CERP programs are intended to help reduce air pollution levels and do not directly apply outside the CERP community boundary. The CERP is not a regulatory program. The nearest boundary of the Stockton AB 617 Community is approximately 0.6 miles west of the project site. AB 617 and the CERP are discussed further in Response to Comment 3D, and project consistency with the objectives and programs of the Stockton CERP are discussed in the Response to Comment 3K.

Response 1D: The commenter provides information related to CalEPA's CalEnviroScreen mapping and designations for the project area. This information together with detailed information on the potentially impacted Disadvantaged Unincorporated Community (DUC) that includes the project site is documented extensively in the DEIR. Detailed discussion of CalEnviroScreen mapping and data is provided in Chapter 13.0 Land Use at pages 1, 3, 7 and 8, and on Figure 13-1. Discussion related to potential impacts on the DUC is provided in Chapter 6.0 Air Quality (pages 18 and 19), Chapter 10.0 Greenhouse Gases (pages 2, 9 and 11), Chapter 11.0 Hazards (page 8), Chapter 18.0 Cumulative Impacts (page 5) and Chapter 20.0 Other CEQA Issues (pages 4 through 8).

The commenter provides pollutant exposure data from CalEnviroScreen 3.0, which is consistent with the data provided in the DEIR. Just after the date of the CARB letter, however, CARB finalized CalEnviroScreen 4.0, which contains different data for the referenced Census tract, which contains both the project site and neighboring residential areas. The overall CalEnviroScreen score places the tract in the 94th percentile. The Pollution Burden score is 88. A review of the legend data indicates that the highest contributing areas of pollution are Pesticides (88), Drinking Water Contamination (96), Lead in Housing (67), Hazardous Waste (91) and Solid Waste (80); the project would not have known adverse effects on the previously listed pollutants. The CalEnviroScreen scores for pollutant concerns that could be affected by the project – ozone, PM2.5, Diesel PM and Traffic – range from 29 to 53, averaging less than 50. These pollutant concerns were analyzed in the DEIR.

Disadvantaged Unincorporated Communities (DUCs) are of concern in the evaluating the consistency of annexations with LAFCo policies. Potential environmental effects on residents within the DUC are addressed directly by the DEIR.

Response 1E: The DEIR recognizes the project's potential emissions of diesel emissions associated with truck traffic and diesel equipment use; the DEIR quantifies and discusses the project's potential emissions of diesel particulate matter, which is identified as a toxic air contaminant, and the project's potential contributions to regional air pollution in Chapter 6.0. In the same chapter, the DEIR reports the project's potential health risks to nearby and adjacent residences described in the project Health Risk Assessment (HRA) included in DEIR Appendix I. The HRA found the project local health risk impacts to be less than significant. The project's contributions to GHG emissions are quantified and discussed in the DEIR Chapter 10.0. CARB's concerns are addressed in more detail in the following responses, including potential mitigation measures that could help reduce the project's air quality effects.

The commenter states that the City is obligated to "construct and operate the Project using the zero emission technologies provided in this letter." No known statute or regulation imposes such an obligation. However, the applicant has, as described in the DEIR, agreed to incorporate several air quality improvement measures into the project, as described in Chapter 6.0 Air Quality and DEIR Appendix B. In addition, the City has reviewed CARB's recommendations and suggested air quality mitigation measures and incorporated applicable measures into the project as discussed in the Response to Comment #1M.

Response 1F: The applicant (Mitchell, pers. comm.) indicated during the preparation of the DEIR that the proposed project is not intended to accommodate cold storage uses, and this fact was reflected in the content of the DEIR. Cold storage is not described as a proposed use in DEIR Chapter 3.0 Project Description except to note that cold storage is one of several potential uses of "high-cube" warehousing (DEIR, page 3-5).

As the commenter notes, cold storage was specifically excluded as a potential project use in the project air quality modeling reported in DEIR Chapter 6.0 Air Quality. Applications from future tenants of the approved site will be subject to project-level review by the City of Stockton, including CEQA review, during which the consistency of the future project with the DEIR project description, and the adequacy of the DEIR environmental impact review in addressing the future project will be evaluated. Any future tenants proposing to establish a cold storage facility will be required to submit project- specific information related to the cold storage use, an evaluation of its air quality impacts and the degree to which those impacts were covered in the DEIR, if at all, and mitigation measures needed to reduce potential

air quality impacts to a less than significant level. If necessary, additional CEQA documentation is needed to address such a use, it will need to be prepared, up to and including a Supplemental, Subsequent or new EIR as required by CEQA Guidelines Sections 15162 and 15163 as applicable. Section 4.0 of this Final EIR adds a note to the Project Description noting this exclusion.

The commenter's recommended measure to restrict cold storage uses in conjunction with the proposed project is acceptable to the City and has been included in the DEIR via Section 4.0 Errata of this FEIR. The commenter recommends additional mitigation measures that would apply to future cold storage uses, if proposed. The City does not dispute that these measures could be effective if applied to future projects. The City takes the commenter's recommendations under advisement for consideration if and when a cold storage use is proposed within the project.

Response 1G: The DEIR's analysis of air quality impacts in Chapter 6.0, as noted by the commenter, was quantitative and based on a CalEEMod air quality model run using primarily default values. Based on user input regarding the size, location and timing of the project, the model selects from ranges of default values for calculating air quality impacts. The defaults are representative of the project type, size and location as well as the characteristics of the air basin within which the project is located, among other factors. The model defaults, developed by the California Pollution Control Officers Association, its consultants, and in conjunction with the Southern California Association of Governments and air pollution control districts throughout the state, are the accepted statewide evidence-based predictor for air pollutant generation by new development projects.

The CalEEMod run for the Mariposa Industrial Park project did include a default modification. Based on the same concern expressed by the commenter, regarding the potential length of truck trips, the model's default vehicle trip length for heavy trucks was doubled from 7.3 miles to 15 miles. This change was made in response to a concern regarding truck trip length received from SJVAPCD on a previous warehouse project in Stockton. The quantity of change was a professional judgment made by the DEIR preparer after discussion with the City, the DEIR preparer and its traffic consultant. Advised of this change with respect to the previous project, the SJVAPCD did not object to the value used.

The commenter states that heavy-duty truck trips associated with the project could involve travel greater distances, such as trips between the project and the Port of Oakland or the Port of San Pablo. It is stating

the obvious to note that some project truck trips would be longer, but it is equally true that the project could involve much shorter trips, such as between the Burlington Northern intermodal yard (2 miles), the Port of Stockton (11 miles), Stockton Airport (5 miles) or a range of other destinations. In fact, at this stage of environmental study, there is no reliable forecast of truck trip origins and destinations for the project as a whole, and speculation about truck trip length in the absence of supporting evidence is prohibited by CEQA.

CalEEMod accounts for the difficulty of predicting trip length by using best available information to establish the default model inputs, again based on type of land use and location. The City is entitled to rely on this information as substantial evidence in support of their conclusions regarding air quality. Although the commenter suggests that the project's air quality impacts *may* be underestimated, no evidence has been identified or submitted by the commenter that would warrant increasing, or even changing, the conservative trip length assumption used in the project modeling. Thus, the City's model assumption regarding trip length is adequate for estimating air emissions from trucks.

The commenter suggests that the City might restrict project truck trip lengths to stay within the model default trip length value. Despite the fact that the City has no authority over traffic movements off the site other than to establish truck routes, this suggestion misses the point of the default trip length value, which is to approximate the mean trip length of all truck trips. As noted, in order to provide more conservative results, the City doubled the truck trip length default value.

CEQA Guidelines Section 15151 states: "An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences…The courts have not looked for perfection but for adequacy, completeness, and a good-faith effort at full disclosure." The DEIR disclosed in good faith the potential adverse air quality impacts of the project, described measures that could reduce these impacts, and reached a conclusion on the significance of the air quality impacts after application of these measures, which was that they were significant and unavoidable. This Final EIR describes additional potential measures to reduce air quality impacts as recommended by CARB and other agencies; since the effectiveness of these measures cannot be readily quantified, the conclusions of the DEIR air quality analysis will remain the same.

The commenter provides little to no quantitative information to support its various statements undermining the adequacy of the DEIR air quality impact analysis. To the contrary, the City's reasoned, conservative quantitative analysis of impact in the DEIR is substantive and complete and fulfills basic CEQA requirements for full disclosure. Likewise, the City's responses to these comments are reasoned, substantive and fulfill the requirements of CEQA.

Response 1H: DEIR Appendix C contained CalEEMod data from a previous run that was inadvertently included in the DEIR appendix. The analysis and conclusions described in the DEIR text and tables are, however, based on a corrected CalEEMod run referenced in FEIR Chapter 4.0 and shown in Appendix B of this FEIR.

The correct CalEEMod run was based on a fleet mix that included approximately 10.7% heavy-heavy duty vehicles and 5.5% medium-heavy duty vehicles; this was another adjustment made to the CalEEMod defaults to increase the accuracy and provide for adequately conservative results. These adjustments were based on information provided by the DEIR traffic consultant, developed from the range of truck trip percentages for various warehouse and industrial park land uses from the ITE Trip Generation Manual. An approximate midpoint of this range was used for the fleet mix percentages, split between medium- and heavy-heavy duty vehicles. The adjustments included a proportional reduction in the passenger vehicle percentage.

The commenter suggests "substantial evidence" truck trip percentage data could be obtained from studies like that prepared for a Fontana, California industrial project. The Fontana study predicted different and higher truck trip percentages than did the Mariposa Industrial Park DEIR. For the purposes of the Mariposa Industrial project, this information cannot credibly be labeled "substantial evidence.' The data is derived from studies for a single project located in an entirely different geographic area. While the Fontana data may be useful and representative of projects in the San Bernardino and Riverside areas of Southern California, its applicability in rural northern California, an entirely different socio-economic area, cannot be assumed. No such study has been performed in the Stockton area, and in the absence of such data, the CalEEMod default values as modified by the consulting firm responsible for the project traffic studies, are considered by the City to be the best available and most reliable data.

The commenter notes that the HRA reported in the DEIR used a higher heavy truck percentage than was assumed in the CalEEMod modeling. This assumption was made by the HRA preparer for the purposes of

making the HRA analysis more conservative by artificially elevating rate of diesel particulate emissions. This is not a conflict between modeling inputs but rather model inputs selected to provide more accurate and/or conservative results in each of the two analyses.

Response 1I: The proposed project, according to the Project Engineer (Ebenal pers. comm.), has been designed to involve balanced cut and fill, requiring little to no soil import or export. The potential air quality effects of on-site grading using existing on-site soils material is addressed internally by the model, and this condition is reflected in the CalEEMod construction emission results.

However, the required import of aggregate base material was not reflected in the DEIR model results. An additional CalEEMod model run, as shown in Appendix B of this FEIR was conducted to incorporate truck trips associated with aggregate import activities. Based on the anticipated development footprint, excluding the detention basin area, it was estimated that approximately 148,427 cubic yards of aggregate would be placed on the project site. CalEEMod calculated potential emissions associated with increased truck trips (9,277 trips) based on an assumed truck capacity of 16 cubic yards. The modified CalEEMod results for construction emissions (unmitigated) differed from those reported in the DEIR as follows.

REVISED TABLE 3-1
REVISED CONSTRUCTION EMISSIONS
(tons/year)

	DEIR	FEIR	Change	Threshold
ROG	5.32	8.87	+3.55	10
NOx	7.30	8.34	+1.04	10
CO	6.47	7.66	+1.19	100
SO2	0.04	0.04	0	27
PM10	2.18	2.19	+0.01	15
PM 2.5	0.63	0.74	+0.11	15

As shown in Revised Table 3-1, none of the predicted criteria pollutant emissions from construction exceed SJVAPCD significance thresholds and would therefore remain less than significant as described in the DEIR. As discussed in the DEIR, construction emissions are temporary, and adverse health impacts would occur only with prolonged exposure. Also, as discussed in the DEIR, NOx and PM10

construction emissions would be reduced through the required implementation of SJVAPCD Rule 9510.

Response 1J: These same comments were also provided by SJVAPCD, and the City's responses appear as responses to comments 2G, 2I and 2K below. The responses are summarized below. Please refer to responses to Comments 2G, 2I and 2K for details.

Issue of Aggregating Truck Speeds

Emissions were re-calculated for trucks travelling on-site at 5 mph and off-site at 25 mph using EMFAC 2021. As you may be aware, EMFAC 2021 was not availbale when this project started in 2019. The overall emissions did not materially change from the original analysis. Please see Comment 2I and 2H for additional details and the updated emission rates.

Issue of Daily truck Traffic Volumes

The daily average of 10,570 vehicles per day is appropriate since it represents the average over the whole week (7 days). The value of 12,370 vehicles per day noted in the comment represents the weekday average and does not take into account the lower traffic volume during the weekends. Since many of the health impacts are associated with annual emissions, a weekly averaged *(not weekday average)* vehicle count is the correct value. See also response to Comment 2G.

The commenter states that the health risks of the project may have been underestimated but provides no evidence that this is the case. The commenter's suggestions regarding vehicle speeds and concerns regarding vehicle trip assumptions were reviewed by Environmental Permitting Specialists, preparer of the HRA.

Response 1K: The commenter asserts that the City's DEIR does not include any meaningful mitigation measures for NOx reduction but in the same paragraph notes that the City commits to implementing the Air Quality Improvement Measures listed in DEIR Appendix B, including compliance with applicable local air district rules. Compliance with local air district rules is known to be effective in reducing impacts. Even though the commenter states that Additional Air Quality Improvement Measures would not result in meaningful reductions air quality impacts, the commenter, in the last three pages of its letter suggests measures that are similar to those included in DEIR Appendix B.

The additional measures were approved and accepted by the project applicants for implementation as a part of the project during the preparation of the DEIR. These measures are broad in their potential to

reduce criteria pollutant emissions, including NOx, as well as diesel particulate emissions from trucks. Through the applicant's acceptance, they are considered a part of the project and will be enforced through incorporation in the project Conditions of Approval. Examples of the measures that would tend to reduce potential NOx emissions would include the following:

Buildings solar adaptable per building code requirements
Buildings designed and built to LEED standards
Buildings have cool roofs per CalGreen standards
Infrastructure EV truck charging
CARB Tier IV emission controls for truck fleets
Truck idling controls
On-site equipment to be non-diesel
Infrastructure to support light EVs

That these measures are not considered meaningful by the commenter is counter-intuitive in that the commenter recommends similar measures as noted above. Due to the general nature of the measures and the degree of variation between potential tenants of the approved project, tools are not presently available to quantify how much impact reduction could be assigned to each measure.

The DEIR addressed the existence and applicability of SJVAPCD rules to the project in detail in Chapter 6.0 Air Quality as existing regulatory requirements and their applicability were considered and discussed as such in the air quality impact analysis. Conformance to SJVAPCD rules and regulations are routinely applied to projects in City Conditions of Approval.

The commenter goes on to describe the application of Rule 9510, which was addressed in the DEIR at page 6-10, including discussion that the project will need to provide on-site emissions reduction or pay required Rule 9510 fees in order to comply with the emission reduction requirements of the Rule. The commenter states:

> "The City must list all the project design features and mitigation measures that would reduce the Project's operational air pollutant emissions and the amount of money the applicant will pay into SJVAPCD's off-site mitigation fund."

At this time, it is not possible for the City to list all the project-specific mitigation measures that might be identified as part of Rule 9510 compliance. The commenter fails to mention that Rule 9510 compliance, and the identification of the project-specific information requested, occurs at the time of the last discretionary entitlement, which would be associated with development of individual tenant

developments within the project site. The proposed annexation, pre-zoning and tentative map approvals for the project are not considered "last discretionary entitlements."

When future tenants come forward and are entitled by the City for construction, the developer must prepare an Indirect Source Rule application and an Air Impact Assessment. It is in these documents that project-specific air impacts and on-site project mitigation measures and their potential to reduce project-related emissions are identified. Based on this information, the SJVAPCD determines the amount of the air quality impact for action by the applicant and fees to be paid if on-site mitigation measures are not sufficient to reach the emission reduction requirements of Rule 9510. .

Response 1L: The commenter is correct in noting that the Additional Air Quality Improvement Measures listed in DEIR Appendix B were applied to a prior approved industrial project, and the Sanchez-Hoggan name appears in the list. Two measures cited by the commenter make specific reference to the Sanchez-Hoggan project. The list is, however, clearly titled "Mariposa Industrial Park Project Draft EIR Additional Air Quality Improvement Measures." The list is preceded by a narrative regarding the origin of the measures and their applicability to the Mariposa Industrial project, not the Sanchez-Hoggan project. Among other things, the narrative notes that the listed measures were affirmed by the project applicant for inclusion in the project and the DEIR with the intention, also stated, that the measures would be incorporated into the project as a part of the project Conditions of Approval, as they were with the Sanchez-Hoggan project. That the list includes two measures specifically referring to the Sanchez-Hoggan project does not, in light of the title and description of the intent of the measures, in any way diminish the applicability or effectiveness of the numerous other listed measures.

The suggestion that the measures are "simply cited" from another EIR fails to acknowledge the analysis and discussion between the City and applicant, as a part of the foregoing Sanchez-Hoggan project and the current Mariposa Industrial project, regarding the applicability and the best way of applying the measures to the two projects. As described in the narrative, drawn from measures recommended by CARB and other agencies during the public review of the Sanchez-Hoggan DEIR, and again recommended in the CARB, APCD and Department of Justice comments on the Mariposa Industrial project. The measures are targeted at large warehouse industrial projects that involve substantial truck traffic to and from proposed structures as well as substantial on-site use of equipment in connection with warehouse activities. None of the agencies, in recommending these and similar measures, have

provided any means by which the means of applying the measures can be better defined or their results quantified. The City's efforts to define and apply available air quality measures to the project are consistent in nature and level of detail with the referenced agency comments.

The City of Stockton has responded to the comments of this and other agencies concerned with air quality by incorporating the agencies' recommendations into an updated, reorganized and clarified list of Additional Air Quality Improvement Measures shown in Appendix C of this FEIR. The City has explained how similar measures were to be applied to the foregoing Sanchez-Hoggan project via project conditions of approval and would approach the task in the same way with respect to the Mariposa Industrial project. This City believes this to be its best effort to incorporate meaningful air quality mitigation measures into the project and that is has incorporated all feasible mitigation into the project.

Response 1M: CARB and other commenters state that CEQA obligates the City to identify "all feasible" mitigation measures in the EIR if the project would result in significant and unavoidable impacts. This requirement does not exist in either the Public Resources Code or CEQA Guidelines sections cited. In fact, the incorporation of "all feasible mitigation measures" is an implied requirement of the prescription for CEQA findings in Guidelines Sections 15091 through 15093. In these sections, the City is permitted to find that

> Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

CEQA requirements for mitigation measures needing to be included in an EIR are described at CEQA Guidelines 15126.4. Feasible mitigation measures must be discussed, but the concept of "all feasible mitigation measures" is not discussed here. Section 15126.4 does require that mitigation measures be fully enforceable, that mitigation is not required for effects found not to be significant and that an essential nexus and rough proportionality must exist between the impact and the mitigation measure.

The comments from CARB as well as the San Joaquin Valley Air Pollution Control District and the California Department of Justice have presented detailed recommendations for air quality mitigation measures that should be applied to the project. The recommended measures have much in common with the measures listed in DEIR Appendix B, addressing topics such as conformance with adopted air

quality regulations and measures to reduce emissions from trucks accessing the project site and the operation on-site equipment.

Measures described in each of the sources address a common set of issues and concerns with different descriptive phrasing. The City, in an effort to compare recommendations and distill a discrete set of measures that could be applied to the project, compiled all recommended measures related to each subject of mitigation. The City's list of air quality measures addressing each of the air quality mitigation subjects and representing its interpretation of the recommendations of each of the commenting agencies is shown in Appendix C of this FEIR. For the purposes of the proposed project and consideration and certification of this EIR, these measures together with those described in the DEIR, can be considered all feasible mitigation measures for the proposed project.

Response 1N: This comment summarizes the commenter's key points addressed in its letter, which were responded to by the City in the foregoing paragraphs. Responses to the summarized comments are provided in the above Responses 1A through 1M. No additional response is required.

The DEIR was prepared and circulated for state agency review through the State Clearinghouse (SCH) and for the required 45-day review period. In addition, the agency had nearly a month of additional time between the time the project was initially submitted to the SCH in July 2021 and the official review period that began on August 24. The agency did not request additional review time, and therefore its comments are considered the agency's official statement as to its important environmental concerns with respect to the Mariposa Industrial project.

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

October 7, 2021

Nicole Moore
City of Stockton
Community Development Department
345 N. El Dorado Street
Stockton, CA 95202

Project: Draft Environmental Impact Report for the Mariposa Industrial Park Project (SCH #2020120283)

District CEQA Reference No: 20210952

Dear Ms. Moore:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the Draft Environmental Impact Report (DEIR) for the project referenced above from the City of Stockton (City). The project consists of constructing seven high-cube warehouse buildings for a total of approximately 3,616,870 square feet, and an estimated 2,938 parking stalls (1,831 automobiles and 1,107 trucks and trailers) (Project). The Project is located on approximately 200 acres on the south side of Mariposa Road, between Marfargoa Road and Carpenter Road, in Stockton, CA (APN 179-220-10,-11,-12,-13,-16,-17,-18,-19,-24).

The District offers the following comments:

1) <u>Project Construction Emissions</u>

The Project construction air emissions are short-term emissions generated from construction activities such as mobile heavy-heavy duty diesel off-road equipment and are expected to result in a less than significant impact. However, the District recommends to further lessen air quality impacts from construction-related diesel exhaust emissions, the City consider the feasibility of incorporating the below measure into the Project.

2A

Samir Sheikh
Executive Director/Air Pollution Control Officer

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

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1990 E. Gettysburg Avenue
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Bakersfield, CA 93308-9725
Tel: (661) 392-5500 FAX: (661) 392-5585

www.valleyair.org www.healthyairliving.com

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Recommended Measure: To reduce impacts from construction-related diesel exhaust emissions, the Project should utilize the cleanest available off-road construction equipment, including the latest tier equipment. 2A

2) Project Trip Length Assumption for Off-Site Heavy-Heavy Duty Truck Travel

The California Emissions Estimator Model (CalEEMod) air quality modeling results in the DEIR includes a 15-mile trip length for quantifying Project operational air quality emissions from Heavy-Heavy Duty Truck (HHD Truck) travel. Without sufficient justification in the DEIR to support the 15-mile trip length, the air quality modeling results may be underestimating the overall Project operational air quality emissions. It is important to note that high-cube warehouse development projects typically result in a high volume of HHD truck trips that generally travel further distances (e.g. trip length) for distribution. 2B

Therefore, the District recommends the DEIR be revised to include a qualitative discussion to support the 15-mile trip length for HHD Truck travel is appropriate. If it is determined not appropriate, the DEIR, more specifically the CALEEMOD air quality modeling results should be revised to reflect an appropriate trip length distance that is supported by a qualitative discussion in the DEIR for consistency.

3) Cleanest Available HHD Trucks

The San Joaquin Valley will not be able to attain stringent health-based federal air quality standards without significant reductions in emissions from HHD Trucks, the single largest source of NOx emissions in the San Joaquin Valley. The District recently adopted the 2018 PM2.5 Plan, which includes significant new reductions from HHD Trucks, including emissions reductions by 2023 through the implementation of the California Air Resources Board (CARB) Statewide Truck and Bus Regulation, which requires truck fleets operating in California to meet the 2010 0.2 g/bhp-hr NOx standard by 2023. Additionally, to meet the federal air quality standards by the 2020 to 2024 attainment deadlines, the District's Plan relies on a significant and immediate transition of heavy duty truck fleets to zero or near-zero emissions technologies, including the near-zero truck standard of 0.02 g/bhp-hr NOx established by the California Air Resources Board. 2C

The Project consists of "high-cube" warehouse development which is expected to generate a high volume of HHD Truck traffic, including HHD Trucks traveling to-and-from further trip length distances for potential distribution. The DEIR discusses zero and near-zero emissions technologies but it is unclear if the DEIR requires such emission technologies as mitigation measures for the Project. To reduce impacts from operational mobile source emissions, the District recommends that the following mitigation measures be considered for inclusion in the Final EIR:

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- Require fleets associated with Project operational activities to utilize the cleanest available HHD truck technologies, including zero and near-zero (0.02 g/bhp-hr NOx) technologies as feasible.

- Require all on-site service equipment (cargo handling, yard hostlers, forklifts, pallet jacks, etc.) to utilize zero-emissions technologies as feasible.

2C

4) Truck Routing

Truck routing involves the assessment of which roads HHD Trucks take to and from their destination, and the emissions impact that the trucks may have on residential communities and sensitive receptors. Per the DEIR, the Project consists of "high-cube" warehouse development, which is expected to result in a high volume of HHD Truck traffic.

Therefore, the District recommends the DEIR evaluate HHD Truck routing patterns for the Project, with the aim of limiting emission exposure to residential communities and sensitive receptors. This evaluation would consider the current truck routes, the quantity and type of each truck (MHD, HHD, etc.), the destination and origin of each trip, traffic volume correlation with the time of day or the day of the week, overall VMT, and associated exhaust emissions. The truck routing evaluation would also identify alternative truck routes and their impacts on VMT, and air quality.

2D

5) Health Risk Assessment

The District has reviewed the Draft Analysis of Public Health Risks at a Proposed Industrial Development (Draft Analysis) which summarizes the Health Risk Assessment (HRA) that was conducted for the DEIR. In addition, the District reviewed Appendices A, B, C, and D which provides emission calculations, and images of the AERMOD and HARP2 analyses for the HRA. Based on the information provided, the District offers the following comments:

- The Draft Analysis states the diesel particulate matter (DPM) in the HRA was speciated from the annual PM2.5 diesel exhaust construction emissions generated from the CalEEMod analysis. However, DPM is defined as diesel engine exhaust PM10. The District recommends ensuring the HRA utilize the PM10 diesel exhaust construction emissions from the CalEEMod analysis to speciate the DPM emissions.

2E

- The District was unable to determine the inputs (e.g.: truck model type, region, vehicle category, etc.) that were used in the EMFAC model to quantify the vehicle idling, on-site, and off-site truck travel emission factors. Therefore, the District recommends ensuring the HRA include a discussion identifying the EMFAC inputs that were included.

2F

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- In Appendix B (Detailed Emissions Calculations specifically Table B-1), the Project is expected to result in 10,572 vehicle trips per day with 25% of the trips expected to be HHD Trucks. However, the traffic study prepared for the DEIR states the Project is expected to result in 12,370 vehicle trips per day. The District recommends the vehicle trips used to quantify emissions in the HRA are consistent with those in the traffic study. 2G

- Per Appendix B (Detailed Emissions Calculations specifically Table B-1), the HRA used an idling truck rate of 15 min/truck/idling point to calculate operational HHD Truck idling emissions. Since most projects are expected to have multiple truck idling points, the District recommends the HRA include the number of truck idling points in the truck idling emission calculation. Additionally, based on the information provided, the District was unable to verify the yearly idling emissions for HHD Trucks. Therefore, the HRA should include the calculation method that was used to generate the idling emissions for HHD trucks (grams/yr). 2H

- Per Appendix B, (Detailed Emissions Calculations specifically Table B-2), the HRA used "aggregate speed" as the speed parameter in the EMFAC model to generate the emission rates (grams/mile) for on-site and off-site HHD Truck travel. The District recommends the HRA be revised to ensure the average emission rate for the speeds 5, 10, 15, 20, and 25 miles per hour is used to calculate the emissions for the annual operational HHD Truck travel. 2I

- In Appendix B (Detailed Emissions Calculations specifically Table B-4) the yearly emissions associated with idling, on-site, and off-site HHD Truck travel that were used in the HRA are summarized. However, the DPM emission totals (lb/yr) are inconsistent with the emission totals calculated in Tables B-1 and B-2 of Appendix B. The District recommends the DPM emission totals in Table B-4 be revised to reflect the DPM emission totals calculated in Tables B-1 and B-2 for consistency. 2J

- Per Appendix D (Excerpts of HARP2 Model), the HARP2 model for the HRA used a yearly DPM emission rate of 2.03 lb/yr for the area source and a total of 16.31 lb/yr for the line volume sources. The DPM emission rates are inconsistent with the calculated DPM emissions identified in Appendix B (Detailed Emissions Calculations specifically Tables B-1 and B-2). For consistency, please reconcile the difference in the emission calculations presented in Appendix B or Appendix D and ensure the HRA reflects the correct DPM emissions. 2K

- In Appendix C (Excerpts of AERMOD Model Reports), the images of the HRA AERMOD model input files indicate that the line volume sources have a release height of 5 meters and a width of 50 meters. The model source parameters seem to be unrepresentative of the off-site roadways leading to 2L

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the Project. The District recommends ensuring the HRA include more representative release heights and widths for the line volume sources used in the AERMOD analysis.

- Per Appendix C (Excerpts of AERMOD Model Reports), a scalar of one was used in the AERMOD analysis for the area and two line volume sources for hours 5 thru 19. To confirm the scalar used in the HRA AERMOD analysis, please identify the expected operating schedule of the Project in the Draft Analysis and apply an adjustment factor in the AERMOD analysis that reflects the Project's operating schedule. For example, if the Project operates 7 days a week, 8 hours a day, and 52 weeks a year, the adjustment factor of 4.2 should be applied in the AERMOD analysis for hours when operation would occur and zeros for hours when operation would not occur. 2M

- Based on the information that was provided in Appendix D (Excerpts of HARP2 Model), the District was not able to determine the settings used in the HARP2 model to generate the risk and hazard index scores for construction and operational sources. The District recommends ensuring the HRA use District default input parameters in the HARP2 model (e.g. multi-pathway parameters, fraction of time at home, worker adjustment factors, etc.). 2N

Based on the above, a development project would be considered to have a potentially significant health risk if the HRA demonstrates that the project-related health impacts would exceed District significance threshold of 20 in a million for carcinogenic risk, or 1.0 for the Acute or Chronic Hazard Indices. A project with a significant health risk would trigger all feasible mitigation measures. The District strongly recommends that development projects that result in a significant health risk not be approved. 2O

6) <u>District Rule 9510 (Indirect Source Review)</u>

The purpose of District Rule 9510 (Indirect Source Review) is to reduce the growth in both NOx and PM10 emissions associated with development and transportation projects from mobile and area sources associated with construction and operation of development projects. The rule encourages clean air design elements to be incorporated into the development project. In case the proposed project clean air design elements are insufficient to meet the targeted emission reductions, the rule requires developers to pay a fee used to fund projects to achieve off-site emissions reductions. 2P

The proposed Project is subject to District Rule 9510 because it will receive a project-level discretionary approval from a public agency and will equal or exceed 25,000 square feet of light industrial space. Per the DEIR the "SJVAPCD will be notified of impeding project construction as part of the required filing of an application for coverage under Rule 9510". The District would like to clarify that since the Project will

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include seven high-cube warehouse buildings for a total of approximately 3,616,870 square feet, one Air Impact Assessment (AIA) application should be submitted for the entire Project.

An AIA application is required and the District recommends that demonstration of compliance with District Rule 9510, before issuance of the first building permit, 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.

2P

The AIA application form can be found online at: http://www.valleyair.org/ISR/ISRFormsAndApplications.htm.

7) Feasibility of implementing at Voluntary Emissions Reduction Agreement (VERA)

The DEIR states, "*the feasibility of adopting and implementing a VERA is determined between the District and the project proponent."* The District would like to clarify that per §15126.4(a) of the CEQA Guidelines, it is the role of the Lead Agency to consider implementing all feasible mitigation for the Project. Per the DEIR, since NOx operational emissions are expected to exceed the District's significance thresholds, the District recommends that the DEIR be revised to include a discussion on the feasibility of implementing a Voluntary Emission Reduction Agreement (VERA) for the Project.

A VERA is a mitigation measure by which the project proponent provides pound-for-pound mitigation of emissions increases through a process that develops, funds, and implements emission reduction projects, with the District serving a role of administrator of the emissions reduction projects and verifier of the successful mitigation effort. To implement a VERA, the project proponent and the District enter into a contractual agreement in which the project proponent agrees to mitigate Project specific emissions by providing funds for the District's incentives programs. The funds are disbursed by the District in the form of grants for projects that achieve emission reductions. Thus, project-specific regional impacts on air quality can be mitigated. Types of emission reduction projects that have been funded in the past include electrification of stationary internal combustion engines (such as agricultural irrigation pumps), replacing old heavy-duty trucks with new, cleaner, more efficient heavy-duty trucks, and replacement of old farm tractors.

2Q

In implementing a VERA, the District verifies the actual emission reductions that have been achieved as a result of completed grant contracts, monitors the emission reduction projects, and ensures the enforceability of achieved reductions. After the project is mitigated, the District certifies to the Lead Agency that the mitigation is completed, providing the Lead Agency with an enforceable mitigation measure demonstrating that project-specific regional emissions have been mitigated to less

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than significant. To assist the Lead Agency and project proponent in ensuring that the environmental document is compliant with CEQA, the District recommends the DEIR include an assessment of the feasibility of implementing a VERA.

Additional information on implementing a VERA can be obtained by contacting District CEQA staff at by email at CEQA@valleyair.org or by phone at (559) 230-6000.

8) Ambient Air Quality Analysis (AAQA)

If the air quality modeling results are revised based on comment two of this letter, the District recommends that an Ambient Air Quality Analysis (AAQA) be performed for the Project if emissions exceed 100 pounds per day of any pollutant.

An AAQA uses air dispersion modeling to determine if emissions increases from a project will cause or contribute to a violation of the ambient air quality standards.

If an AAQA is performed, the analysis should include emissions from both Project specific permitted and non-permitted equipment and activities. The District recommends consultation with District staff to determine the appropriate model and input data to use in the analysis. 2R

Specific information for assessing significance, including screening tools and modeling guidance is available online at the District's website www.valleyair.org/ceqa.

9) Vegetative Barriers and Urban Greening

The nearest single family residential units are located approximately 0.2 miles north of the Project. The District suggests the City consider the feasibility of incorporating vegetative barriers and urban greening as a measure to further reduce air pollution exposure on sensitive receptors (e.g. residences and school).

While various emission control techniques and programs exist to reduce air quality emissions from mobile and stationary sources, vegetative barriers have been shown to be an additional measure to potentially reduce a population's exposure to air pollution through the interception of airborne particles and the uptake of gaseous pollutants. Examples of vegetative barriers include, but not limited to the following: trees, bushes, shrubs, or a mix of these. Generally, a higher and thicker vegetative barrier with full coverage will result in greater reductions in downwind pollutant concentrations. In the same manner, urban greening is also a way to help improve air quality and public health in addition to enhancing the overall beautification of a community with drought resistant low maintenance greenery. 2S

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10) Onsite Solar Deployment

The District encourages air quality improvement measures to further reduce project related air quality emissions. While various emission control techniques and programs exist to reduce air quality emissions from mobile and stationary sources, the production of solar energy is contributing to improving air quality and public health. The District suggests that the Project proponent consider the feasibility of incorporating solar power systems, as an emission reduction strategy for this Project.

2T

11) Charge Up! Electric Vehicle Charger

To support further installation of electric vehicle charging equipment and development of such infrastructure, the District offers incentives to public agencies, businesses, and property owners of multi-unit dwellings to install electric charging infrastructure (Level 2 and 3 chargers). The purpose of this incentive program is to promote clean air alternative-fuel technologies and the use of low or zero-emission vehicles. The District suggests that the City and Project proponent consider the feasibility of installing electric vehicle chargers for this Project.

2U

Please visit www.valleyair.org/grants/chargeup.htm for more information.

12) District Rules and Regulation

The District issues permits for many types of air pollution sources and regulates some activities not requiring permits. A project subject to District rules and regulation would reduce its impacts on air quality through compliance with regulatory requirements. In general, a regulation is a collection of rules, each of which deals with a specific topic. Here are a couple of example, Regulation II (Permits) deals with permitting emission sources and includes rules such as District permit requirements (Rule 2010), New and Modified Stationary Source Review (Rule 2201), and implementation of Emission Reduction Credit Banking (Rule 2301).

The list of rules below is neither exhaustive nor exclusive. Current District rules can be found online at: www.valleyair.org/rules/1ruleslist.htm. 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.

2V

12a) District Rules 2010 and 2201 - Air Quality Permitting for Stationary Sources

Stationary Source emissions include any building, structure, facility, or installation which emits or may emit any affected pollutant directly or as a fugitive emission. District Rule 2010 requires operators of emission sources to obtain an Authority to Construct (ATC) and Permit to Operate (PTO) from the District. District Rule 2201

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requires that new and modified stationary sources of emissions mitigate their emissions using best available control technology (BACT).

This Project may be subject to District Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review) and may require District permits.

2V

Prior to commencing construction on any permit-required equipment or process, a finalized Authority to Construct (ATC) must be issued to the Project proponent by the District. For further information or assistance, the project proponent may contact the District's Small Business Assistance (SBA) Office at (209) 557-6446.

12b) District Rule 9410 (Employer Based Trip Reduction)

The Project may be subject to District Rule 9410 (Employer Based Trip Reduction) if the Project would result in employment of 100 or more "eligible" employees. District Rule 9410 requires employers with 100 or more "eligible" employees at a worksite to establish an Employer Trip Reduction Implementation Plan (eTRIP) that encourages employees to reduce single-occupancy vehicle trips, thus reducing pollutant emissions associated with work commutes. Under an eTRIP plan, employers have the flexibility to select the options that work best for their worksites and their employees.

2W

Information about how District Rule 9410 can be found online at: www.valleyair.org/tripreduction.htm.

For additional information, you can contact the District by phone at 559-230-6000 or by e-mail at etrip@valleyair.org

12c) District Regulation VIII (Fugitive PM10 Prohibitions)

The project proponent may be required to submit a Construction Notification Form or submit and receive approval of a Dust Control Plan prior to commencing any earthmoving activities as described in Regulation VIII, specifically Rule 8021 – *Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities.*

2X

The application for both the Construction Notification and Dust Control Plan can be found online at:
https://www.valleyair.org/busind/comply/PM10/forms/DCP-Form.docx

Information about District Regulation VIII can be found online at:
http://www.valleyair.org/busind/comply/pm10/compliance_pm10.htm

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12d) Other District Rules and Regulations

The Project may also be subject to the following District rules: Rule 4102 (Nuisance), Rule 4601 (Architectural Coatings), 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). 2Y

13)<u>District Comment Letter</u>

The District recommends that a copy of the District's comments be provided to the Project proponent. 2Z

If you have any questions or require further information, please contact Harout Sagherian by e-mail at Harout.Sagherian@valleyair.org or by phone at (559) 230-5860.

Sincerely,

Brian Clements
Director of Permit Services

Mark Montelongo
Program Manager

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Responses to Comment #2, San Joaquin Valley Air Pollution Control District

Response 2A: The City appreciates the SJVAPCD's direct recommendation and includes the recommended measure in the Final EIR, as shown in Section 4.0 Errata for Chapter 6.0 Air Quality.

DEIR Appendix B lists Additional Air Quality Improvement Measures (AAQIM) that the project applicant agreed to include in the DEIR and the project. AAQIM 5 would require the use of electric-powered, battery-powered, natural gas, or hybrid off-road construction equipment where available during construction. AAQIM 6 would require all off-road equipment with a power rating below 19 kilowatts used during project construction to be electric powered, provided that it is commercially available, which may be plug-in or battery. AAQIM 25 states that building contractors shall be required to use haul trucks and large onsite diesel equipment that are equipped with CARB Tier IV-compliant engines or better, if available, and that small equipment shall be electric or low-emission, where feasible. All these measures, together with APCD's recommended measure, would be incorporated by the project as described in Response to Comment 1M. As also discussed in Response to Comment 1M, the City has compiled a updated, clarified and reorganized list of air quality improvement measures including recommendations made by CARB, SJVAPCD and the California Department of Justice in a refined and more effective list of measures that would be tied to the project as conditions of approval. This list is shown in FEIR Appendix C.

Response 2B: The concern related to the truck trip length assumed in CalEEMod modeling for the project is addressed in Response to Comment 1G. As noted there, the 15-mile trip length value used in the CalEEMod run was assigned in response to an SJVAPCD comment on the previous Sanchez-Hoggan warehouse project (SCH #2020020006). The APCD expressed concern about the use of a CalEEMod default value of 7.3 miles for truck trips. The justification for use of the 15-mile value was to address agency concerns by substantially increasing (doubling) the assumed trip length and thereby the conservativeness and reliability of the model results.

Response 2C: As noted by the commenter, significant new regulation of truck emissions in the air district will become effective in 2023 and 2024, requiring observance of zero and near-zero emission limits. These new regulations, which will be applicable to all trucks and fleets in California as well as to trucks and fleets directly connected with the project or accessing the project, will result in substantial reductions if not elimination of NOx, toxic diesel exhaust and other truck-associated

pollution. The projected air pollutant emissions from the project as reported in the DEIR, particularly including emissions from HHD trucks would be substantially reduced from the estimated levels; no known analysis tools are available to quantify the probable reduction or the degree to which these regulations would reduce the significance of the project's air quality impacts.

The mitigation measures recommended by the commenter were considered together with other agency recommendations and the DEIR Appendix B AAQIMs and incorporated into the proposed set of Additional Air Quality Improvement Measures shown in Appendix C of this FEIR.

Response 2D: Project-related truck traffic is expected to be predominantly oriented to and from SR 99. Two viable truck routes connect the project site and SR 99; no other major road facilities are planned in the area.

1. Mariposa Road, extending northwest from the project site to SR 99; and

2. Mariposa Road, extending southeast from the project site, south on Austin Road, and west on Arch Road to SR 99.

The project traffic report (DEIR Appendix G) estimates that approximately 92.9% of traffic would utilize Route #1, and 4.2% of traffic would utilize Route #2, under projected near-term conditions without the project. With the project, approximately 96.1% of project-related traffic would utilize Route #1 and 0.7% of project traffic would utilize Route #. Land uses along both routes are primarily industrial, which is not considered pollution sensitive. Five or fewer residential units are in the immediate vicinity of Route #1 between the project site and SR 99, while approximately 10 residential units are in the immediate vicinity of Route #2 between the project site and SR 99. The California Health Care Facility is also located near Route #2.

Since land uses along both routes are primarily industrial, the potential residential exposure effects of modifying truck routing for the project are not substantial. Neither are the health risks associated with the project substantial. The DEIR's HRA evaluated potential cancer and non-cancer health risks at residences along Route #1 adjacent to the project site and determined that these risks would not exceed SJVAPCD health risk thresholds. The same would be true for the remainder of Routes #1 and #2; however, due to increased route length and the greater number of potential sensitive receptors near Route #2, this route is not recommended.

Alternative truck routes were considered during project planning, which occurred in parallel with preparation of the DEIR. Two public roadways that extend to the west boundary of the site, Marfargoa Road and Clark Drive, would be alternatives to Mariposa Road for conducting traffic to SR 99. However, these two east-west roadways, which extend through residential areas located in a disadvantaged unincorporated community were considered especially sensitive receptors related to potential air quality effects of project truck traffic. As a result, the design of the Mariposa Industrial Park excluded the both of these roads as options for project site access. This decision, due to the project's relatively short frontage on Mariposa Road, required careful consideration and design of the Mariposa Road accesses.

Response 2E: EPS used PM-2.5 instead of PM-10 as a surrogate for DPM because PM-2.5 particulate are more likely to penetrate deep into the lungs and cause health issues. PM-2.5 is more likely to travel into and deposit on the surface of the deeper parts of the lung, while PM10 is more likely to deposit on the surfaces of the larger airways of the upper region. PM-2.5 deposited on the lung surface can induce tissue damage, and lung inflammation. Since PM-10 is 4 times larger than PM-2.5, is more likely to be trapped in the nasal cavity and trachea and would not reach the lower regions of the lung. Therefore, PM-2.5 is a more appropriate surrogate to use for DPM than PM-10.

Response 2F: The EMFAC model was used for CY 2023 and represents aggregate speed and model years. This was noted in the footnote to Table B-2 in HRA Appendix W.

Response 2G: The daily average of 10,570 vehicles per day is appropriate since it represents the average over the whole week (7 days). The value of 12,370 vehicles per day noted in the comment represents the weekday average and does not take into account the lower traffic volume during the weekends. Since many of the health impacts are associated with annual emissions, a weekly averaged vehicle count is the correct value.

Response 2H: EPS used an area source which leads to a conservative estimate of DPM concentrations. If multiple point sources were used as the comment suggests, it would result in substantially lower DPM concentration and health risks. Point sources would result in lower ground level concentration due to high exit velocities and exhaust temperatures associated with truck exhaust.

The idling emission factor was based on the EMFAC run for CY 2023. An excerpt of the EMFAC model appears on the following pages. The

idle emission rate is stated in terms of emissions per 8-hour day. EPS used a higher emission rate in Table B-1 (0.027 grams/day).

The idle emission factor was re-evaluated using EMFAC 2021 for the period 2015 to 2023. The average idle emission factor is estimated to equal 0.007 gr/veh-hr. See Table below.

	A	B	C	D	E	F	G	H
1	EMFAC2017 (v1.0.2) Emission Rates							
2	Region Type: Air Basin							
3	Region: SAN JOAQUIN VALLEY							
4	Calendar Year: 2026							
5	Season: Annual							
6	Vehicle Classification: EMFAC2011 Categories							
7	Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HT							
8								
9	Region	Calendar \	Vehicle Ca	Model Year	Speed	Fuel	PM2.5_RUNEX	PM2.5_IDLEX
10	SAN JOAQ	2026	T6 instate	Aggregated	Aggregate	DSL	0.007732996	0.00068192
11								
12								
13								
14	Idle Emissions			0.00068192	grams/day (8 hr Day)			
15								
16				8.52E-05	gram/hr			
17								

Response 2I: EPS used aggregate emission factors of on-site truck movement and off-site truck travel as this is a more conservative approach. An emission factor of 0.02098 gram per mile was used for on-site travel. The actual emissions based on speed are lower than this value. See Table 1, following, for EMFAC 2021 results broken down by speed for HD Instate trucks for SJ County. Average emission factors for the period 2015 to 2023 were calculated. These emissions are lower than the values used in the HRA.

It should be noted that the time scale for the HRA is 70 years, that is roughly from 2022 to 2092. The current analysis assumes that current emission rates will remain unchanged for 70 years. This is clearly not the case. Emissions from trucks will decline in future years in response to more stringent tailpipe emission limits. In addition, some diesel trucks will be replaced with electric trucks. All of these factors will lead to a decline emissions and health risks in the future. This decline in emissions was not taken into account in the HRA.

Response 2J: Comment noted. The updated summary table appears as Table 4 on the following pages.

Response 2K: Based on comments 2J and 2K, the emissions were re-calculated as shown in the following Tables 2 and 3. These emissions were used to

re-calculate the 70-year residential cancer risk as shown on the following Figure 2.

Issue of Idling Emission Factors

The analysis used a conservative idling emission factor of 0.0271 grams-veh-hr. This is based on an aggregate model years for calendar year 2023. We have re-calculated the idling emission factors using EMFAC 2021. See Table 1, following. The average idling emission factor is estimated to equal 0.007 g/veh-hr which is lower than the value previously used.

Issue of Truck Emission Factors for Various Speeds

Table 1, following, provides emission factors for various speeds including 5 and 25 mph. An average over 10 years was calculated and used the in the updated calculations.

Response 2L: EPS used a volume source with a 5-meter release height to conservatively estimate ground level concentration. In reality, DPM from truck exhaust is released at a substantial velocity and elevated temperature (350+ F) that results in the DPM being ejected well over 5 meters from the roadway. Actual plume height would exceed 25+ meters based on the elevated exhaust temperature and exit velocity that is typically 2,500 feet per min.

Response 2M: Plot files created with AERMOD used an emission factor of 1.6 gram/sec for each source instead of 1 gram/sec to account for the fact that emissions would not occur 24 hours per day. We assumed the emissions would occur 15 hours/day, 7 days/week.

Response 2N: Mandatory minimum exposure pathways were used to calculate the various health risks. A default deposition velocity of 0.05 m/sec was used.

Response 2O: Informational only. No response required.

Response 2P: The DEIR describes the requirements of District Rule 9510 and its applicability to the project on DEIR page 6-10 and how its implementation would reduce the potential emissions of criteria pollutants on pages 6-12 through 6-16. Compliance with applicable District rules and regulations, including submission of an AIA application, will be included in project Conditions of Approval adopted by the City of Stockton.

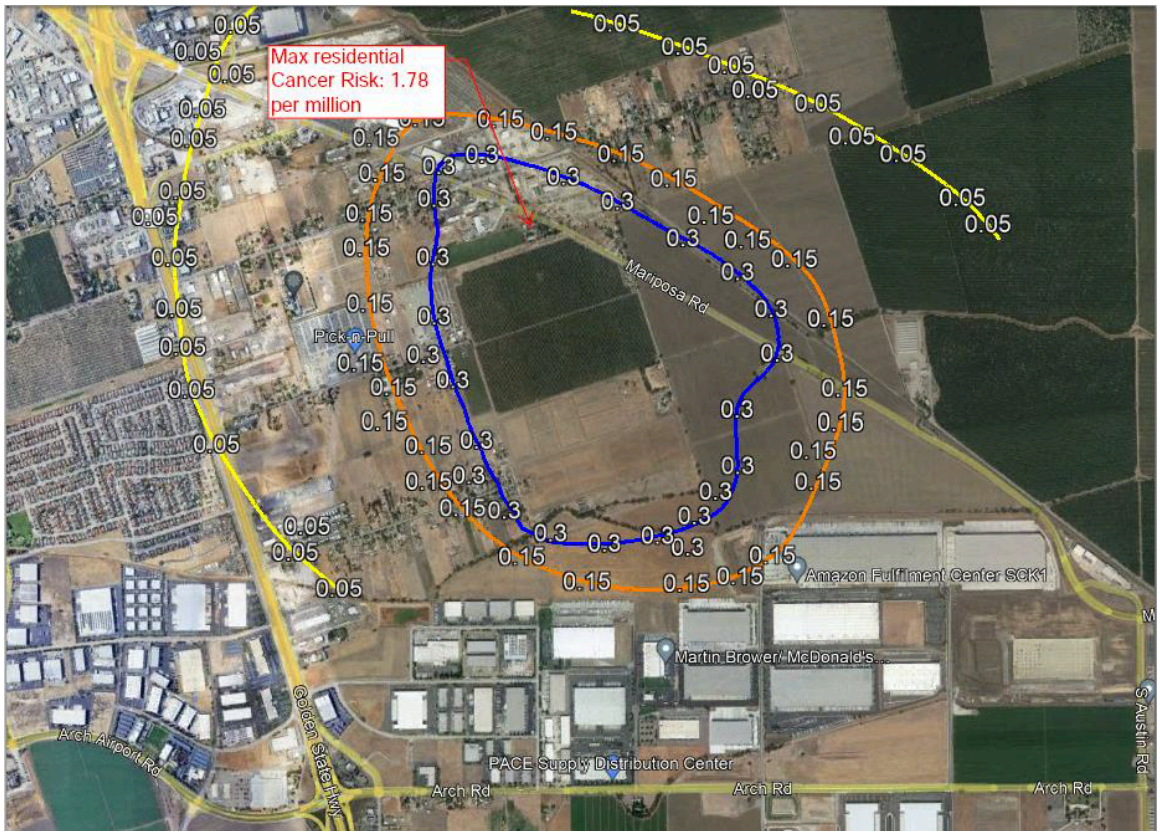
Response to SJVAPCD Comments, Figure 1
HARP MODEL EMISSIONS SCREENSHOT

Emission Inventory

Add Import Export Delete All Options Filter: All All

SrcID	StkID	ProID	PolID	PolAbbrev	Multiplier	Annual Ems (lbs/yr)	Max Hr Ems (lbs/hr)	MWAF
ALINE1	0	0	106990	1,3-Butadiene	1	0.031	3.49E-06	1
ALINE1	0	0	75070	Acetaldehyde	1	0.113	1.29E-05	1
ALINE1	0	0	71432	Benzene	1	0.49	5.59E-05	1
ALINE1	0	0	50000	Formaldehyde	1	0.271	3.09E-05	1
ALINE1	0	0	9901	DieselExhPM	1	1.06	0	1
ALINE2	0	0	106990	1,3-Butadiene	1	0.031	3.49E-06	1
ALINE2	0	0	75070	Acetaldehyde	1	0.113	1.29E-05	1
ALINE2	0	0	50000	Formaldehyde	1	0.271	3.09E-05	1
ALINE2	0	0	71432	Benzene	1	0.49	5.59E-05	1
ALINE2	0	0	9901	DieselExhPM	1	1.06	0	1
PAREA1	0	0	9901	DieselExhPM	1	4.42	0	1
ALINE1	0	0	100425	Styrene	1	0.028	3.14E-06	1
ALINE1	0	0	108883	Toluene	1	0.599	6.83E-05	1
ALINE1	0	0	95476	o-Xylene	1	0.203	2.32E-05	1
ALINE1	0	0	106423	p-Xylene	1	0.15	1.72E-05	1
ALINE2	0	0	100425	Styrene	1	0.028	3.14E-06	1
ALINE2	0	0	108883	Toluene	1	0.599	6.83E-05	1
ALINE2	0	0	95476	o-Xylene	1	0.203	2.32E-05	1
ALINE2	0	0	106423	p-Xylene	1	0.15	1.72E-05	1

Response SJVAPCD Comments, Figure 2
UPDATED 20-YEAR RESIDENTIAL CANCER RISK PROFILE



Response to SJVAPCD Comments, Table 1
VARIATION OF PM-2.5 WITH SPEED FOR HD TRUCKS FOR
MODEL YEARS 2015 TO 2023

2023	Annual	San Joaquin	T6 Instate I	Dsl	2015	70	50	RUNEX	5	PM2_5	0.004843102
2023	Annual	San Joaquin	T6 Instate I	Dsl	2015	70	50	RUNEX	10	PM2_5	0.004259043
2023	Annual	San Joaquin	T6 Instate I	Dsl	2015	70	50	RUNEX	25	PM2_5	0.002737575
2023	Annual	San Joaquin	T6 Instate I	Dsl	2015	70	50	RUNEX	35	PM2_5	0.00361173
2023	Annual	San Joaquin	T6 Instate I	Dsl	2016	70	50	RUNEX	5	PM2_5	0.004565511
2023	Annual	San Joaquin	T6 Instate I	Dsl	2016	70	50	RUNEX	10	PM2_5	0.004014928
2023	Annual	San Joaquin	T6 Instate I	Dsl	2016	70	50	RUNEX	25	PM2_5	0.002580666
2023	Annual	San Joaquin	T6 Instate I	Dsl	2016	70	50	RUNEX	35	PM2_5	0.003404717
2023	Annual	San Joaquin	T6 Instate I	Dsl	2016			IDLEX		PM2_5	0.006984364
2023	Annual	San Joaquin	T6 Instate I	Dsl	2017	70	50	RUNEX	5	PM2_5	0.004270409
2023	Annual	San Joaquin	T6 Instate I	Dsl	2017	70	50	RUNEX	10	PM2_5	0.003755414
2023	Annual	San Joaquin	T6 Instate I	Dsl	2017	70	50	RUNEX	25	PM2_5	0.002413859
2023	Annual	San Joaquin	T6 Instate I	Dsl	2017	70	50	RUNEX	35	PM2_5	0.003184646
2023	Annual	San Joaquin	T6 Instate I	Dsl	2017			IDLEX		PM2_5	0.006984364
2023	Annual	San Joaquin	T6 Instate I	Dsl	2017			PMBW		PM2_5	0.05586
2023	Annual	San Joaquin	T6 Instate I	Dsl	2017			PMTW		PM2_5	0.003
2023	Annual	San Joaquin	T6 Instate I	Dsl	2018	70	50	RUNEX	5	PM2_5	0.003957268
2023	Annual	San Joaquin	T6 Instate I	Dsl	2018	70	50	RUNEX	10	PM2_5	0.003480037
2023	Annual	San Joaquin	T6 Instate I	Dsl	2018	70	50	RUNEX	25	PM2_5	0.002236855
2023	Annual	San Joaquin	T6 Instate I	Dsl	2018	70	50	RUNEX	35	PM2_5	0.002951122
2023	Annual	San Joaquin	T6 Instate I	Dsl	2018			IDLEX		PM2_5	0.006984364
2023	Annual	San Joaquin	T6 Instate I	Dsl	2018			PMBW		PM2_5	0.05586
2023	Annual	San Joaquin	T6 Instate I	Dsl	2018			PMTW		PM2_5	0.003
2023	Annual	San Joaquin	T6 Instate I	Dsl	2019	70	50	RUNEX	5	PM2_5	0.003626477
2023	Annual	San Joaquin	T6 Instate I	Dsl	2019	70	50	RUNEX	10	PM2_5	0.003189138
2023	Annual	San Joaquin	T6 Instate I	Dsl	2019	70	50	RUNEX	25	PM2_5	0.002049875
2023	Annual	San Joaquin	T6 Instate I	Dsl	2019	70	50	RUNEX	35	PM2_5	0.002704435
2023	Annual	San Joaquin	T6 Instate I	Dsl	2019			IDLEX		PM2_5	0.006984364
2023	Annual	San Joaquin	T6 Instate I	Dsl	2019			PMBW		PM2_5	0.05586
2023	Annual	San Joaquin	T6 Instate I	Dsl	2019			PMTW		PM2_5	0.003
2023	Annual	San Joaquin	T6 Instate I	Dsl	2020	70	50	RUNEX	5	PM2_5	0.003279767
2023	Annual	San Joaquin	T6 Instate I	Dsl	2020	70	50	RUNEX	10	PM2_5	0.00288424
2023	Annual	San Joaquin	T6 Instate I	Dsl	2020	70	50	RUNEX	25	PM2_5	0.001853896
2023	Annual	San Joaquin	T6 Instate I	Dsl	2020	70	50	RUNEX	35	PM2_5	0.002445877
2023	Annual	San Joaquin	T6 Instate I	Dsl	2020			IDLEX		PM2_5	0.006984364
2023	Annual	San Joaquin	T6 Instate I	Dsl	2020			PMBW		PM2_5	0.05586
2023	Annual	San Joaquin	T6 Instate I	Dsl	2020			PMTW		PM2_5	0.003
2023	Annual	San Joaquin	T6 Instate I	Dsl	2021	70	50	RUNEX	5	PM2_5	0.00292064
2023	Annual	San Joaquin	T6 Instate I	Dsl	2021	70	50	RUNEX	10	PM2_5	0.002568422
2023	Annual	San Joaquin	T6 Instate I	Dsl	2021	70	50	RUNEX	25	PM2_5	0.001650899
2023	Annual	San Joaquin	T6 Instate I	Dsl	2021	70	50	RUNEX	35	PM2_5	0.002178059
2023	Annual	San Joaquin	T6 Instate I	Dsl	2021			IDLEX		PM2_5	0.006984364
2023	Annual	San Joaquin	T6 Instate I	Dsl	2021			PMBW		PM2_5	0.05586
2023	Annual	San Joaquin	T6 Instate I	Dsl	2021			PMTW		PM2_5	0.003

2023	Annual	San Joaquin	T6 Instate I	Dsl	2022	70	50	RUNEX	5	PM2_5	0.002554773
2023	Annual	San Joaquin	T6 Instate I	Dsl	2022	70	50	RUNEX	10	PM2_5	0.002246677
2023	Annual	San Joaquin	T6 Instate I	Dsl	2022	70	50	RUNEX	25	PM2_5	0.001444092
2023	Annual	San Joaquin	T6 Instate I	Dsl	2022	70	50	RUNEX	35	PM2_5	0.001905215
2023	Annual	San Joaquin	T6 Instate I	Dsl	2022			IDLEX		PM2_5	0.006984364
2023	Annual	San Joaquin	T6 Instate I	Dsl	2022			PMBW		PM2_5	0.05586
2023	Annual	San Joaquin	T6 Instate I	Dsl	2022			PMTW		PM2_5	0.003
2023	Annual	San Joaquin	T6 Instate I	Dsl	2023	70	50	RUNEX	5	PM2_5	0.002190483
2023	Annual	San Joaquin	T6 Instate I	Dsl	2023	70	50	RUNEX	10	PM2_5	0.001926319
2023	Annual	San Joaquin	T6 Instate I	Dsl	2023	70	50	RUNEX	25	PM2_5	0.001238176
2023	Annual	San Joaquin	T6 Instate I	Dsl	2023	70	50	RUNEX	35	PM2_5	0.001633547
2023	Annual	San Joaquin	T6 Instate I	Dsl	2023			IDLEX		PM2_5	0.006984364
2023	Annual	San Joaquin	T6 Instate I	Dsl	2023			PMBW		PM2_5	0.05586
2023	Annual	San Joaquin	T6 Instate I	Dsl	2023			PMTW		PM2_5	0.003
2023	Annual	San Joaquin	T6 Instate I	Dsl	2024	70	50	RUNEX	5	PM2_5	0.001826194
2023	Annual	San Joaquin	T6 Instate I	Dsl	2024	70	50	RUNEX	10	PM2_5	0.001605962
2023	Annual	San Joaquin	T6 Instate I	Dsl	2024	70	50	RUNEX	25	PM2_5	0.00103226
2023	Annual	San Joaquin	T6 Instate I	Dsl	2024	70	50	RUNEX	35	PM2_5	0.001361879
2023	Annual	San Joaquin	T6 Instate I	Dsl	2024			IDLEX		PM2_5	0.006984364
2023	Annual	San Joaquin	T6 Instate I	Dsl	2024			PMBW		PM2_5	0.05586
2023	Annual	San Joaquin	T6 Instate I	Dsl	2024			PMTW		PM2_5	0.003

Response to SJVAPCD Comments, Table 2
CALCULATION OF ON-SITE DPM EMISSIONS

IDLING EMISSIONS	Units	
Daily Vehicles		10,572
% Trucks		25%
HD Trucks Count	*(trucks/day)*	2,643
Truck Idling		
Idle rate/truck	*(min/truck)*	15
Idle rate all trucks	*(min/day)*	39,643
Idle time/day all trucks	*(hrs/day)*	661
idle time/yr all trucks	*(hrs/yr)*	241165
Emission Factor for Vehicle Idling	*(grams/vehicle-day)*	0.006980
Idling Emissions All Trucks	*(grams/yr)*	1,683.3
	(lbs/yr)	3.71

EMISSIONS FROM On-Site Truck Movement	Units	
Daily Truck Volume	(Trucks/day)	2,643
Distrance Travelled On-Site		
1 Truck	*(mile/truck)*	0.10
All Trucks/day	*(miles/day)*	264.29
All Trucks (per year)	*(miles/yr)*	96,466
Emission Factor (EMFAC 2017 for HD Trucks @ 5 mph	*(gram/mile)*	0.00336
Emissions		
1 Truck (per mile)	*(grams/mile)*	0.00336
All Trucks (per day)	*(grams/day)*	0.88801
All Trucks (per year)	*(grams/yr)*	324.13
	(lbs/yr)	0.714
TOTAL On-Site (Idling +On-Site Movement)	*(lbs/yr)*	4.42

Response to SJVAPCD Comments, Table 3
CALCULATION OF DPM EMISSIONS FROM
TRUCK TRAVEL WITHIN 0.25 MILES OF PROJECT

Emissions from Trucks		West Along Arch Road	South Along Newcastle Rd
Annual Vehicle Count	(truck trips/day) (truck trips/yr)	2,643 964,658	2643 964,658
Emission Factor for Vehicle Movement (Note 1)	(grams/mile)	0.0020	0.0020
Distance Travelled			
1 Truck Trip	(mile/truck trip)	0.25	0.25
All Truck Trips	(total miles/yr)	241,165	241,165
Emissions of DPM	(grams/yr) (lbs/yr)	482 1.06	482 1.06

Notes:
1. Emissions based on EMFAC 2017 for CY 2023 aggregate speed and model years for HD Trucks

Response to SJVAPCD Comments, Table 4
SUMMARY OF EMISSIONS

	On-Site	Off-Site[1]			
	HD Truck Idle,etc	HD Trucks	Autos + Light Duty Trucks		
Daily Trips	2,643	2,643	7,929		10571.59714
Pollutant					(lbs/yr)
DPM	4.42	2.12	0		6.55
1,3 Butadiene			5.35		0.03
Acetaldehyde			4.41		0.11
Benzene			72.16		0.49
Formaldehyde			20.51		0.27
Styrene			0.028		0.03
Toluene			0.599		0.60
o-Xylene			0.203		0.20
p-Xylene			0.150		0.15

Response 2Q: Please refer to Response to Comment 1M for a discussion of requirements that an EIR include "all feasible mitigation measures." The referenced section of the CEQA Guidelines contains no such requirement.

The comment provides substantial additional information related to Voluntary Emission Reduction Agreements (VERAs), which is hereby included in the Mariposa Industrial EIR. VERAs were discussed in the DEIR on page 6-10. Additional discussion regarding the mitigation potential of a VERA for the project has been included in Chapter 4.0 Errata of this FEIR.

Response 2R: The commentor states: "If the air quality modeling results are revised based on comment two of this letter, the District recommends that an Ambient Air Quality Analysis (AAQA) be performed for the Project if emissions exceed 100 pounds per day of any pollutant." Comment two concerned the miles used for heavy-duty truck trips in the analysis. This issue was addressed in Response to Comments 1G and 2B, and it was concluded that no change needed to be made to the CalEEMod run. Since the modeling did not change, then based on the District's comment, no AAQA needs to be conducted.

CO emissions from the project were determined in the DEIR to be well below SJVAPCD significance thresholds and therefore less than significant. The DEIR also evaluated the impacts of CO emissions near sensitive receptors; these impacts were also found to be less than significant. Since NOx emissions are not point source emissions but rather widely distributed with the vehicular traffic associated with the project, an AAQA would not provide information pertinent to the analysis of localized NOx impacts of the project.

Response 2S: In its comments CARB referenced a 2017 study of the *Effectiveness of Sound Wall-Vegetation Combination Barriers as Near-Roadway Pollutant Mitigation Strategies*. In the referenced study, a dispersion model was used to predict pollutant levels along transects perpendicular to selected southern California freeways. The effectiveness of vertical vegetation barriers was related to the density of vegetation and varied with wind speed. In brief, the study finds that "vegetation for the most part adds to the mitigating effect of a solid barrier . . . but that the impact is small, ranging from 25% next to the barrier to 10% at 300m from the barrier."

On the basis of this analysis, the use of vegetative barriers would be of limited or no benefit in addressing the project's air quality impacts along roadways providing access to and from the site, and if then only

to receptors in the immediate vicinity of the roadways. The HRA included in the DEIR did not identify and significant air toxic effects of project-related traffic, even in the immediate vicinity of Mariposa Road.

Response 2T: The development will be responsible for making proposed structures "solar ready" as required by the 2019 CA Energy Code, which requires the incorporation of design and electrical system features in proposed buildings that would facilitate installation of solar panels by future tenants. The applicant is committed to inducing future tenants to install solar panels as provided in the Additional Air Quality Improvement Measures, Appendix C of this FEIR.

Response 2U: The City appreciates the incentives available for promoting EV use. The provision of designated parking for Clean Air Vehicles, the installation of EV charging station infrastructure in proposed parking areas, and the installation of the charging equipment itself, is required by the 2019 CalGreen adopted by the City, Sections 5.106.5.2 and 5.106.5.3.

Response 2V: The DEIR Chapter 6.0 identified the range of SJVAPCD regulations and rules applicable to the project, including those noted in the District's comment. Most of the referenced regulations are related to stationary pollution sources. The project does not involve any known stationary sources that would be subject to SJVAPCD permitting requirements.

Response 2W: As discussed in previous responses, Chapter 6.0 the DEIR included a detailed discussion of the provisions of Rules 9410 and 9510 and their applicability to the project. These rules require employers with 100 employees or more to establish employer-based trip reduction programs.

Response 2X: Chapter 6.0 the DEIR included a detailed discussion of the provisions of Regulation VIII and its applicability to the project. Additional provisions for dust control during project construction are described in the Additional Air Quality Improvement Measures shown in Appendix C of this FEIR. These requirements will be applied to the project in the City's conditions of project approval.

Response 2Y: These rules apply to land development projects. Compliance with applicable SJVAPCD rules and regulations will be required of the project in the City's conditions of project approval.

Response 2Z: A copy of the District's letter was provided to the project applicant upon receipt.

ROB BONTA
Attorney General

State of California
DEPARTMENT OF JUSTICE

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October 7, 2021

Nicole Moore, Senior Planner
City of Stockton
Community Development Department
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E-mail: Nicole.Moore@stocktonca.gov

RE: CEQA Comment Letter on the Draft Environmental Impact Report for the Mariposa Industrial Park (State Clearinghouse Number: 2020120283)

Dear Ms. Moore:

Thank you for this opportunity to provide comments on the City of Stockton's Draft Environmental Impact Report (DEIR) prepared under the California Environmental Quality Act (CEQA) for the Mariposa Industrial Park Project (Project). The Attorney General submits these comments in the spirit of improving the analysis of the Project's environmental impacts to better inform Stockton's policymakers and the public and to ensure that the Project will take the necessary steps to minimize those environmental impacts. By properly disclosing and mitigating the Project's impacts, Stockton will be best situated to continue its economic development while also providing the requisite environmental stewardship and protecting the public health and safety of its residents.

I. THE PROJECT CONTINUES ONGOING WAREHOUSE DEVELOPMENT IN A REGION ALREADY SUFFERING FROM HIGH POLLUTION.

The Project is a proposed seven-building, 3,616,870 square-foot warehouse complex to be constructed in southeast Stockton. Most of the Project buildings will operate as "high-cube" warehouses, buildings each comprising hundreds of thousands of square feet for use 24 hours a day, 7 days a week, typically as fulfillment centers, parcel hubs, and/or cold storage warehouses. Conceptual plans show that the Project will include nearly 3,000 parking stalls, with 1,107 stalls for trucks and trailers. The Project is projected to attract over 12,000 vehicle trips per day, with a large fleet of trucks servicing the warehouses. Height exemptions allow the Project to be constructed up to 100 feet high, or over seven stories tall. 3A

The Project is located on a 203-acre, nine-parcel site just outside the City boundaries in unincorporated San Joaquin County, to be annexed as part of Project approval. Historically, this area of the county has been a mix of agricultural land, limited residential development, and smaller-scale industrial facilities. However, in the past decade, numerous large-scale industrial 3B

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warehouses consisting of tens of millions of square feet have been constructed, dramatically changing the landscape and adding tens of thousands of additional truck trips to this area.

South Stockton is an environmental justice community that has long borne a disproportionately high pollution burden compared to both northern Stockton and the rest of California. According to CalEnviroScreen 4.0, CalEPA's screening tool that ranks each census tract in the State for pollution and socioeconomic vulnerability, the Project's census tract is more polluted than 95% of the State's census tracts.[1] Here, multiple sensitive receptors are located near the Project site. Immediately to the west of the Project is a small community of residences on Marfargoa Road and a mobile home park. A substantially larger residential community sits across Highway 99 less than a mile to the west from these new industrial warehouse developments. To the south of the Project and several other recently constructed warehouses are multiple facilities managed by the California Department of Corrections and Rehabilitation, including two youth correctional facilities and a medical care facility serving thousands of California inmates.

3C

The Project is also located approximately one mile from the boundary of Stockton's designated AB 617 environmental justice community. Because of the extremely high levels of air pollution to which this environmental justice community is disproportionately exposed, the California Air Resources Board (CARB) has designated the area of south Stockton to the northwest of the Project as a top priority for reductions in emissions and improvements in air quality. Earlier this year, CARB approved Stockton's Community Emissions Reduction Program (CERP) after an extensive public process.[2] The CERP includes projected investments of over $32 million in emission reduction incentives and a variety of other clean air projects in the Stockton AB 617 community area and additional measures to reduce exposure to air pollution for sensitive receptors.

3D

[1] CalEnviroScreen 4.0, available at https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40 (as of October 7, 2021). CalEnviroScreen is a tool created by the Office of Environmental Health Hazard Assessment that uses environmental, health, and socioeconomic information to produce scores and rank every census tract in the state. A census tract with a high score is one that experiences a much higher pollution burden than a census tract with a low score. Office of Environmental Health Hazard Assessment, CalEnviroScreen 4.0 Report (February 2021), available at: https://oehha.ca.gov/media/downloads/calenviroscreen/document/calenviroscreen40reportd12021.pdf.

[2] See http://community.valleyair.org/selected-communities/stockton/.

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II. THE DEIR DOES NOT ACCURATELY DISCLOSE THE PROJECT'S ENVIRONMENTAL IMPACTS.

The purpose of CEQA is to ensure that a lead agency fully evaluates, discloses, and, whenever feasible, mitigates a project's significant environmental effects.[3] An EIR serves as an "informational document" that informs the public and decisionmakers of the significant environmental effects of a project and ways in which those effects can be minimized.[4] An EIR must clearly set forth all significant effects of the project on the environment.[5] Here, because of the methodologies used, the DEIR minimizes the Project's true impacts on air quality, green-house gas (GHG) emissions, transportation, and aesthetics. 3E

1. The DEIR Underestimates the Project's Already Significant Air Quality and GHG Impacts.

The methodology used in the DEIR to calculate emissions from truck trips travelling to and from the Project likely minimizes the Project's true air quality impacts. Even so, the DEIR concluded that the Project would create significant and unavoidable impacts on air quality, specifically NOx emissions above the significance threshold. Yet the Project's actual air quality impacts will likely be even greater than those disclosed. 3F

One concern is that the DEIR acknowledges that the Project's "high-cube" warehouses may include cold storage uses, but the air quality analysis does not account for such a use.[6] The operation of refrigerated warehouses requires use of trucks with transport refrigeration units (TRUs), which emit significantly higher levels of toxic diesel particulate matter (PM), NOx, and GHGs than trucks without TRUs. Despite the Project's future potential use as a cold storage facility, the DEIR's air quality modeling relies on the assumption that the Project will not use TRUs, minimizing the calculated emissions and associated air quality impacts.[7] The DEIR's air quality analysis must be adjusted to account for such use of TRUs and the corresponding increase in PM, NOx, and GHG emissions. 3G

In addition, the DEIR's air emissions model for the Project proposes a fleet mix that likely underestimates the use of medium and heavy-duty trucks emitting the highest levels of pollution. The DEIR assumes that vehicles travelling to the "high-cube" warehouses will only consist of approximately 20% medium and heavy-duty trucks, a significantly lower figure than 3H

[3] Pub. Resources Code, §§ 21000-21002.1.

[4] CEQA Guidelines, § 15121, subd. (a).

[5] Pub. Resources Code, § 21100, subd. (b)(1); CEQA Guidelines, § 15126.2, subd. (a).

[6] DEIR, Appendix C, CalEEMod Analysis, p. 32.

[7] *Ibid*.

the actual numbers that typically visit a logistics center or distribution facility.[8] Because medium and heavy-duty diesel trucks generate significantly more emissions than passenger automobiles, the use of such a projection for the model likely significantly underestimates the Project's true air quality impacts from truck trips. The DEIR's air quality model should be updated to accurately reflect the mix of heavy and medium duty trucks the Project will generate. 3H

Another problem is that the air modeling in the DEIR assumes that trucks traveling to and from the Project will only drive approximately 10 miles per trip.[9] While this may be accurate for trucks traveling between the Project and the Port of Stockton, a substantial number of trucks servicing the Project will drive significantly longer distances than 10 miles, including trucks from the Bay Area. By underestimating the miles that trucks will travel to and from the Project, the DEIR also underestimates the Project's air quality impacts. 3I

Critically, the same flaws that infect the DEIR's air quality analysis cause the DEIR to underestimate the Project's GHG emissions. The DEIR's use of artificially low numbers for truck trips, miles travelled, and the quantity of medium and heavy-duty trucks travelling to and from the project underestimates the Project's already significant and unavoidable GHG impacts. 3J

Finally, the DEIR's air quality analysis must discuss the Project's compliance with Stockton's CERP under AB 617. A DEIR must clearly identify any inconsistencies between the Project and applicable plans, yet the Project DEIR makes no mention of AB 617 or Stockton's CERP.[10] Stockton's CERP specifically notes that mobile sources from Highways 5 and 99 crossing through the community are the major contributor to the dangerous levels of air pollution in the AB 617 area. In fact, NOx emissions from mobile sources currently comprise *nearly three-quarters* of the total NOx emissions in the AB 617 community, a percentage that is expected to only increase as Stockton continues developing projects that attract more heavy duty truck traffic.[11] While this Project is located just outside the AB 617 boundary, the thousands of daily truck and automobile trips generated by the Project will use those same highways to reach the Project site, significantly adding to the air pollution burden in the designated AB 617 community. Rather than reducing emissions as intended by Stockton's CERP, the Project will likely significantly increase exposure to air pollution in the south Stockton environmental justice community. The DEIR must evaluate the Project's significant air quality impacts on the AB 617 designated area and the Project's compliance with the CERP. 3K

[8] *Ibid*. A 2016 study from the Institute of Transportation Engineers found that high-cube warehouses may expect a fleet mix of up to 39 percent trucks. *See* Inst. Trans. Eng'rs, *High-Cube Warehouse Vehicle Trip Generation Analysis* (Oct. 2016) at 13, *available at* https://www.ite.org/pub/?id=a3e6679a%2De3a8%2Dbf38%2D7f29%2D2961becdd498

[9] DEIR, Appendix C, CalEEMod Analysis, p. 32.

[10] CEQA Guidelines, § 15125, subd. (d).

[11] See CERP, Figure 3-6, Tables 3-2 and 3-3.

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2. The DEIR Must Properly Analyze the Project's Cumulative Air Quality Impacts.

The DEIR also fails to properly analyze cumulative air quality impacts. Despite the DEIR's conclusion that the Project will exceed the significance threshold for NOx, the DEIR concludes that the Project will have no significant cumulative impacts. The basis for this conclusion is the incorrect assertion that, "CalEEMod estimates of air pollutant emissions… indicate that neither SJVAPCD construction nor operational significance thresholds would be exceeded, with assumed application of SJVAPCD rules."[12] But even the flawed CalEEMod analysis in the DEIR acknowledges that the Project will results in NOx emissions above the significance threshold. The DEIR's conclusion that the Project will not result in cumulative impacts to air quality is simply inaccurate. 3L

Further, the DEIR's analysis and conclusion completely ignores the large number of other warehouses in the area, which have cumulatively brought thousands of diesel trucks to streets where sensitive receptors are present. CEQA requires discussion of the Project's cumulatively significant impacts in the context of the expansion of nearby warehouses and the related increase in diesel truck emissions.[13]

3. The DEIR Must Properly Analyze the Project's Transportation Impacts.

CEQA requires that the DEIR analyze the Project's transportation impacts, including the "vehicle miles travelled" (VMT), or the amount and distance of travel attributable to the Project.[14] Because the CalEEMod assumptions underestimate the amount of miles travelled by traffic to and from the Project, the DEIR, to the extent it relies on the CalEEMod results, does not adequately analyze the Project's VMT impacts. While the DEIR still concludes the Project will likely result in significant and unavoidable increases in VMT, the Project's anticipated increase in VMT will likely be greater than those disclosed. The DEIR must be corrected to properly account for the Project's additional VMT. 3M

4. The DEIR Must Properly Analyze the Project's Aesthetic Impacts

The DEIR's analysis of the Project's aesthetic impacts on the nearby residential community does not properly analyze the Project's foreseeable height. The Project allows for the construction of 100-ft.-high warehouse buildings, but the DEIR only analyzes the aesthetic impacts of buildings that are 32 to 36 ft. high, finding even in that case that the Project "may 3N

[12] DEIR 18-5.

[13] CEQA Guidelines, Appendix G, § 15130.

[14] CEQA Guidelines § 15064.3.

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partially obstruct scenic vistas."[15] Yet, based on undisclosed "preliminary drawings," the DEIR asserts that, if the 100-ft. warehouses were built instead, undisclosed setbacks would result in those warehouses – which would be three times *taller* than the buildings whose aesthetic impacts the DEIR analyzed – creating "substantially *less* vertical view blockage [emphasis added]."[16] The DEIR must publicly release those preliminary drawings and explain its determination that setbacks for the 100-ft. buildings will result in a reduction in aesthetic impact.

3N

III. THE PROJECT MUST INCORPORATE ALL FEASIBLE MEASURES TO MITIGATE SIGNIFICANT IMPACTS.

An EIR must describe and adopt all feasible mitigation measures to minimize the significant environmental impacts of a project.[17] "Where several measures are available to mitigate an impact, each should be discussed and the basis for selecting a particular measure should be identified."[18] The lead agency is expected to develop mitigation measures in an open process and consider measures proposed by other interested agencies and the public.[19]

Because of the substantial emissions that would be generated by vehicular traffic related to the Project, the DEIR found significant and unavoidable air quality, GHG, and transportation impacts. Yet the DEIR does not incorporate several important feasible mitigation measures that would reduce these impacts. In fact, the DEIR appears to include only one project-specific mitigation measure to reduce air quality impacts, one entirely unrelated to the Project's actual significant and unavoidable NOx impacts.[20] Similarly, despite the Project's significant and unavoidable GHG impacts, the DEIR includes only one project-specific mitigation measure to reduce GHG emissions, requiring only that three percent of the construction vehicle and emission fleet be electric-powered.[21] These two requirements surely do not represent the universe of feasible mitigation measures required by CEQA.

3O

[15] DEIR 4-6.

[16] *Ibid.*

[17] Pub. Resources Code, § 21002; CEQA Guidelines, § 15126.4, subd. (a)(1).

[18] CEQA Guidelines, § 15126.4, subd. (a)(1)(B).

[19] *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 93.

[20] See mitigation measure AIR-1: "The project applicant, to reduce carbon monoxide concentrations to an acceptable level, shall contribute fair-share costs to an improvement on the Mariposa Road and Carpenter Road intersection that would widen the northeast-bound Carpenter Road approach to include an exclusive northeast-bound-to northwestbound left-turn lane, and a combined through/right-turn lane" [DEIR 2-7].

[21] See mitigation measure GHG-1 [DEIR 2-12].

1. Stockton Must Ensure that All Permit Conditions to Mitigate Environmental Impacts Are Clear and Enforceable.

While apparently not mitigation measures, Appendix B of the DEIR includes a series of "Additional Air Quality Improvement Measures" designed to lessen the Project's air quality impacts. Of these additional "improvement measures," the DEIR asserts that Stockton will be "requiring their implementation in the approval" of the Project.[22] We suggest that the City clarify how precisely Appendix B will be incorporated into the Project, what precisely is required by each party (e.g., owner, tenant, etc.), and how the City will ensure compliance.

While helpful to reduce air quality impacts, several measures in Appendix B appear to simply require that the project applicant not violate existing laws. For example, Measure 2 requires that heavy-duty trucks used during construction "meet current CARB regulations." Measure 3 requires that construction contacts "require compliance with all applicable air quality regulations." Measure 4 requires that site operations "comply with applicable air quality regulations." But requiring compliance with existing laws is the *minimum* standard, and these measures are not "Additional Air Quality Improvement Measures." They are merely the baseline.

Other measures in Appendix B appear to be vague and unenforceable. For example, Measure 5 requires that lower-emission off-road construction equipment be used "where available" to "assist" in construction. What those terms mean in practice is left undefined. Measure 11 includes several critically important air quality measures, like requiring electric truck charging stations, but only "proportional to demand." It is unclear what demand is being referenced here, or how the City will quantify such demand during the construction phase given that no tenant has been identified. Further, other measures in Appendix B are entirely optional. For example, Measure 1 requires that the tenant facilitate non-vehicular travel by employees only "if agreeable by future tenants." While promoting alternative modes of travel for employees can reduce air quality impacts, Measure 1 as currently drafted is merely a suggestion, not a permit condition. The DEIR must clarify how these measures will be executed in practice.

Adding to the confusion, Measure 10 of Appendix B appears to be related to compliance but lacks any context or explanation. Specifically, Measure 10 requires the preparation of "a detailed plan for implementation of the Air Quality Improvement Measures described in Appendix V of the certified Final EIR for the Sanchez-Hoggan Annexation Project." But the DEIR does not include an Appendix V, and any requirements for an enforcement plan related to mitigation measures or permit conditions must be clearly explained. To the extent that the DEIR is incorporating an implementation plan required by a different EIR for a different project, in order to properly serve as an informational document, this DEIR should include the plan for the benefit of the City's decisionmakers and the public.

[22] DEIR, 3-9.

3P

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2. The Project Should Include Additional Feasible Mitigation Measures.

Regardless of how they are characterized, the measures in Appendix B fall short of the feasible air quality mitigation required here.[23] Earlier this year, the Attorney General's Office released a document titled, "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act"[24] that includes a myriad of feasible air quality and GHG mitigation measures, all of which have already been required by other warehouse projects in California. We include that guidance by reference to help Stockton comply with CEQA's statutory requirements. Many of those included mitigation measures are feasible here and should be required to reduce the Project's significant and unavoidable environmental impacts.

3Q

Examples of additional feasible mitigation measures include the following:

- Requiring all heavy-duty vehicles entering or operated on the Project site to be zero-emission beginning in 2030;
- Requiring on-site equipment, such as forklifts and yard trucks, to be electric, with the necessary electrical charging stations provided;
- Requiring tenants to use zero-emission light- and medium-duty vehicles as part of business operations;
- Constructing electric truck charging stations proportional to the number of dock doors at the Project;
- Constructing electric plugs for electric transport refrigeration units at every dock door, if the warehouse use could include refrigeration;
- Constructing electric light-duty vehicle charging stations proportional to the number of parking spaces at the project;
- Installing solar photovoltaic systems on the Project site of a specified electrical generation capacity, such as equal to the building's projected energy needs;
- Increasing physical, structural, and/or vegetative buffers between the Project and sensitive receptors to the west to reduce pollutant dispersal;
- Locating warehouse dock doors and other onsite areas with significant truck traffic and noise on the north and east, away from sensitive receptors;
- Constructing electric truck charging stations proportional to the number of dock doors at the Project;

[23] The DEIR asserts that the measures in Appendix B are "the Attorney General Office's suggested measures" and measures "prescribed by the California Department of Justice." [DEIR 10-11, 18-5]. Despite these claims in the DEIR, Appendix B does not accurately reflect the Attorney General's recommendations for feasible air quality mitigation measures.

[24] The Attorney General's guidance is available at: https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/warehouse-best-practices.pdf.

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- Installing solar photovoltaic systems on the Project site of a specified electrical generation capacity, such as equal to each building's projected energy needs;
- Meeting CalGreen Tier 2 green building standards, including all provisions related to designated parking for clean air vehicles, electric vehicle charging, and bicycle parking;
- Posting signs at every truck exit driveway providing directional information to the truck route;
- Installing and maintaining, at the manufacturer's recommended maintenance intervals, air filtration systems at sensitive receptors within a certain radius of facility for the life of the Project; and
- Restricting the turns trucks can make entering and exiting the facility to route trucks away from sensitive receptors.

These measures appear to be feasible here, and they would reduce the Project's significant impacts on the environment and the surrounding environmental justice community. We urge the City to adopt these common sense measures into the Project.

IV. CONCLUSION

We appreciate the opportunity to submit these comments on the Project and hope that they help Stockton improve the DEIR and applicable mitigation measures. If Stockton has any questions or would like to discuss these comments further, we encourage City staff to reach out to our Office.

Sincerely,

SCOTT LICHTIG
Deputy Attorney General

For ROB BONTA
Attorney General

3Q

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Response to Comment #3, California Department of Justice

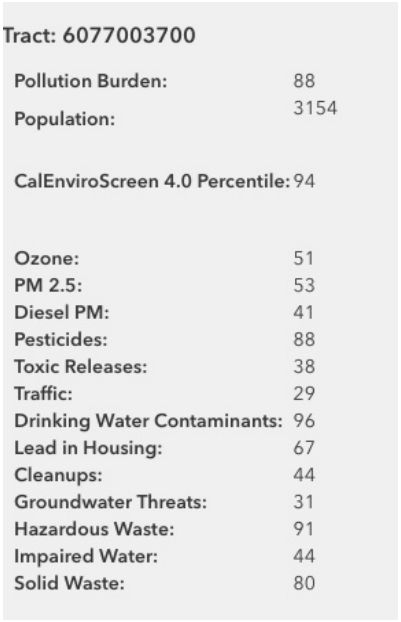
Response 3A: Comment 3A repeats information obtained from the DEIR but makes no comment on the DEIR itself. No response is required. The comment notes that height "exemptions" allow proposed buildings to be up to 100 feet high; these are proposed height standards, that are evaluated in the DEIR and subject to approval by the City of Stockton.

Response 3B: Comment 3B provides the Department of Justice's (CDOJ) qualitative perspective on land development in the southeast Stockton area and the transition of this area from agricultural to urban uses. This is not a comment on the DEIR but provides background for the commenter's other later statements. No response is required.

Response 3C: The commenter states that South Stockton bears a disproportionately high pollution burden compared to north Stockton and the rest of the State citing CalEPA's CalEnviroScreen 4.0 online mapping program. CalEnviroScreen provides generalized scores of "pollution burden" as defined by the program but is not an accurate tool for quantifying the air pollution exposure of a geographic area. The CalEnviroScreen scores for census tracts are composites of a variety of environmental justice data, including a number of socio-economic factors. The Pollution Burden scores for Census Tract 6077003700 in which the project is located, isolated from socio-economic conditions and shown in the CalEnviroScreen 4.0 readout for the tract below, are dominated by high scores for non-air pollution indicators such as pesticides, drinking water contamination, lead in housing, hazardous waste and solid waste. The project would not contribute to or exacerbate these problems; development of the site would, through soil testing and remediation if required, reduce any pesticide concerns associated with the site. Scores for air pollution-related components such as ozone, PM2.5, Diesel PM and Toxic Releases range from 38 to 53, all in the lower 2/3 of the individual Pollution Burden scores.

It is questionable whether rural neighborhoods to the west and north of the project would be substantially exposed to air pollution, especially air toxics, generated by the project. Prevailing winds throughout the Stockton area are from the north and northwest, placing Marfargoa Road and other nearby residences predominantly upwind of air pollution that may be generated by the project. This is illustrated in Figures 4-2, 4-3 and 4-4 of the HRA prepared for the Mariposa Industrial Park project (DEIR Appendix I). These figures show the distribution of potential cancer risk associated with the project is aligned northwest and southeast along the Mariposa Road corridor with an incidental and less than significant health risk effect on the residential neighborhoods closest to the project. The HRA-predicted

cancer risk at the much more distant residential and California Department of Corrections and Rehabilitation facilities would not be meaningfully affected by the project. Even the HRA for the Sanchez project, located immediately north of the California Department of Corrections and Rehabilitation facilities, found that the Sanchez-Hoggan project would not result in significant increases in cancer risk; Figure 4-3 of the Sanchez HRA predicts that cancer risk originating from that project would be less than 0.1 cancers per million population.



Tract: 6077003700

Pollution Burden:	88
Population:	3154
CalEnviroScreen 4.0 Percentile:	94
Ozone:	51
PM 2.5:	53
Diesel PM:	41
Pesticides:	88
Toxic Releases:	38
Traffic:	29
Drinking Water Contaminants:	96
Lead in Housing:	67
Cleanups:	44
Groundwater Threats:	31
Hazardous Waste:	91
Impaired Water:	44
Solid Waste:	80

Moreover, CalEnviroScreen summarizes conditions for an entire Census tract and does not account for any localized differences within a Census tract. For example, the number of residences near the project site is limited. These more localized potential impacts were analyzed in the DEIR. While the commenter refers to existing residential areas in the general vicinity of the project, no information is submitted that would demonstrate that the project would substantially worsen the existing level of air pollution exposure in these neighborhoods. The DEIR, on the other hand, does provide real data from widely accepted and available modeling tools that demonstrates that the residential areas would not be exposed to significant health risk effects.

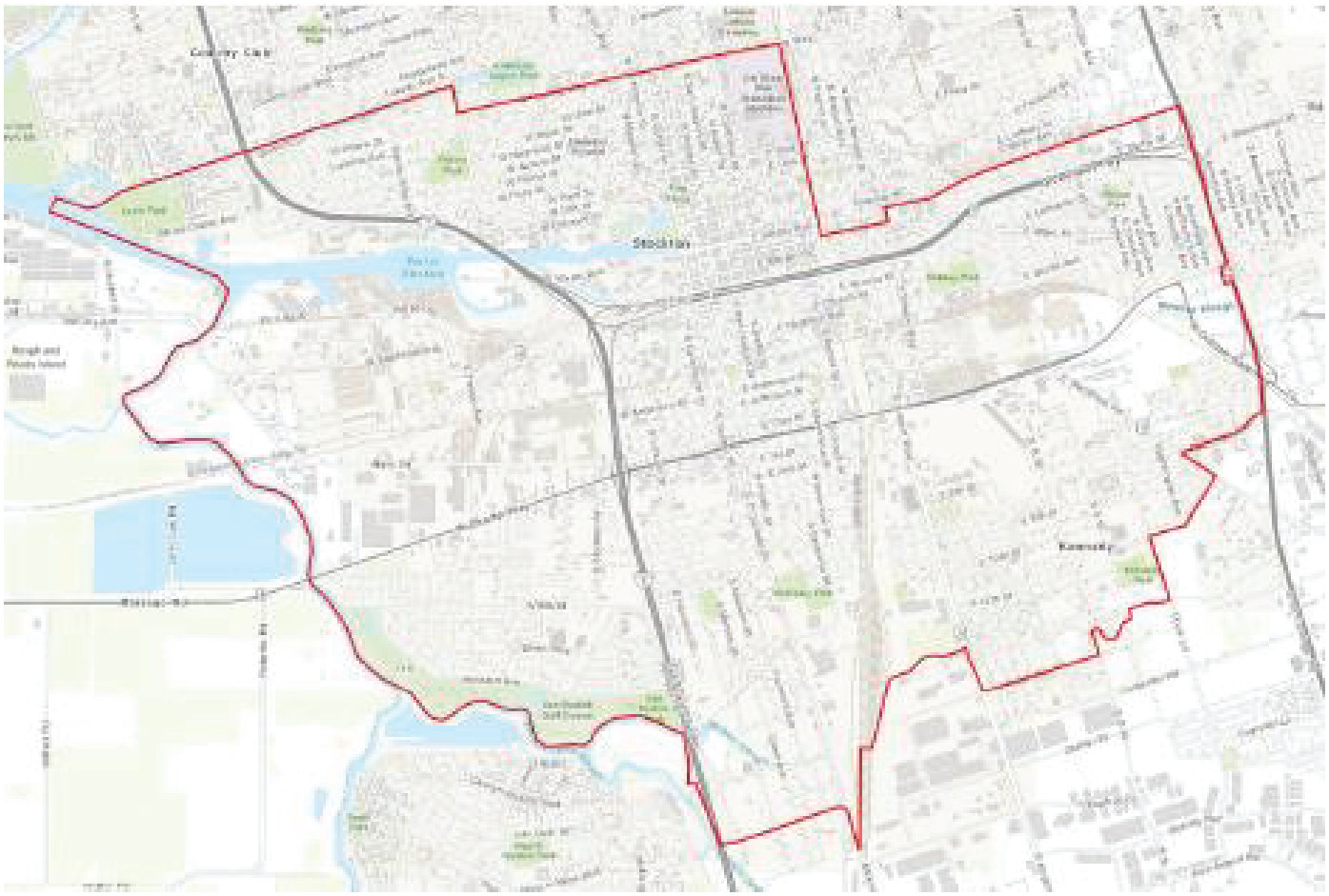
Response 3D: Statewide concerns regarding disproportionate local impacts of air pollution in disadvantaged communities led to the adoption of AB 617 in 2017. The intent of AB 617 is to rectify disproportionate pollution exposure by establishing monitoring networks; developing, implementing and tracking emission reduction programs; and funding

these programs with the assistance of local steering committees in identified Community Emissions Reduction Program (CERP) communities. Stockton was selected to receive AB 617 planning and funding resources resulting in preparation and adoption of the Stockton CERP in 2021, which is applicable to the CERP area shown on Figure 3-1 of this FEIR.

CERP is concerned entirely with pollution sources within the CERP area and with defining, funding and implementing programs that will address concerns in the CERP area. Section 3.2 of the CERP identifies major pollution sources in the community, including on-road vehicular emissions from light to heavy-duty vehicles as well as trains and commercial equipment. Notable sources also include more than 15 named stationary sources within the CERP area, which do not include warehousing and distribution uses.

Programs for addressing pollution concerns include the range of SJVAPCD regulatory programs, which are discussed in the DEIR and applicable to the project as well as a number of initiatives for reducing the cumulative exposure burden in the CERP area. These initiatives include installation of vegetative barriers, urban greening, installation of air filtration in schools and residences, expanded community outreach, reducing vehicle miles traveled, incentives for replacing fossil-fueled heavy-duty vehicles with less polluting ones, heavy duty truck re-routing, replacing trucks with zero and near-zero emission technology and limitations on truck idling and plug-ins.

The project is not within the Stockton CERP area and would not contribute substantially to pollution concerns in that upwind area (see Response 3D) or inhibit implementation of the various CERP programs, for the reasons discussed in previous responses. Many of the CERP programs that will contribute to pollution reduction within the CERP are SJVAPCD programs funded by fees paid under Rule 9510; the project can be expected to make substantial contributions to these fees, which can be reinvested in air pollution control in the Stockton CERP and elsewhere in the community.



SOURCE: Community Emmisions Reduction Program, March 18, 2021

Figure 3-1
STOCKTON AB 617 COMMUNITY

As noted in the air quality measures identified in FEIR Appendix C, the project will incorporate many of the CERP strategies listed above including use of less- or zero-polluting heavy duty vehicles, use of zero-emission on-site equipment, limitations on truck idling and providing infrastructure for plug-in vehicles.

Response 3E: Comment 3E describes provisions of the Public Resources Code and the CEQA guidelines that govern the preparation of EIRs. The Mariposa Industrial Park DEIR was prepared in accordance with the relevant requirements of CEQA. The commenter asserts that the DEIR has failed to conform with this standard, as illustrated in the series of comments that follow (Comments 3F, 3G, 3H, etc.). However, as the following responses demonstrate, the DEIR has in each case provided a well-reasoned, comprehensive and conservative disclosure of the potential environmental effects of the project.

Response 3F and 3G: These two comments together indicate that the air quality effects of cold storage projects were not addressed in the air quality modeling used in the DEIR. This is acknowledged and discussed in Response to Comment 1F. Cold storage impacts were not addressed in the DEIR intentionally, because the project does not include a cold storage component; this was been explicitly stated by the project applicant and reflected in air quality modeling for the project. In the event that a future tenant proposes cold storage, additional air quality impact analysis will be required by the City of Stockton together with any additional mitigation measures that might be needed to address significant effects.

Response to Comment 3H: See Response to Comment 1H. In Comment 1H, the fleet mix assumptions used in the DEIR air quality analysis are explained and, after consideration of this comment, regarded by the City as adequate for the purposes of the DEIR. There is no evidence that the DEIR "likely" underestimates the use of medium and heavy-duty trucks.

The commenter cites 2016 data from the Institute of Transportation Engineers (ITE) regarding truck trip percentages from high-cube warehouses. More recent data from ITE indicate trucks as a percentage of total vehicles are 19.9 percent during the a.m. peak hour and 17.8 percent during the p.m. peak hour. These percentages are close to the fleet mix percentage for all truck traffic used in the CalEEMod run for the project. The preparer of the project traffic study notes that a 20 percent truck trip percentage would be reasonable (Shijo pers. comm.). However, this percentage is not significantly greater than the one used for in the CalEEMod run for the project, and the use of this percentage would not substantially alter the conclusions reached in the DEIR

regarding operational emissions or exposure of sensitive receptors. See also Response to Comment 1G.

The commenter's footnote cites the 2016 ITE report as identifying a potential fleet mix of up to 39%. This is a maximum value for truck percentage in the referenced report and is not meant to represent an average or mean value, which would be useful for modeling. Use of this value in the modeling of total project rip generation would greatly overestimate the percentage of trucks associated with the project.

Response to Comment 3I: As discussed in more detail in Response to Comment 1G, the truck trip length setting in CalEEMod was set at 15 miles, approximately twice the default value in the CalEEMod model. As a result, the model results are considered conservative and, based on the available information, likely overestimate emissions associated with truck trips.

Response 3J: See the previous responses regarding truck trip length and fleet makeup, which are not flawed and are, rather, supported by substantial evidence, including professional judgment of the study preparers. The assumption that the DEIR's estimate of air emissions, and therefore GHG emissions, is underestimated is incorrect and not supported by evidence. Both criteria pollutant and GHG emissions from the project have been estimated conservatively.

Response 3K: The commenter questions the project's compliance with the Community Emissions Reduction Program, or CERP for Stockton. Also discussed in Response to Comment 1C, the Stockton CERP was prepared and approved by CARB pursuant to AB 617, which was itself adopted in July 2017. AB 617 initiated a statewide effort to monitor and reduce air pollution, and improve public health, in communities that experience disproportionate burdens from exposure to air pollutants through new community-focused and community-driven actions. Portions of Stockton, excluding the project site and vicinity, were identified as such a community.

This portion of Stockton was prioritized by the SJVAPCD and subsequently selected by CARB as one of the third-year communities in the state to receive clean air resources newly available under AB 617, based on a technical analysis of several pollution and poverty-related criteria. The Stockton CERP document provides a description of the Stockton AB 617 Community, including geographical boundaries, and describes air quality challenges impacting community residents. A technical analysis describes the sources of pollution impacting the community and the location of sensitive receptors within the community. Sources of pollution that are of particular concern to

CERP community members are highlighted, and strategies for reducing air pollution impacts and health risks from these sources were evaluated as part of a public engagement process and ultimately selected for implementation in the community. The boundaries of the Stockton AB 617 Community (Figure 3-1) extend west to the Port of Stockton and east to SR 99. The project site is outside of the CERP community boundary.

The CERP is not an air quality plan, but a program aimed at reducing existing pollution sources, which was developed in collaboration with SJVAPCD, ARB, the City, and community members. It is not a regulatory program nor does it establish any performance standards for new development that must or even should be met, either within or outside the defined community boundary. The project site is outside the boundaries of the Stockton AB 617 Community – the nearest portion of the site is approximately 0.7 miles east of the community boundary – and the project is not within the purview of the CERP. The Marfargoa Road and Clark Drive residential neighborhoods west of the site are also not within the CERP area.

According to the Stockton CERP, the majority of emissions impacting the Stockton AB 617 community come from passenger vehicle and heavy-duty truck emissions from major freeways, interchanges, and main regional roads that run through the community. It is anticipated that project truck traffic would use and contribute to traffic on SR 99 and other freeways that pass through the Stockton AB 617 Community. There are no reasonable alternatives to doing so – attempts to reroute truck traffic from freeways in the Stockton AB 617 Community would not be enforceable. Even if project truck traffic could be rerouted, this would only shift potential environmental impacts elsewhere.

CERP programs for addressing pollution concerns include the range of SJVAPCD rules and regulations, which are, regardless of the location of the project outside the CERP boundary, discussed in the DEIR and below as applicable to the project as well as a number of initiatives for reducing the cumulative exposure burden in the CERP area. These initiatives include installation of vegetative barriers, urban greening, installation of air filtration in schools and residences, expanded community outreach, reducing vehicle miles traveled, incentives for replacing heavy duty with less polluting ones, heavy duty truck re-routing, replacing trucks with zero and near-zero emission technology, limitations on truck idling and plug-ins and replacement of older and more polluting vehicles and off-road equipment. Many of these programs are or can be funded using mitigation fees collected under Rule 9510. There is no evidence that installation of air filtration in

schools and residences or similar provisions are warranted by existing or predicted future air pollution levels. Other CERP measures, such as establishing standards for heavy duty truck emission, using zero and near-zero emission equipment on the project site, limitations on truck idling and providing special parking for Clean Air Vehicles and infrastructure for plug-in vehicles, will be incorporated into the project. The project is also required to comply with APCD Rule 9510, which will generate fees that can be used by the District for replacement of older and more polluting vehicles and off-road equipment.

The commenter asserts that the project "will likely significantly increase exposure to air pollution in the south Stockton environmental justice community," supported only by the commenter's general assertions that the project's air quality analysis underestimates air quality impacts. These assertions have already been addressed as inaccurate in previous responses to this commenter.

The project will contribute to regional criteria pollutant levels, and with all proposed mitigation measures may or may not result in a significant air quality effect on the regional airshed. As discussed in the DEIR and the HRA, the project would not result in any significant carbon monoxide or air toxic impacts.

DEIR Chapter 6.0, Air Quality, discusses regulations designed to reduce pollutant emissions from trucks, which are one major source of pollution in the Stockton AB 617 Community, as well as SJVAPCD Rule 9410, which requires major employers to implement programs designed to reduce vehicle traffic. DEIR Chapter 16.0, Transportation, describes these existing programs which are applicable to the project as well as mitigation measures that are intended to reduce vehicle traffic to and from the project site. DEIR Appendix B lists Additional Air Quality Improvement Measures, which would be part of the project, that describes various measures to reduce air quality impacts, including some related to transportation. These DEIR provisions have been revamped for the purposes of the Final EIR as shown in Appendix C. Implementation of these measures, rules, and regulation would minimize the impacts that project truck and vehicle traffic would have on air quality in the area, including the Stockton AB 617 Community.

Response 3L: As noted by the commenter, the subject section of the cumulative impact analysis is inconsistent with the findings of the air quality analysis in DEIR Chapter 6.0, Air Quality. Based on the Chapter 6.0 information, and as noted in that chapter, the project has the potential to result in significant air quality effects based on NOx emissions,

which would not be reduced to a less than significant level with quantifiable mitigation measures. The project will, however, also be subject to a range of other non-quantifiable air quality improvement measures (FEIR Appendix C) that would contribute to reduction of the project's air pollution emissions; the effectiveness of these measures, and whether or not they might reduce the project's emissions to a less than significant level, is unknown. For this reason, the DEIR identified criteria pollutant emissions as potentially significant. On this basis, the project could be expected to make a considerable contribution to cumulative impacts on air quality. See Chapter 4.0, Errata, for revisions to the text in Chapter 18.0, Cumulative Impacts, which will resolve this inconsistency in the DEIR document.

The commenter states that the DEIR should have discussed existing and proposed warehouse development as part of the cumulative impact analysis. This approach is known as a "project list" approach to cumulative impact analysis. CEQA Guidelines Section 15130(b) states that the necessary elements to an adequate discussion of significant cumulative impacts are either 1) a list of past, present, and probable future projects producing related or cumulative impacts, or 2) a summary of projections contained in an adopted local, regional, or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. The City chose to discuss cumulative impacts using the latter approach, relying on the 2018 impact analysis in the Stockton General Plan 2040 and its associated General Plan EIR. The Stockton General Plan has designated the project site and much of the surrounding area for industrial development, which would include the full development of this area ("buildout") as was considered in the Stockton General Plan EIR as well as the many industrial developments referenced by the commenter. As such, the "plan approach" for discussing cumulative impacts was considered adequate for this project.

Response 3M: The VMT impacts of the project were analyzed in Chapter 16.0 of the DEIR. The VMT requirement, standards of significance and methodology were discussed on pages 16-9, 16-10, 16-13 through 16-16 of the DEIR. The VMT effects of the project are discussed on pages 16-24 through 16-26. The potential VMT generation by the project was not quantified on the basis of the CalEEMod modeling but was identified as a function of the trip generation estimates produced by the project traffic study. In the context of this analysis, CalEEMod is cited as a basis for predicting the potential for VMT reduction as a result of the mitigation measures introduced and discussed. Because VMT reduction resulting from mitigation cannot be precisely quantified, the potential for VMT impact was conservatively considered Significant and Unavoidable for the purposes of the DEIR.

Response 3N: The methodology for the analysis of view obstruction was disclosed in Chapter 4.0 of the DEIR. The Conceptual Site Plan shown in Figure 3-2 of the DEIR placed proposed industrial buildings in relatively close proximity to the west site boundary, resulting in potential vertical view obstruction of 9 to 23 degrees from horizontal at the analysis points. For illustrative purposes, the DEIR also reported on analysis of potential view blockage associated with a preliminary site plan that involved development of 100-foot buildings that was being considered by the project applicant. Even though this alternative design would involve buildings up to 100 feet in height, it would involve less view blockage due to larger building setbacks from the site property lines.

The preliminary site plan was discussed for the purpose of comparing view blockage effects of the proposed project Conceptual Site Plan with alternative site designs in order to illustrate the range of potential effects of industrial development on views. The preliminary site plan was not and is not a project submitted for City review and approval.

Site plans for development by future tenants of the site will require City Site Plan and Design Review. Future tenant projects will be subject to further CEQA review to determine whether the project's environmental effects were adequately considered in the Mariposa Industrial Park EIR. The CEQA evaluation of these future projects will need to compare each project's potential environmental impacts with the certified EIR for the Mariposa Industrial Park and determine whether or not additional environmental analysis and/or mitigation measures are required. This will be true of any future project's aesthetic and view blockage effects; if these effects are not consistent with the analysis presented in the DEIR, additional aesthetic analysis may be required. If the future project would involve new significant aesthetic effects, additional mitigation measures and subsequent CEQA documentation may be required as provided in CEQA Guidelines Sections 15162-15164.

Response 3O: The commenter, together with other agencies, state that CEQA obligates the City to identify "all feasible" mitigation measures in the EIR if the project would result in significant and unavoidable impacts. This requirement does not exist in either the Public Resources Code or CEQA Guidelines sections cited. The referenced section of PRC 21002 states:

> Public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects.

The concept of incorporating "all feasible mitigation measures" is an implied requirement of CEQA findings requirements in PRC 21002 and in Guidelines Sections 15091 through 15093. In these texts, the City is permitted to find that

> Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

CEQA requirements for mitigation measures needing to be included in an EIR are described at CEQA Guidelines 15126.4. Feasible mitigation measures must be discussed, but the concept of "all feasible mitigation measures" is not discussed. Section 15126.4 does require that mitigation measures be fully enforceable, that mitigation is not required for effects found not to be significant and that an essential nexus and rough proportionality must exist between the impact and the mitigation measure.

The commenter appears to have determined on its own that the range of Air Quality Improvement Measures included in Appendix B of the DEIR (FEIR Appendix C) do not qualify as measures that would reduce air quality impacts, and to question the effectiveness of these measures in Comment 3P. This comment inaccurately portrays the City's effort at air quality analysis and mitigation as minimal and uninformed and fails to acknowledge the City's effort to consider the application of these measures and other similar measures to the Mariposa Industrial project as well as prior industrial projects approved by the City of Stockton. As discussed in DEIR Chapter 6.0 Air Quality, with regard to construction emissions on pages 6-13 and 6-14, and with regard to operational emissions on pages 6-14 and 6-16, the DEIR embraces the validity of these measures by integrating them into the air quality impact analysis. The measures themselves are listed in the appendix. As will be discussed further below, the Additional Air

Quality Measures adopted by the City have much in common with similar measures recommended by CARB, the SJVAPCD and the Department of Justice.

Response 3P,3Q: As would be true with any condition of approval attached to a multi-phased project, subsequent applications for development of all or portions of the project site would first be submitted to the City for processing and analyzed for CEQA purposes – that is, whether or not the project is adequately addressed by the Mariposa Industrial Park FEIR. If not, additional CEQA analysis and documentation would be required. The project application would then undergo detailed review by City staff in several departments. This review would include comparison of the project to each of the adopted conditions of approval and determining whether the project is consistent with the conditions or whether further project modifications or mitigation measures would be needed. In this process, the project would be reviewed as to its implementation of the Additional Air Quality Improvement Measures. If implementation is not considered satisfactory, the project would need to be further modified. Compliance would be assured in project-specific conditions attached to the project. Non-compliance with these conditions would jeopardize the validity of the project's Certificate of Occupancy.

For its unknown purposes, the commenter isolates compliance with existing SJVAPCD rules as unimportant elements of the Air Quality Improvement Measures. The DEIR recognizes that these existing requirements apply to the project and that implementation can be expected under normal circumstances, but their inclusion in the air quality measures reinforces that these existing rules must apply to the project.

The City acknowledges that some of the Air Quality Improvement Measures may be vague and challenging to enforce. However, this is due to state of understanding of the nature of the tenants that may be recruited to occupy the project site after it is annexed to the City, the potential applicability of the measures to these future projects and how they could be enforced. The DEIR recognizes that the measures would apply differently to the range of potential tenants and, so, leave the measures open to interpretation by professional planning staff as they conduct their project-specific review of subsequent projects. In preparation of this Final EIR, the City has made an additional effort to better define the Additional Air Quality Improvement Measures, quantify their potential effectiveness and improve the means by which they could be acceptably enforced. The product of this analysis is shown in FEIR Appendix C.

On page 6-16, the DEIR analysis finds that "it is not certain that application of SJVAPCD rules and Additional Air Quality Improvement Measures, which are considered feasible (emphasis added), would reduce NOx emissions below the SJVAPCD significance threshold." As a result, the project's air quality impacts were regarded as significant and unavoidable. This is not because there are additional air quality improvement measures exist that are not identified in the EIR but rather that none of the Air Quality Improvement Measures are quantitatively defined as to their effectiveness in reducing the overall NOx emissions of the project.

The comments from California Department of Justice, CARB and the San Joaquin Valley Air Pollution Control District detail each agency's recommendations for additional air quality mitigation measures that should be applied to the project; these measures are assumed by the City to represent the commenting agencies' understanding of "all feasible mitigation measures" for the Mariposa Industrial project. However, like the Additional Air Quality Improvement Measures included in the Sanchez-Hoggan EIR, none of the feasible mitigation measures recommended by the agencies include the means to quantify their effectiveness in reducing NOx emissions or in avoiding the significant and unavoidable air quality effect of the project. The City has nonetheless accepted these recommendations into its updated list of Air Quality Improvement Measures shown in FEIR Appendix C.

These same entities submitted similar comments on the 2020 Stockton DEIR for the Sanchez-Hoggan Annexation. As explained in Appendix B of the Mariposa Industrial DEIR, these agency recommendations were incorporated into the Sanchez-Hoggan Final EIR as a set of Additional Air Quality Improvement Measures that were included in the certified FEIR and attached to that prior project as project Conditions of Approval.

The commenting agencies' recommended mitigation measures for the Mariposa Industrial project have much in common with the measures listed in DEIR Appendix B, addressing topics such as measures that would reduce emissions from trucks accessing the project site and the operation on-site equipment, and requiring conformance with adopted air quality regulations. After detailed analysis, the City believes that the measures described in each of the sources do address a common set of air quality issues and concerns, described somewhat differently from letter to letter. In preparing this Final EIR, the City has made an effort to compare all of the related recommendations and to distill from those sources the City's own discrete set of air quality measures that can be incorporated into the Mariposa Industrial project as conditions of approval.

The City's list of air quality measures addressing each of the air quality mitigation subjects and representing its interpretation of the best recommendations provided by each of the commenting agencies is shown in Appendix C of this Final EIR. The more confusing elements of DEIR Appendix B have been modified or eliminated for clarity. For the purposes of the proposed project and consideration and certification of this EIR, these measures together with those described in the DEIR, are considered all feasible mitigation measures for the proposed project.

Montezuma Fire District
In San Joaquin County
Station 18-1, 2405 S. "B" St., Stockton, CA 95206
Station 18-2, Stockton Metro Airport

Administration
Business Phone:
(209) 464-5234
Fax (209) 466-2624

Edward Martel
Fire Chief
& Clerk to the Board

Jan 7th 2022

To: City of Stockton, Community Development Department
345 N. El Dorado Street
Stockton, Ca. 95202

From: Edward O. Martel – Fire Chief

Re: **The City of Stockton , Mariposa Industrial Park EIR Project P20-0805**

The Montezuma Fire Protection District is in receipt of your application referral for project Mariposa Industrial Park EIR project P20-0805.

The Fire District would like to submit information regarding current services and future impacts that may result from the above stated application referral, which are:

1.) Current Fire Protection Service.
2.) Current Fire Prevention Service.
3.) Future impact to the district.
4.) Requests and requirements

1.) Current Fire Protection Service:
The Montezuma Fire District currently serves the project site listed above (since 1958). The Fire District is currently providing fire suppression, rescue, fire training, aircraft fire fighting, hazardous material response and emergency medical service to all areas with in the fire district to include the above listed area.
The Montezuma Fire District currently serves 9.6 square miles area and staffs two (2) fire stations at all times. The Fire District also has an Automatic Aid agreement with the French Camp Fire District to responds to all structure fires automatically.
The nearest fire station is Station # 181 located @ 2405 South "B" street. Response time to the project area by district personnel is less than four (4) minutes.

2.) Current Fire Prevention Service:
The Montezuma Fire District also provides Fire Prevention service to the area mentioned above by conducting annual safety inspections and or fire operational permits required by the California Fire Code (CFC). The Fire District contracts all its fire plan check reviews with San Joaquin County Community Development, Bureau of Fire Prevention.

4A

COMMENT NO. 4
MONTEZUMA FIRE DISTRICT

3.) Impact to the district:

Loss of future growth will occur along with the loss of future revenue. The following revenues would not be gained upon annexation;

1.) Property Tax
2.) Montezuma Fire District Tax Override Assessment.
3.) Future Fire Prevention Bureau permit fees.

4B

5.) Request and Requirements:

After careful review Montezuma Fire Protection District would like to submit the following comments for consideration in the preparation of the environmental document:

1.) Response times – The environmental document should address fire response times to the proposed site. In previous environmental documents it was determined that the location of the City of Stockton's fire station that service this location is located at such a distance that it resulted in excessive response times. As a mitigation measure, a temporary contract with the Montezuma Fire Protection District was made as a condition to mitigate the response time from the City of Stockton. This issue should be addressed in the environmental document.

4C

2.) Fire suppression systems – In order to mitigate the excessive response times, other environmental documents required a more advanced fire suppression system. This matter should be discussed and considered in the environmental document.

4D

3.) LAFCo's policies and procedures – The environmental documents should address LAFCo's policies and procedures particularly as related to the fire mitigation measures adopted by the commission. The document should address the loss of revenue and the impact that this loss of revenue may have on the provision of service to other areas in the Fire District as related to the detachment of the Fire District upon annexation.

4E

Conclusion:

In closing, once again the Fire District is very concern with the impact that may result from the proposed project site. If you have any questions, please feel free to contact me @ (209) 607-3939 or (209) 464-5234.

Thank you,

Edward O. Martel – Fire Chief

C; All MFD Board of Directors
All SJC Honorable Board of Supervisors
SJC County Administrator – Mr. Wilverding
LAFCo Executive Director – Glaser
SJC Community Development Department – Mr. Kwong

COMMENT NO. 4
MONTEZUMA FIRE DISTRICT

Response to Comment #4, Montezuma Fire District

Response 4A: This comment describes the fire protection and fire prevention services currently provided by the Montezuma Fire District. Some of this information repeats information in the DEIR, and other portions provide additional. The comment adds information to the EIR but does not comment on the adequacy of the DEIR. No further response to this comment is required.

Response 4B: This comment describes the potential financial impacts of the proposed annexation on the Fire District. The City describes the financial impacts of the annexation, including impacts on the Montezuma Fire District, in a City Services Plan prepared separately from the CEQA analysis. The comment adds information to the EIR but does not comment on the adequacy of the DEIR. No further response to this comment is required.

Response 4C: The commenter states that the DEIR should discuss response times to call for fire service. The DEIR included information on response times to the project site in the Environmental Setting section of Chapter 15.0 Public Services. As noted in the DEIR, response times by themselves are not considered an environmental impact requiring analysis and mitigation under CEQA. However, as LAFCo has expressed concerns about Fire Department response times and as LAFCo is a Responsible Agency under CEQA, the response time issue was discussed in the DEIR.

The DEIR stated (page 15-1) that the response time from Station 12 to the project site is an estimated 10-12 minutes. In a recent revision to the City Services Plan for the project, the Stockton Fire Department stated that "Response times to the industrial area within which the subject site is located are currently longer (than 3-4 minutes) – approximately 7-8 minutes, noting that this response time is within the industry standard for Rural/Semi-Urban responses.

Impact PSR-1 of the DEIR includes a discussion of anticipated response times to calls from the project site, including how response times would exceed the City General Plan target and how the City would address this issue. To address long-term fire protection needs and eventual urbanization of the project area, the City of Stockton is currently working to establish a Community Facilities District (CFD) to fund the construction of a new Stockton Fire Station in the Mariposa Road corridor. This new station will be staffed with 3 personnel from the ongoing CFD assessment. These efforts will allow the Fire Department to meet increasing service demands while reducing response times in the future.

Response 4D: The commenter states that the DEIR should discuss fire suppression systems to mitigate for response times. Impact PSR-1 of the DEIR includes a discussion of Early Suppression Fast Response (ESFR) fire sprinkler systems, which are used by most of the new concrete tilt-up warehousing being developed in this area of the city. The Stockton Fire Department states that the ESFR system is recommended to reduce risk associated with delayed response times, and project applicant has indicated that ESFR systems will be incorporated into project buildings.

Response 4E: The commenter states that the DEIR should discuss LAFCo policies and procedures as they relate to fire protection services. DEIR Chapter 13.0, Land Use, provides a description of LAFCo policies and procedures related to annexation. DEIR Chapter 15.0, Public Services, describes the concerns of LAFCo related to fire protection services, mainly involving response times, and how the City would address these concerns.

January 7, 2022

City of Stockton
Community Development Department
c/o: Director Will Crew
345 N. El Dorado Street
Stockton, CA 95202
William.Crew@stocktonca.gov

Subject: SCH Number No. 2020120283 – Draft Environmental Impact Report
Mariposa Industrial Park Project

Dear Director Crew

Thank you for the opportunity for the San Joaquin County Community Development Department (CDD) and San Joaquin County Public Works Department (PW) to comment on the Draft Environmental Impact Report (DEIR).

The CDD and PW appreciates the opportunity to submit these comments prior to the planning commission's public hearing. As I indicated in our phone call of December 15, 2021, we did not receive a copy of the DEIR, therefore we submit these comments at this time. These comments are for the staff and the City Planning Commission's for review and consideration. 5A

Our comments and concerns focus mainly on environmental and quality of life issues created by the project that we expect will impact the immediately adjacent unincorporated residential communities along both Marfargoa Road and Clark Drive. The DEIR project description states that the project will not be connecting nor using Marfargoa Road and Clark Drive as public through streets except as emergency vehicle access. The DEIR project description does clarify some of the concerns in our NOP letter, however, we have the following questions and concerns.

Air Quality

The Marfargoa Community and its residences are immediately adjacent to the western property line of the project site. Due to that close proximity, and lack of detail in the documents provided, we have the following questions/comments: 5B

1. What is the distance from the actual trucking operations to the closest residential property line and use? Based upon the conceptual site plan it appears that truck parking and idling may be situated on the other side of the proposed masonry wall.
2. Will there be a buffer for truck moving noise, idling noise, truck vibrations and, diesel emissions? The air quality conclusions as depicted in Table 6-4 indicates that only NOx

COMMENT NO. 1
STATE CLEARINGHOUSE

emissions are significant and unavoidable. Specifically PM10 is a concern as it relates to the emissions point of these truck operations and their close proximity to these residential uses. The analysis concludes that PM10 thresholds are not exceeded including operational PM10 standard.

3. Accordingly, was the air quality modelling for PM10 measured from the location of truck staging, idling, and parking locations to the residential uses? Please describe the method used for the modelling employed. The issue is that the closer the truck emission source points are to the residential uses, the higher the concentration of PM10.

5B

Noise and Vibration

Similar situational concerns are pertinent to the noise analysis, vibration, and light glare. Here our questions/comments are:

1. How close are the trucks situated in proximity to the residential uses after considering operational factors of idling, staging, and movement as it relates to noise and vibration from truck operations? The DEIR describes, the "*Loading docks are generally a distance of 100-feet from the nearest residences or residentially zoned property. The resulting noise levels would be 54 dB Leq and 74 dB Lmax. The noise levels would comply with the daytime noise level standards of 55 dB Leq Mariposa Industrial Park EIR 14-11 August 2021 and 75 dB Lmax (see Table 14-3 above). However, the noise levels would not comply with the nighttime noise level standards of 45 dB Leq and 65 dB Lmax. Therefore, impacts are considered potentially significant. The noise study recommends sound walls 10 feet in height be placed at specific locations along the project site boundary where residences are close to potential activity areas. Figure 14-3 shows the recommended locations based on the conceptual plan for site development. This figure is from Figure 3 of the project noise study. Installation of sound walls would reduce the noise impacts on residences of project operations of the type and location shown on the conceptual plan to a level that would be less than significant.*"

5C

2. Does the noise modelling include an analysis of projected noise emission points from approximately 200 truck parking spaces located on the western perimeter of the site? Neither Chapter 14.0 or Appendix F identified these truck parking spaces as noise emission points.

5D

3. Are these spaces use for truck parking, idling, and/or staging with refrigeration units active? If yes, then the noise analysis modelling should include these truck parking spaces as an operational area and particularly, because it is closer in distance to the Marfargoa residential community.

5E

Light and Glare

On light and glare:

1. What analysis or plans has been conducted to address the siting of the lights either on the face of the proposed buildings (potentially 100 feet in height) or the siting and proximity of the truck parking lot and perimeter lights to avoid light and glare to the residential uses?

5F

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STATE CLEARINGHOUSE

In summary, these questions and concerns are appropriately described as proximity questions and concerns related to the immediately adjacent Marfargoa residential community based upon the conceptual site plan and tentative map.

Environmental Justice

The Marfargoa Community will remain a part of the County's unincorporated community should this project be approved, annexed, and constructed. The Marfargoa community is designated as a Disadvantaged Community in the City's General Plan and the LAFCO's Municipal Service Review (MSR) as a disadvantaged Unincorporated Community (DUC). It is also known in the MSR in a larger geographic context as the Mariposa Road DUC (page 13-9).

Within the unincorporated area of the County, the main concentration of the residential community is centered geographically along Marfargoa Road which is immediately west of the project site. Understanding that this road will not connect into the Marfargoa community address some of the county's concerns and questions. Chapter 20, page 20-4 refers to the California Department of Justice's recommended measures and best practices to address construction and operational air quality and greenhouse emissions of a similar project. The DEIR refers to the requirement to implement these recommended measures referred to as Appendix B into this project. 5G

With this as context, please provide the following:

1. Considerations of situating the truck parking on the conceptual site plan on the western perimeter of the property as it relates to using Appendix B as a condition of approval and the conclusions of how it would or would not meet Appendix B objectives in addressing environmental justice concerns. The proposed tentative map and the depicted access easements across the parcels shown in the tentative map reinforces the notion that the conceptual site plan is more than likely to be the actual site plan which reinforces the county's concern regarding the Marfargoa community.

Development Agreement

Please provide a copy of the draft development agreement for County staff to review so that we can assess whether there are any requirements such as land buffer areas or other types of conditions that would help address the County's concerns and questions related to CEQA determinations, impact analysis, and conclusions. 5H

Transportation

1. On Figure 3-4, neither section shown would be acceptable for widening in the County's jurisdiction. This area's drainage is served by roadside ditches, and the section as proposed shows an approximate half section of 41' (16' existing + 25' proposed) from the road centerline to the new edge of pavement. This section of Mariposa Road only has an 80' right-of-way width, which prevents the relocation of drainage or utility poles within the right-of-way. Furthermore, allowing this widening to the south side will create sight distance issues for the residents exiting their driveways. The improvement plans need to be revised to address these issues prior to issuance of an encroachment permit. 5I

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2. As noted above the project proposes to use Marfargoa Road and Clark Drive for emergency vehicle access only. The DEIR fails to identify measures that will be taken to ensure that non-emergency, cut-through traffic will be restricted from these roadways. Measures to restrict cut-through vehicular and truck traffic must be identified and agreed upon between the City and County prior to issuance of encroachment permits for driveways at these locations. 5J

3. The regulatory framework section beginning on Page 16-9 fails to include San Joaquin County. The DEIR should acknowledge review and consideration of San Joaquin County planning documents such as the County's General Plan and 2020 Countywide Bicycle Master Plan as it relates to surrounding unincorporated areas that are affected by the project. 5K

4. The County has multiple affected roads and intersections identified in the DEIR. In some instances, the DEIR fails to accurately acknowledge the proper jurisdiction and whether the appropriate standards are being applied for analysis of impact. The Traffic Analysis section should be updated to include clarification on County policies and impacts, and submitted to San Joaquin County for review prior to the final EIR. 5L

5. The Traffic Analysis is also unclear as to whether appropriate standards are applied for other non-City jurisdiction signalized intersections. The DEIR should clarify whether Caltrans standards have been considered. 5M

Thank you for the opportunity to comment. Please forward any responses to me at dkwong@sjgov.org and at 1810 E. Hazelton Avenue, Stockton, California, 95205. I also request a copy of the final environmental impact report and responses to our questions and comments. Please also provide me a copy of the public hearing notice of the planning commission meeting for this project.

Respectfully submitted,

David W. Kwong, AICP
Director of Community Development
San Joaquin County

C: Eric Merlo, Assistant Director
Jennifer Jolley, Deputy Director of Planning
Zoey Merrill, County Counsel
Kris Balaji, Director of Public Works
Fritz Buchman, Deputy Director of Development
Najee Zarif, Deputy Director of Engineering
Alex Chetley, Engineering Services Manager
Michael Shami, Senior Transportation Engineer
Jeff Levers, Associate Engineer/Transportation Planner
Marissa Loera, Assistant Planner
Michael McDowell, Deputy Director of Planning and Engineering
James Glaser, LAFCO Executive Officer
Ed Martel, Fire Chief of Montezuma Fire Protection District

COMMENT NO. 1
STATE CLEARINGHOUSE

Response to Comment #5, San Joaquin County Community Development Department

Response 5A: The City appreciates the County's effort to provide comment on the Draft EIR (DEIR) for the Mariposa Industrial Park project. The DEIR was made available for public review from August 24 to October 7, 2021. A Notice of Availability was published with the County Clerk; the NOA was mailed to the San Joaquin County Community Development Department. The NOA specified the availability of the DEIR and a web address where the document could be downloaded. No hard copies of the DEIR were distributed. The DEIR was also uploaded to the State Clearinghouse CEQAnet web site.

Response 5B: The DEIR was clear in noting the location of the project and the adjacent unincorporated community. The EIR contained detailed air quality analysis, including a Health Risk Assessment that considered the potential health impacts of air toxic emissions on nearby residences. The HRA, Appendix I of the DEIR, includes data and mapping that show the maximum potential health risks in adjoining residential areas would be below State significance thresholds. This information was reported in the EIR.

The HRA analyzed potential health risks generated by the project as configured in the conceptual project layout EIR (Figure 3-2); in this drawing, truck parking and operating areas are set back approximately 20 feet from the west project boundary, and the nearest residence is approximately 60 feet west of the boundary. The HRA considered the health effects of truck maneuvering and parking in these areas with the results noted above. As discussed in the HRA, project truck activity would involve diesel emissions, but these emissions will involve a less than significant health risk to nearby residences.

The noise effects of on-site project truck movements, idling and vibrations on nearby residences were considered in detail in a noise technical study, Appendix F of the DEIR. Potential noise effects on nearby residences were considered potentially significant; DEIR Mitigation Measure NOISE-1 requires construction of 10-foot sound walls along the west boundary of the site; this mitigation measure would reduce noise impacts on adjacent land uses to a less than significant level.

The County's concern regarding the proximity of PM10 to nearby residences is mis-directed. PM10 is a regional criteria pollutant; as acknowledged in the DEIR, the project would contribute to PM10 levels in the Stockton area but not at significant levels. This is discussed in depth in DEIR Chapter 5.0 Air Quality. As also discussed

in DEIR Chapter 5.0, diesel particulate matter is the air pollutant of concern with regard to health risks to nearby residences; potential health risks of these emissions were analyzed in the HRA and found to the less than significant, even for residences immediately adjacent to the project site. The methodology for the analysis of potential diesel particulate emissions is described in the HRA, Appendix I of the DEIR.

Response 5C: The analysis of the project's noise effects on nearby residences, including noise and vibration generated in truck maneuvering and parking areas near the west project boundary, was presented in Chapter 14.0 Noise and the noise technical study in DEIR Appendix F. As noted in Response 5B, potential noise effects on nearby residences were described as potentially significant in the DEIR. Mitigation Measure NOISE-1, which requires construction of 10-foot sound walls along the west boundary of the site, would reduce noise impacts to a less than significant level.

Response 5D: Potential noise associated with moving and parking trucks was addressed in the DEIR noise analysis. Truck parking was not identified as a separate noise source, because once parked, trucks and trailers would not be potential noise sources. As discussed in Response 5E, the project would not involve cold storage or refrigerated trucks.

Response 5E: As also noted in Response 1F, the project applicant stated during the preparation of the DEIR that the proposed project is not intended to accommodate cold storage uses, and this fact was reflected in the content of the DEIR. Cold storage is not described as a proposed use in DEIR Chapter 3.0 Project Description except to note that cold storage is one of several potential uses of "high-cube" warehousing (DEIR, page 3-5).

Cold storage was specifically excluded from the project air quality modeling reported in DEIR Chapter 6.0 Air Quality and the noise impact analysis in DEIR Chapter 14.0 Noise. If any future tenants propose to establish a cold storage facility, a subsequent evaluation of air quality and noise impacts will be required. See Response 1F for additional detail.

Response 5F: The DEIR included analysis of potential visual and aesthetic of proposed industrial buildings, including buildings up to 100 feet in height. Chapter 4.0 of the DEIR also considered potential light and glare effects finding that required compliance with Stockton Municipal Code Sections 16.36.060(B) and 16.32.070 would minimize light and glare impacts.

Response 5G: This comment provides the County's observations regarding the adjacent Disadvantaged Unincorporated Community (DUC), which will remain under County jurisdiction if the project is approved. The DEIR also addresses the DUC and related environmental issues in several location. Potential air and noise concerns associated with the proximity of truck activity has been addressed in prior responses to this commenter.

The County states that the conceptual site plan might actually be the developed plan, which agrees entirely with the project as described in the DEIR. This was the intent of displaying the conceptual site plan map in the EIR: to provide an illustration of potential development of the site. All of the potential environmental effects of the project were analyzed based on the development configuration shown in DEIR Figure 3-2. It is unclear what if any additional information needs to be provided in response to this comment.

Response 5H: As of this date, the Development Agreement (DA) is under discussion and negotiation between the City and applicant. At such time as the DA is considered stabilized, the City may share a copy of the DA with the County at its discretion. The subject matter of the DA does not deal with environmental matters as described by the County with the exception of potential financing for fire services and facilities improvements.

Response 5I: The County's comments are noted and understood. The intention of including Figure 3-4 in the DEIR was portray one possible scenario for access via Mariposa Road with the understanding that the actual improvement design would need to address right-of-way, sight distance and other site-specific. Improvement design will be coordinated with the City and County and will be subject to the review and approval of the City, and the County in conjunction with an application for encroachment permit.

Response 5J: The subject access points will have barriers or gates to prevent non-emergency traffic. These points of access would be used by emergency response agencies only when needed. The applicant will provide KnoxBoxes or similar non-destructive emergency access devices at each access point.

Response 5K: The following paragraph is added to the Regulatory Framework section of Chapter 16.0 Transportation to address the County's concern:

County of San Joaquin

The County of San Joaquin currently has land use and planning authority over the project site and other nearby unincorporated lands. This authority would be limited to off-site unincorporated areas when the project site is annexed to the City.

San Joaquin County owns and maintains elements of the regional transportation network serving the incorporated cities, including bikeways. County road facilities in the project vicinity include Mariposa Road, Austin Road. Planned improvements to these facilities will require County review and approval through the issuance of an Encroachment Permit as well as consistency with the Countywide Bicycle Master Plan.

County objectives, policies and standards related to transportation are detailed in the San Joaquin County General Plan, in particular the Circulation Element. These plans, however, recognize a distinction between unincorporated areas within and outside city spheres of influence. The County's General Plan Policy TM-3.1 establishes the County's transportation planning standards but notes that "Within a city's sphere of influence, LOS D, or the city planned standards for that level of service" will be maintained.

Response 5L: The transportation analysis included in the DEIR was based on City traffic standards, consistent with County policy and practice. As noted in Response 5K, the City standards are the appropriate standard of review within the City's Sphere of Influence. The County does not identify any specific inconsistencies with its standards.

Response 5M: Caltrans standards were addressed in the traffic study as appropriate. An explanation of these standards is provided on pages, 21, 25 and 26 of the traffic study.

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DELTA-SIERRA GROUP
MOTHER LODE CHAPTER

Delta-Sierra Group
Mother Lode Chapter
P.O. Box 9258
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Nicole Moore
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Stockton CA 95202
via email: Nicole.Moore@stocktonca.gov

1.17.2022

Re: Mariposa Industrial Project Draft Environmental Impact Report

The Delta-Sierra Group requested to be placed on the City of Stockton CEQA notification list in correspondence dated 10.27.2020 for the South Stockton Commerce Center Project. The Delta-Sierra Group was never informed as outlined in the latest California Environmental Quality Act (CEQA) Guidance[1]. The Delta-Sierra Group has volunteered to assist the City of Stockton with new CEQA guidelines compliance in our correspondence to the City of Stockton dated 12.31.2021. 6A

The Delta-Sierra Group was unaware of this project until 12.28.2021 when researching another matter. The DEIR State comment period began on 8.24.2021 and ended on 10.7.2021 according to a submittal to a document posted to CEQAnet. On 9.9.2021, the State of California Governor's Office of Planning and Research State Clearinghouse and Planning Unit distributed to State Agencies notice that the City of Stockton submitted to CEQAnet, the appendices that were not included in the 8.24.2021 submittal. 6B

We hope that our DEIR comments will be included and considered when developing a revised DEIR or a Final Environmental Impact Report (FEIR).

PROPOSED PROJECT

The City of Stockton Base-Camp DEIR dated 8.24.2021 described the project as follows:

> Conceptual plans for site development involve seven "high-cube" warehouses with a total floor area of 3,616,870 square feet, along with parking stalls, associated utility infrastructure, and vehicular access from Mariposa Road. The project would require discretionary approvals from the City of Stockton consisting of pre-zoning, tentative subdivision map, development agreement, site plan review and design review, along with authorization to apply to the San Joaquin Local Agency Formation Commission (LAFCo) for annexation to the City. LAFCo will be responsible for consideration and approval of the annexation. 6C

The DEIR does not include a full disclosure of impacts for this speculative and discretionary project. A final and definitive site plan is not currently proposed. Planned mitigation and environmental impact analysis is based on a conceptual site plan which underestimates impacts and fails to address cumulative impacts resulting from the operation of the project. CEQA provides a seat at the table for the public and approving conceptual projects negates the

[1] http://files.resources.ca.gov/ceqa/docs/2018_CEQA_FINAL_TEXT_122818.pdf

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opportunity of the public to weigh in on proposed mitigation measures for environmental impacts which negatively affect the quality of life and health of Stockton residents. The conversion of productive agricultural land contiguous with other agricultural lands has significant impacts that will create development pressures through out the life of the proposed conceptual project. 6C

The DEIR included references to a potential Development Agreement (DA) between the City and project applicants. This agreement is still under discussion and negotiation between parties which does not include the public. No disclosure of possible negotiated agreements that would benefit both parties were included except for allowing exceedance of the height limit for the IL Zoning District of 60 feet of building heights of up to 100 feet and providing the project the opportunity to accommodate a wider range of possible industrial tenants. Neither aesthetic mitigation of these extra tall structures nor the additional truck trips associated with increased warehousing capacities, were adequately analyzed in the DEIR. 6D

While this undisclosed DA would require review and approval by the City Council no specific CEQA notifications and review periods are required. This is one more example of how these speculative development projects with acknowledged significant environmental impacts to the residents of Stockton can shut out the residents from the CEQA negotiation table.

SETTING

The project applicant, Greenlaw Development, LLC located at 18302 Von Carmen Ave. Suite 250, Irvine CA 95212[2] proposes the annexation and industrial development of nine parcels, 6E

[2] https://files.ceqanet.opr.ca.gov/266554-6/attachment/INYt4ST1OKUfGFownO_MUCYJmM2SRSrE7hBoxk5-hAINHkX0dhtgdic_cbj1KUdbUfRaHYiIfNqsaPMT0

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located South of Mariposa Road and east of Clark Drive and Marfargoa Road (both rural residential roadways), into the City of Stockton. In conjunction with annexation, the site would be prezoned to IL zoning, a designation with industrial development of up to 60 percent of the site area, and where building heights reaching 60 feet would be permitted by right. The conceptual site plan for the project proposes the construction of seven buildings totaling approximately 3.6 million square feet in floor area, with circulation roadways, parking, vehicular access to Mariposa Road, utility service and storm drainage detention. Runoff collected in the detention basin would be metered into North Little Johns Creek when capacity is available in the creek. What will be done with excess onsite flows when North Little Johns Creek is at flood flows was not disclosed. 6E

The project proposes annexation and industrial development of nine adjacent parcels totaling 203.48 acres. The site is currently in an unincorporated area of San Joaquin County.

DEIR IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

Air Quality

The conceptual site plan for the project site proposes the construction of seven buildings with a maximum height of 36 feet and floor area totaling 3,616,870 square feet of mostly warehouse space with some associated office space. The conceptual site plan estimates a total of 2,938 parking stalls located throughout the project site: 1,831 stalls would be for automobiles and 1,107 stalls would be for trucks and trailers. Once in operation, the project is expected to generate 12,370 daily vehicle trips according to the transportation analyses included in the DEIR. The DEIR did not specify the number of daily truck trips that would serve the project. The DEIR proposed restriping the Mariposa Road frontage to accommodate turn pockets and acceleration/deceleration lanes without additional roadway construction mitigation proposed. 6F

The size and density of this warehousing speculative project indicates that there will be significant air quality impacts that will be generated with the operations of the project site. According to comment letters submitted by the California Air Resources Board[3] and the Attorney General's Office of the Department of Justice[4] these impacts have not been adequately assessed or mitigated. Review of the DEIR mitigation measures proposed indicates that the concerns of these state agencies are valid, and we concur with issues described by those state agencies that additional mitigation measures and environmental analyses of the impacts are warranted as described therein. 6G

The DEIR included statements to suggest that the project environmental analysis relied on the non-project specific City of Stockton's 2019 2040 General Plan EIR (GPEIR) which considered the anticipated growth and build-out of the City of Stockton as a whole. The GPEIR included the project area as designated to accommodate potential development of industrial uses through 2040. The City of Stockton adopted a Statement of Overriding Considerations for potential unmitigated impacts that were deemed significant and unavoidable relating to agricultural land conversion, air quality, greenhouse gas emissions, traffic noise, employment growth, and traffic when updating the Stockton 2040 General Plan, a non-project specific document. 6H

[3] https://ww2.arb.ca.gov/sites/default/files/classic/toxics/ttdceqalist/mariposaindustrialpark_deir.pdf?_ga=2.25605236.875867676.1642354098-973501418.1624640617

[4] https://oag.ca.gov/system/files/media/Mariposa%20Industrial%20Park%20AGO%20CEQA%20Comment%20Letter.pdf

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The reliance of the DEIR on the non-project environmental analysis ignores the scope and intensity of this warehousing distribution project on the environmental quality of our community and recommended and reasonable mitigation measures. 6H

The DEIR included the following statement:

> As documented herein, with implementation of the proposed mitigation measures, nearly all the other potential environmental effects of the project would be reduced to a level that is less than significant. The project would involve any new significant and unavoidable environmental impacts, that is, impacts not adequately addressed in the certified GPEIR. While project avoidance and minimization measures would be implemented for the identified significant and unavoidable impacts, it is unknown if these measures would reduce the project's impacts to a level that would be less than significant. 6I

Mitigations proposed in the DEIR should not be static, but requirements adjusted as conditions change related to future climate, groundwater, flooding, transportation, or air quality conditions that will warrant additional mitigation during project development of this speculative project.

An example of the inadequacies of the proposed mitigation included within the DEIR include the following:

> Impact AIR-2: Air Quality Plans and Standards – Operational Emissions. Project operational emissions would not exceed SJVAPCD significance thresholds, except for NOx. Compliance with SJVAPCD Rule 9510 and Additional Air Quality Improvement Measures (Appendix B) would reduce NOx emission impacts. However, it cannot be determined if reduction through these measures would make project impacts less than significant. [This issue was analyzed in the Stockton General Plan 2040 EIR and was determined to be significant and unavoidable even with mitigating General Plan policies and EIR measures.]

The Delta-Sierra Group provided the City of Stockton in an email to the City of Stockton Project Planner on 3.19.2021, a link for the Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act[5]. This guidance document was shared so that future warehousing projects under review by City of Stockton as CEQA lead would include mitigation measures to protect Stockton residents from significant and avoidable environmental impacts. 6J

Onsite measures such as requiring on-site equipment, such as forklifts and yard trucks, to be electric, requiring all heavy-duty vehicles entering or operated on the project site to be zero emission beginning in 2030, constructing electric truck charging stations and electric plugs for electric transport refrigeration units are reasonable and on-site mitigation requirements that should have been proposed in the DEIR. Along with vegetative barriers maintained by the project to reduce exposure of nearby residents to air pollutants associated with site operations and to provide shade reducing the heat island effect associated with paved surfaces. Without these onsite measures, the project will add to the residents of Stockton already high pollutant burden.

The City of Stockton must release the mitigation monitoring and reporting results to the public throughout the development process. This includes putting the mitigation monitoring and 6K

[5] https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/warehouse-best-practices.pdf

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reporting on the City of Stockton Data Dashboard[6] to provide an open and transparent means of accountability to the residents of Stockton that required mitigation is being implemented. 6K

Air quality impacts are not adequately characterized to disclose potential effects or to prevent or minimize significant, avoidable damage to the environment and health of Stockton residents. 6L

Cultural and Tribal Resources

The DEIR acknowledged that the project site is considered within North Valley Yokuts territory and that the Northern Valley Yokuts occupied the land including the project site and vicinity as recent as during the Spanish colonial period.

A mitigation proposed that "The archaeologist, in consultation with the tribal representative if contacted, shall recommend mitigation measures needed to reduce potential cultural resource effects to a level that is less than significant in a written report to the City, with a copy to the tribal representative. The City shall be responsible for implementing the report recommendations. Avoidance is the preferred means of disposition of tribal cultural resources. The contractor shall be responsible for retaining qualified professionals, implementing recommended mitigation measures, and documenting mitigation efforts in written reports to the City."

Tribal representation contact should not be optional. As the DEIR statements above indicate, the City shall be responsible for implementing the report requirements and should not do so unless Tribal input is meaningfully sought.

A developer paid Tribal representative should be present during any surveys or land disturbance. The DEIR stated that "Solano Archaeological Services attempted to contact eight representatives of four local tribes: North Valley Yokuts, Confederated Villages of Lisjan, Muwekma Ohlone, and Tule River. And to date, no tribes have responded to these inquiries." 6M

Elsewhere, the DEIR stated that the City of Stockton made inquiries and documentation of the attempts for consultation were included in Appendix E. No further documentation of attempts for consultation were identified in Appendix E other than the following in response to a request for consultation by the Northern Yokuts Tribal representative:

From: **Nicole Moore** Nicole.Moore@stocktonca.gov
Subject: RE: Mariposa Industrial Park EIR
Date: December 11, 2020 at 7:49 AM
To: Katherine Perez canutes@verizon.net
Cc: Charlie Simpson csimpson@basecampenv.com

NM

Thank you for your time and comments, Dr. Perez. I have included our CEQA consultant in this response as acknowledgement of your comments.

We will be in touch with you directly as this EIR progresses.

Have a wonderful weekend and holiday season.
Nicole

.

Additional mitigation and outreach efforts are needed to ensure that Tribal resources are preserved, and any human Tribal remains are treated in a culturally sensitive way. The project is located on unceded Northern Valley Yokuts lands.

[6] https://data.stocktonca.gov/

Agricultural Resources Mitigation and Hydrology

The proposed Project will result in the conversion of farmland including farmland of statewide importance as indicated by the Department of Conservation Land Division in their NOP/IS comments included in the DEIR. The San Joaquin County Multi-Species Habitat Conservation and Open Space Plan specifically addresses loss of habitat not loss of agricultural activities on agricultural lands[7]. There are different fees related to habitat potential with a category for agricultural lands.

Much of the land is in active agricultural uses and most all of the land should require both City of Stockton Agricultural Land Mitigation (1:1)[8] and San Joaquin County Habitat Mitigation based on a San Joaquin County Council of Government (SJCOG) biological study to determine mitigation level.

6N

The City of Stockton Agricultural Land Mitigation Fee is collected for all applicable new development projects that would result from the conversion of important farmland, as defined by California Department of Conservation, into urban uses. All Agricultural Land Mitigation fees collected pursuant to the agreement should be remitted to Central California Farmland Trust. The Central Valley Farmland Trust is the land trust that facilitates the placement of agricultural conservation easements to fulfill farmland mitigation requirements in the Central Valley.

The Central Valley Farmland Trust does not fulfill habitat mitigation required under the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan and the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan mitigation does not mitigate for the loss of agricultural production. Both mitigations should be required including 1:1 Agricultural Land Mitigation.

6O

The mitigation monitoring and reporting should include a full disclosure of agricultural land mitigation and should be readily available to the public. We have specifically requested that the City of Stockton disclose agricultural mitigation efforts but have yet to receive such a disclosure which should include a financial summary of mitigation fees and project associated conservation easement acreage and locations.

6P

Agricultural land mitigation only ensures that some other agricultural land cannot be easily developed through a conservation easement. Agricultural land mitigation does not create new agricultural land. Once the land is developed it is unlikely ever to return to food or other agricultural-related production. The existing County General Plan designation for the parcels within the project site is Agricultural-Urban Reserve, a designation applied generally to areas that are currently undeveloped or used for agricultural production but that are subject to the pressures of development in an urban fringe area.

6Q

We disagree that the conversion of nearby farmland to non-agricultural uses, is less than significant. The conversion of this land to non-agricultural uses will create additional development pressures on the surrounding farmland and should have been better evaluated in the DEIR.

6R

The conversion of this especially important agricultural land not only will influence local food security, as row crops are food crops, but will significantly affect existing flood buffering, wildlife habitat, and water infiltration. Decreasing the potential for water infiltration by paving

[7] https://www.sjcog.org/288/Habitat-Frequently-Asked-Questions
[8] https://www.calandtrusts.org/wp-content/uploads/2014/03/Overview-of-Legal-Restains-on-Ag-Land-Mit-Programs.pdf

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over of hundreds of acres of soil will negatively affect the Eastern San Joaquin Subbasin's natural ability to recharge groundwater without engineered solutions or pumping curtailments. The environmental analysis should have characterized the positive attributes which will be lost, if developed as described. Removing agricultural land removes the natural climate change attenuator that soils can serve, also affecting the City of Stockton's ability to reduce carbon dioxide levels in the atmosphere through carbon sequestration. Once gone, this agricultural resource will be lost forever.

6R

The project site build out did not include any open space associated with Little Johns Creek even though approximately 0.9 acres of seasonal wetlands was identified in the southern part of the project site. Additional open space mitigation is needed to provide potential floodway room for the North Fork of Little Johns Creek along the southern boundary of the proposed project as well as wetland enhancements to help mitigate pollutant runoff.

6S

The DEIR stated that "given the City's efforts to reduce reliance on groundwater and the acreage of the project site compared to the subbasin, the project is not expected to interfere substantially with groundwater recharge in the subbasin such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level." However, the City of Stockton is currently in the process of rehabilitating a well to pump over 3 million gallons per day for south system drought contingency because under drought conditions surface waters available in the south system from Stockton East Water District may be curtailed. Infiltration throughout the Subbasin is necessary to provide groundwater resources for our especially disadvantaged groundwater users.

The area is currently served by groundwater wells and upon annexation and development would be served by the City of Stockton Municipal Utilities District, which has evidently issued a will-serve letter. The DEIR referenced the West Yost 2021 report and stated that under the multiple dry-year condition, the City would still have approximately 47,365 acre-feet of water supply available after satisfying total demands and that this also would be the case if the City's surface water supplies are limited under emergency water supply conditions due to water shortages brought on by drought. This statement seems to conflict with City of Stockton efforts to improve groundwater pumping potential under drought conditions.

6T

Transportation

Once in operation, the Project is expected to generate 12,370 daily vehicle trips, but it is unclear what proportion is truck trips related to the operation or to workplace commute trips. The DEIR did not include a maximum vehicle mile traveled (VMT) for the project to cap emissions.

The California Air Resources DEIR comments discussed and documented the inadequacy of the modelled analysis of transportation related environmental impact. Air quality impacts are not adequately characterized to disclose potential effects or to prevent or minimize significant, avoidable damage to the environment associated with trucking operations relating to this warehousing project.

6U

The DEIR summarized potential roadways projects near the project site that are part of the 2018 Regional Transportation Plan include the widening of Mariposa Road from Stagecoach Road to Jack Tone Road, widening of an existing BNSF grade separation on Mariposa Road, and the widening of Arch Road from Fite Court to SR 99. No analysis of the contribution of the project to advance the need for these expensive public projects was included nor was there an indication that transportation mitigation would be required other than restriping Mariposa Road.

6W

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Greenhouse Gases, Climate Change and Energy Mitigation Measure

Implementation of the project as discussed in the DEIR will have a significant impact on goals set forth in the City of Stockton 2014 Climate Action Plan relating to proposed truck and potentially rail transport associated with the 3 million plus square feet of industrial warehousing. Mitigation was restricted to construction activities with electric equipment consisting of 3% of the construction related off-road vehicles.

There were no mitigation measures proposed to reduce energy usage during operation such as the use of energy efficient equipment that are in use in a typical warehousing/commercial/industrial operations, installation of solar photovoltaic systems to equal the project's energy needs, using electric on-site equipment warehousing equipment such as forklifts and yard trucks, and constructing electric truck charging and plug in stations suitable for heavy duty trucks and refrigeration units to reduce idling exhaust emissions. 6X

This is a speculative project that will significantly impact environmental resources. Energy efficient building requirements are a good start, but additional mitigation measures are possible. The DEIR minimized the impacts associated with truck-related greenhouse gas production. Additional greenhouse gas, climate change and energy mitigations are necessary so that Stockton residents do not bear solely the environmental burdens associated with the proposed project.

The vehicle miles travelled (VMT) that the proposed project(s) would generate was not disclosed. The DEIR stated that "Because the potential occupants of the project are not known, it is not possible to establish an enforceable commitment to reduce VMT by more than 15 percent. As a result, this impact is considered significant and unavoidable." VMT analyses and mitigation should have considered beyond employee home-work trip reduction effort for workplaces that have more than 100 employees. 6Y

The DEIR did not adequately describe existing and future transportation conditions relating to the VMT associated with a logistical warehouse project of this size with access to an already transportation impacted Highway-99. A detailed VMT analysis should have been conducted to determine if the project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Additionally, consideration of traffic at intersections and roadways immediately around the project to accommodate the proposed truck traffic on a main east-west throughfare, Mariposa Road, should have been included to avoid impacting existing roadway users. Any potential City transportation mitigation fees which may be included in an DA should have been disclosed.

Ultimately, the lead agency will examine each of the environmental issues and decide whether the proposed project has the potential to have a significant impact and what if any mitigation is to be required. If approved, a DA that is transferrable could be established without any defined project. Without a defined project it is very difficult to determine impacts which will ultimately result from this warehousing industrial development. 6Z

Land use is within the City of Stockton's regulatory purview and while the City of Stockton is not expected to enforce CARB or SJVAPCD standards. The City of Stockton's choice to approve projects with an intense trucking component and to make a Statement of Overriding Consideration means that the City of Stockton is knowingly adding new emission sources which will increase the exposure of our residents to pollution without adequate mitigation. Mitigation is needed to reduce the impact of the project and should be paid for by the developer not the residents of Stockton. 6AA

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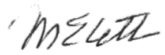
This Project is not vital for our recovery and the DEIR failed to provide sufficient details to determine the document's adequacy to describe the environmental costs associated with the project.

Once again, please add the Delta-Sierra Group to your CEQA notification list. If you have any questions or wish to discuss ways that the City of Stockton could improve public outreach, you may contact me by email at mebeth@outlook.com.

Sincerely,



Mary Elizabeth M.S., R.E.H.S.

Cc: Sierra Club Mother Lode Chapter
Northern Valley Yokuts
NAHC
California Air Resources Board
Office of Attorney General – Department of Justice
San Joaquin County Farm Bureau

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Responses to Comment #6, Sierra Club, Delta-Sierra Group

Response 6A: This comment refers to the South Stockton Commerce Center Project, which is not relevant to the DEIR for this project. While the City did not directly inform the commenter about the Mariposa Industrial Park project, a public Notice of Preparation was issued for the project on December 10, 2020 and printed in the Stockton Record at that time. In addition, a Notice of Availability of the DEIR produced on August 24, 2021, printed in the Stockton Record that same day and filed with the San Joaquin County Clerk's office.

Response 6B: As acknowledged in Response 6A, the City did not directly inform the commenter on the availability of the DEIR. The appendices that were submitted to the State Clearinghouse in September 2021 were related to the Health Risk Assessment, which was included as Appendix I in the DEIR filed with the State Clearinghouse. All appendices that were cited in the DEIR were included in the submittal to the State Clearinghouse.

Although this comment letter was submitted well after the close of the public review period, the City is providing these responses to the letter.

Response 6C: This comment repeats information included in the DEIR. The commenter makes references here and throughout the letter to the project being "speculative." The project has been defined at various stages of planning and design. At each of these stages, the DEIR has reflected these changes and has discussed the potential environmental impacts based on the project as described.

The DEIR described in Chapter 3.0 Project Description what was considered the maximum probable potential development of the site as shown in the preliminary site plan. The potential use of the proposed development as high-cube warehouses was noted as a probability in Chapter 3.0, Project Description based on the results of the applicant's marketing efforts. In all other respects, the project was thoroughly defined in that chapter, and the potential environmental impacts of the project as described were described in detail in the remainder of the DEIR.

The public was not deprived of any opportunity to meaningfully comment on the project and its environmental impacts. The DEIR discusses both project-specific and cumulative impacts of the project, devoting Chapter 18.0 to cumulative impacts. DEIR Chapter 5.0, Agricultural Resources, discusses project impacts on agricultural lands, including agricultural lands near the project site.

Response 6D: The commenter expresses concerns about the potential environmental impacts of a Development Agreement on aesthetics and vehicle trips. That the project would likely include a DA was described in Chapter 3.0, Project Description.

DEIR Chapter 4.0, Aesthetics, discusses the potential aesthetic impacts of taller buildings. The proposed DA would not increase the area, square footage or intensity of the proposed development, so the traffic impact analysis in DEIR Chapter 16.0, Transportation, would remain valid. As noted in Response 5H, the City may share a copy of the DA at its discretion.

Response 6E: The commenter is mostly repeating a description of the proposed project. However, the commenter asserts that the DEIR did not disclose what would be done with excess onsite flows when North Littlejohns Creek has flood flows. DEIR Chapter 12.0, page 12-9, states that the project will be required to submit detailed storm drainage plans that will include facilities and the practices that would prevent discharges to North Littlejohns Creek unless capacity in the creek is available.

Response 6F: The air quality modeling for the project considered the percentage of vehicles that would consist of truck traffic. Please refer to Response 1H.

Response 6G: The comments by the California Air Resources Board and the Department of Justice have been addressed in this FEIR. Please refer to Comment Letter #1 for the California Air Resources Board comment letter and the responses following. Please refer to Comment Letter #3 for the Department of Justice comment letter and the responses following.

The DEIR explicitly states the amount of development that would or could occur on the project site. Please refer to Response 6C. The DEIR acknowledges the potentially significant impacts of the project on air quality and included Air Quality Improvement Measures listed in DEIR Appendix B that are similar to measures recommended by both agencies in the past. Please refer to Responses 1K and 3L. In response to comments from the two aforementioned agencies plus SJVAPCD, the City has included additional Air Quality Improvement Measures that are described in Appendix C of this FEIR.

Response 6H: DEIR Chapter 6.0, Air Quality, discusses project-specific impacts on air quality, and both the DEIR and FEIR include Air Quality Improvement Measures that address project-specific impacts. Please refer to Response 6G. The GPEIR discussion was meant to illustrate that the project was consistent with the GPEIR analysis of air quality and its conclusions. It was also used in the discussion of the cumulative impacts of the project on air quality in DEIR Section 18.3.3. CEQA Guidelines Section 15130(b)(1)(B) states that a summary of projections contained in an adopted general plan or related planning document, or in a prior certified environmental document which described or evaluated regional or area-wide conditions contributing to the cumulative impact, may be used to discuss cumulative impacts in an EIR.

Response 6I: Mitigation measures address specific environmental impacts identified with the project in the DEIR. While it is acknowledged that future conditions may

change, such conditions are inherently speculative. CEQA does not require an EIR to discuss future developments which are unspecified or uncertain, a conclusion reinforced in *Environmental Council of Sacramento v. County of Sacramento* (2020). Moreover, CEQA requires mitigation measures to be enforceable. It is questionable whether any mitigation measure on a project designed to anticipate future conditions can be enforced, particularly when future conditions cannot be accurately described.

Response 6J: The operational emission impacts of the project and potential mitigation measures such as those mentioned by the commenter were discussed in DEIR Chapter 6.0, Air Quality. Since the effectiveness of many of these mitigation could not be quantified, it could not be demonstrated that such mitigation would reduce impacts to a less-than-significant. As such, a conservative conclusion was reached that impacts would be significant and unavoidable, even though mitigation would reduce air pollutant emissions.

Both the California Air Resources Board and the Department of Justice mentioned the *Warehouse Projects: Best Practices* document in their comment letters, and practices from this document have been incorporated in FEIR Appendix C. Please refer to Responses 6G and 6H. Also, please refer to DEIR Appendix B, which also contains a detailed list of air quality mitigation measures.

Response 6K: The project Mitigation Monitoring and Reporting Plan is available to the public on request to the Community Development Department. The commenter's suggestion regarding further publication of these materials

Response 6L: The DEIR disclosed all impacts related to air quality, including discussion of mitigation measures. Additional mitigation has been included in the FEIR. Also included was an assessment of health risks to residents near the project, which was shown in Appendix I of the DEIR. Potential burdens on nearby residents were also discussed in DEIR Chapter 20.0, Other CEQA Issues, in Section 20.4, Environmental Justice.

Response 6M: As noted in DEIR Chapter 8.0, Page 8-4, the City invited several local tribes to consult on the project, in accordance with AB 52. Only the Northern Valley Yokuts tribe requested consultation. However, the tribe did not have further contact with the City after the initial consultation request; DEIR Appendix E documents the correspondence. While the City is obligated under AB 52 to invite tribes to consult on the CEQA analysis of a project, it has no authority to compel a tribe to consult.

DEIR Chapter 8.0 contains Mitigation Measures CULT-1 and CULT-2, which address encounters with buried cultural resources, including those of potential interest to tribes. Both measures require the City to contact the appropriate tribal representatives and also the Native American Heritage Commission in case of

an encounter with a human burial identified as Native American. These mitigation measures would reduce impacts on potential tribal cultural resources to a level that would be less than significant.

Response 6N: DEIR Chapter 5.0, Agricultural Resources, acknowledges the conversion of farmland that would result from the project. The City's Agricultural Lands Mitigation Program is discussed in the DEIR chapter, and the DEIR states that the project would comply with this program. The commenter is correct in stating that the SJMSCP is not primarily an agricultural land mitigation program. However, that was acknowledged in DEIR Chapter 5.0, Page 5-4, which states "Mitigation of agricultural land conversion losses has also been provided, *to a degree*, through the county-wide adoption of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP)…" [emphasis added]

The commenter appears to be confusing the purpose of the Central Valley Farmland Trust with that of the SJMSCP. The Central Valley Farmland Trust specifically is responsible for agricultural land that is intended to be preserved. The project will be required to provide mitigation for both agricultural land and habitat land impacts,

Response 6O: See Response 6K.

Response 6P: The commenter notes that "Agricultural land mitigation only ensures that some other agricultural land cannot be easily developed through a conservation easement. Agricultural land mitigation does not create new agricultural land." While the statement is technically correct, agricultural mitigation as described in the DEIR has been a standard and accepted CEQA best available mitigation practice. Moreover, the DEIR acknowledges that conversion of Farmland is a significant and unavoidable impact of the project, even with implementation of the agricultural land programs.

Response 6Q: The commenter stated that the DEIR is incorrect in its conclusion that conversion of nearby farmland to non-agricultural uses is less than significant impact. This comment is based on an apparent misreading of the analysis under Impact AG-3. Existing available infrastructure and General Plan designations already support potential future conversion of nearby farmland. The project is not expected by itself to create conditions that would lead to or accelerate conversion of nearby farmland.

Response 6R: The commenter claims that there would be many negative outcomes with the conversion of agricultural land that would result from the project. The DEIR discusses the potential impacts of the project on some of the issues raised in the comment. DEIR Chapter 7.0, Biological Resources, discusses impacts on wildlife and their habitats. DEIR Chapter 12.0, Hydrology and Water Quality, discusses impacts on flooding and groundwater. Other potential impacts raised

are speculative, and the commenter provides no evidence that such impacts would be significant. The project site does not include row crop land; the northernmost portion of the site is in orchard use.

While a portion of the project site appears to have grown row crops in the past, that is no longer occurring. The only active agricultural operation is an orchard in the northern section of the site. "Local food security" is a term that is not defined by the commenter. As the term is generally understood, food security is more of a social issue, and CEQA does not consider social impacts of a project unless they can be connected to a project impact on the physical environment. Although a loss of farmland would mean less land on which to grow food, no evidence has been provided that relates this loss of farmland to a local decrease in food security.

Response 6S: DEIR Chapter 7.0, Biological Resources, addressed potential impacts on seasonal wetlands. The commenter states that open space mitigation is needed to provide floodway room for the adjacent North Littlejohns Creek; however, the project site is not within the North Littlejohns Creek floodway, and no evidence is provided that the project would involve floodway impacts.

Response 6T: City well management actions that are outside the project site are not project-related impacts and are therefore not discussed in the DEIR. As noted in Response 6R, Chapter 12.0, Hydrology and Water Quality, discuss project impacts on groundwater. These include elimination of the existing agricultural groundwater demands of the project site by providing City water to serve the proposed industrial uses of the project site.

City actions to rehabilitate existing wells does not conflict with its overall assessment of available water supplies.

Response 6U: Please refer to Responses 1H and 6F regarding consideration of truck traffic. The California Air Resources Board expressed concern about the transportation components that were used in the air quality modeling, but these concerns were addressed in the responses to the comment letter. Please refer in particular to Responses 1G, 1H, and 1J.

Response 6W: The traffic study conducted for the project, which was included in DEIR Appendix G, evaluated project traffic impacts on roads in the vicinity, including Mariposa Road and Arch Road. The study concluded that the project would have no significant impacts on the roadway segments cited in the comment. As noted in DEIR Chapter 16.0, Page 16-20, new development projects would be required to pay the established Regional Transportation Impact Fee that provides funding for the eligible Regional Transportation Plan projects, including the Mariposa Road widening. These would address any effect project contributions to the need for these facilities that are not required of the project itself.

Response 6X: The Stockton Climate Action Plan set targets for the reduction of greenhouse gas emissions to the year 2020. As 2020 has passed, these targets are no longer relevant. Since no new City Climate Action Plan has yet been adopted, the DEIR analysis focused on consistency with the State's 2017 Climate Change Scoping Plan. However, in DEIR Chapter 10.0, Page 10-10, a paragraph notes that the project would be consistent with the Climate Action Plan reduction goals.

The DEIR evaluated project impacts on greenhouse gas emissions. It concluded that impacts would be significant and unavoidable even with proposed mitigation measures. DEIR Chapter 10.0 notes that the Additional Air Quality Improvement Measures listed in DEIR Appendix B would also tend to reduce GHG emissions from construction activities and project operations. As noted in Responses 6G and 6J, additional measures specifically for warehouses have been added in FEIR Appendix C. Even with the additional measures, since their effectiveness cannot be quantified, the City still concludes that greenhouse gas emission impacts are significant and unavoidable.

Response 6Y: The DEIR examined VMT impacts in Chapter 16.0, Transportation. The discussion was based on information provided by the traffic consultant, KD Anderson and Associates. Subsequently, KD Anderson prepared a revised project traffic study, available in FEIR Appendix D, that expanded on this information. It acknowledged that the VMT impacts of the project would be significant, and it recommended several mitigation measures that would reduce VMT. However, quantification of the reduction in VMT by these measures was not considered possible at this time. Also, because the potential occupants of the project were not known at the time of the DEIR, it is not possible to establish an enforceable commitment to reduce VMT by more than 15 percent. As a result, the project VMT impact is considered in the FEIR to remain significant and unavoidable. As industrial users are identified and brought forward for approval, these future projects will be subject to CEQA analysis, including the potential for additional GHG reduction.

The comment regarding avoidance of impacts on existing roadway users is unclear. However, it does not appear that a CEQA environmental issue is being raised; therefore, no further response to this comment is required. The contents of the DA remain in negotiation and subject to change; it was not possible to speculate about the content of the DA at the time of the DEIR.

Response 6Z: This comment provides the commenter's observations of the environmental review process and suggestions for the DA structure. These comments will be taken into consideration by the City as it continues processing of the project.

Response 6AA: The City has addressed air pollutant concerns in the DEIR and in the FEIR in responses to comments from the California Air Resources Board, the

SJVAPCD, and the Department of Justice. Please refer to the responses to comments following each of the letters from these agencies in this FEIR. Also, please refer to Response 6G.

Response 6AB: The DEIR provided a thorough and comprehensive discussion of the environmental impacts of the project. Where the DEIR identified environmental impacts that could not be mitigated or could not be reasonably determined to have been mitigated even with incorporation of measures, it has stated so. In response to comments from several agencies, this FEIR has included additional mitigation measures and clarifications to the DEIR text. However, the analysis and conclusions in the DEIR remain valid, and the DEIR provides adequate detail of project environmental impacts to the public.

Whether or not the project is important to Stockton's economic recovery is a matter to be addressed by the City Council and is not a proper subject for CEQA analysis per CEQA Guidelines Section 15131.

4.0 DRAFT EIR ERRATA

This section of the Final EIR identifies corrections and the addition of any new or revised information to the Public Review DEIR. Changes to the DEIR typically reflect the new or updated information that has become available since publication of the DEIR, information dictated by responses to comments, or minor technical changes to the project or EIR that do not entail a significant impact on the environment. These changes to the Public Review DEIR are modifications or clarifications that build on the information provided in the Draft EIR but do not constitute "significant new information" or "new significant environmental effects" requiring recirculation of the EIR pursuant to CEQA Guidelines Section 15088.5. Revisions to DEIR text are shown as added texts, or as revisions to DEIR texts, in underline and/or strikeout as appropriate.

ERRATA TO DRAFT EIR CHAPTER 3.0, PROJECT DESCRIPTION

The following text is hereby added to Chapter 3.0 Project Description.

> The applicant (Mitchell, pers. comm.) indicates that the proposed project is not intended or designed to accommodate cold storage uses. As a result, cold storage uses are not considered as potential tenants in the DEIR. It is recognized that any future project tenants that propose to establish a cold storage facility will be required to submit project specific information related to the proposed cold storage use, its air quality impacts in relation to the overall air quality impacts for the project as described in the EIR, and any feasible additional mitigation measures that may be needed to reduce the potential air quality impacts of the cold storage use to below the level of impact associated with the non-cold storage uses assumed in the DEIR.

ERRATA TO DRAFT EIR CHAPTER 6.0 AIR QUALITY

The following note is added to the introduction to Chapter 6.0 on page 6-1:

> The analysis of air quality impacts in Chapter 6.0 of the DEIR was referenced to CalEEMod contained in DEIR Appendix C. However, CalEEMod data from a model run that preceded publication of the DEIR was inadvertently included in DEIR Appendix instead of the results of a later model run based on corrected data. The model results, analysis thereof and air quality impact conclusions reported in the DEIR were correctly based on the updated CalEEMod run. The updated CalEEMod run is shown in Appendix B of this FEIR.

In its comments on the DEIR, the SJVAPCD recommended the inclusion of the following mitigation measure in the Final EIR. The mitigation measures is hereby added as Mitigation Measure for Impact AIR-1 and is also shown in Table 2-1:

To reduce impacts from construction-related diesel exhaust emissions, the Project should utilize the cleanest available off-road construction equipment, including the latest tier equipment.

Table 6-4 is modified as follows, to be consistent with the results of the CalEEMod run used in the EIR analysis of project air quality impacts. These results include air pollutant quantities associated with inclusion of air pollutant emissions resulting from importation of aggregate base materials:

TABLE 6-4
SJVAPCD SIGNIFICANCE THRESHOLDS AND
PROJECT AIR POLLUTANT EMISSIONS

	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
SJVAPCD Significance Thresholds[1]	**10**	**10**	**100**	**27**	**15**	**15**
Construction Emissions[2]	8.87	8.34	7.66	0.04	2.19	0.74
Above Threshold?	*No*	*No*	*No*	*No*	*No*	*No*
Operational Emissions[3]	8.76	~~**22.14**~~	~~33.87~~	0.21	~~14.31~~	~~4.05~~
		22.03	33.70		14.22	4.03
Above Threshold?	*No*	***Yes***	*No*	*No*	*No*	*No*
With implementation of Rule 9510	-	**14.77**	-	-	7.15	-

The last paragraph in the discussion of Impact AIR-2 is hereby modified as follows:

The proposed project is consistent with the land use designations set forth in the Stockton General Plan 2040. As such, the project does not have any air quality impacts not otherwise analyzed in the GPEIR. However, the City is not able to quantify the degree to which ~~it is not certain that~~ application of SJVAPCD rules such as Rule 9510, and the Additional Air Quality Improvement Measures shown in Appendix C, which are considered feasible mitigation measures, would reduce NO_x emissions resulting from the project, or whether these emissions could be reduced to below the SJVAPCD significance threshold. Therefore, the potential operational impacts of the proposed project regarding consistency with the applicable air quality plans are considered potentially significant and unavoidable. Though not quantifiable, potentially substantial additional mitigation for NOx emissions could be provided by implementation of the Air Quality Improvement Measures shown in Appendix C, although the amount of emission reduction cannot be reliably quantified.

The following text is added to the description of the Voluntary Emission Reduction Agreement on page 6-10 of the DEIR.

As discussed in the responses to comments from the California Air Resources Board, the San Joaquin Valley APCD, and the California Department of Justice,

the FEIR includes all feasible air quality mitigation measures. Many of these measures are believed to be effective in reducing criteria pollutant emissions, including NOx but cannot be reliably quantified. In the event that it is determined that the effectiveness of proposed mitigation measures can be reliably quantified and additional mitigation measures are needed, adoption of a VERA would provide a feasible option for incorporating such measures in the approval of the proposed project.

ERRATA TO DRAFT EIR CHAPTER 14.0, NOISE

The initial phrase of Mitigation Measure NOISE-1 is modified to read as follows:

> NOISE-1: Sound walls and/or berms 10 feet in height shall be required

ERRATA TO DRAFT EIR CHAPTER 15.0, PUBLIC SERVICES

The first paragraph of Impact PSR-1 on page 15-7 of the DEIR is revised to read as follows:

> Project site annexation and development would generate new demand for fire protection services from the Stockton Fire Department. Demands for service from nearby industrial areas are currently served by the Stockton Fire Department, and further development including the project can be served by the Fire Department. Without additional facilities and staffing, the Fire Department has indicated that response times to the project site would likely remain in the range of existing response times ~~10-12 minutes~~ due to the traffic typically found on the main routes providing access to the project area, South Airport Way and SR 99 (Phil Simon, electronic mail). This would be a substantially greater response time than the target set in the Stockton General Plan 2040.

Paragraph 2 on page 15-8 is revised to read as follows:

As noted in the Environmental Setting section above, the Department is under increasing strain to meet citywide service demands, which, in the south Stockton industrial areas, is associated with continuing industrial and other development. To address long-term fire protection needs and eventual urbanization of the project area, the City of Stockton is currently working to establish a Community Facilities District (CFD) to fund the construction of a new Stockton Fire Station in the Mariposa Road corridor. This new station will be staffed with 3 personnel from the ongoing CFD assessment. ~~The Fire Department is presently engaged, together with other City departments, the project proponents and other industrial developers, in planning the siting, financing, construction and staffing of a new fire station in the general project vicinity.~~ These efforts will allow the Department to meet increasing service demands and while reducing relatively long response times (Chief Edwards, pers. comm.).

ERRATA TO DRAFT EIR CHAPTER 16.0, TRANSPORTATION

The DEIR discussion of the potential transportation impacts of the project was based on a version of a traffic study completed in April 12, 2021. Subsequent to publication of the

DEIR, the traffic study was updated on July 9, 2021 to address a number of technical points as requested by City staff. This updated version of the traffic study is shown in Appendix D of this FEIR.

ERRATA TO DRAFT EIR CHAPTER 18.0, CUMULATIVE IMPACTS

Based on the analysis in DEIR Chapter 6.0, Air Quality, the project could be expected to make a considerable contribution to cumulative impacts on air quality, but the cumulative impact analysis in Chapter 18.0 reached a different conclusion. After receiving a comment from the Attorney General's Office regarding discussion of cumulative impacts of the project on air quality, the following text revisions were made to Section 18.3.3, beginning with the second paragraph on page 18-5:

> CalEEMod estimates of air pollutant emissions from construction and operation of the proposed project indicate that neither SJVAPCD construction nor operational significance thresholds would be exceeded, except for NO_x operational emissions~~with assumed application of SJVAPCD rules~~. The SJVAPCD's Guide for Assessing and Mitigating Air Quality Impacts notes that project emissions may be cumulatively considerable even if they are below SJVAPCD significance thresholds~~. However, a~~As discussed in Chapter 6.0, Air Quality, the significance thresholds are applied to evaluate regional impacts of project-specific emissions of air pollutants. Regional impacts of a project can be characterized in terms of total annual emissions of criteria pollutants and their impact on SJVAPCD's ability to reach attainment of criteria pollutant standards. On that basis, the proposed project would not result in a considerable contribution to a significant cumulative air quality impact in the Air Basin. However, the NO_x operational emissions of the project would exceed SJVAPCD significance thresholds. This impact, described in Chapter 6.0, Air Quality, was determined to be significant and unavoidable, even with application of SJVAPCD rules and the Additional Air Quality Improvement Measures (see Appendix B of this EIR). For NO_x operational emissions, the project would make a considerable contribution to cumulative impacts on NO_x emissions.
>
> The proposed project would involve emissions of TACs, mainly diesel PM from truck traffic. The California Attorney General's Office has expressed concern that such emissions would adversely affect nearby residents identified as being within a disadvantaged community and has suggested several mitigation measures that would reduce diesel PM and other pollutant emissions. Appendix B contains the Attorney General Office's suggested measures, titled Additional Air Quality Improvement Measures, that are considered applicable to the project. It is expected that the proposed project would also incorporate these measures as applicable, thereby further reducing the cumulative effects of the proposed project on TACs.
>
> Overall, the project would result in a considerable contribution to cumulative NO_x emissions, but it would make a less-than-considerable contribution to ~~any~~other cumulative air quality effects.

Contribution to Significant Cumulative Impacts: ~~Less than c~~Considerable

Mitigation Measures: None ~~required~~feasible

ERRATA TO DRAFT EIR CHAPTER 21.0, SOURCES

The following sources are added to Chapter 21.0 Sources, Section 21.1:

Environmental Permitting Specialists. 2020. Draft Analysis of Public Health Risks at a Proposed Land Use Development, Stockton, California. May 20, 2020.

Environmental Permitting Specialists. 2021. Draft Analysis of Public Health Risks at a Proposed Industrial Development, Stockton, California. May 1, 2021.

KD Anderson and Associates. 2021. Traffic Impact Study for the Mariposa Industrial Park Project**,** Stockton, California. July 9, 2021.

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2021. Community Emissions Reduction Program – Stockton. March 18, 2021.

The following sources are added to Chapter 21.0 Sources, Section 21.2:

Mitchell, Rob. Greenlaw Partners.

FEIR APPENDIX A
PUBLIC REVIEW MATERIAL

State of California - Department of Fish and Wildlife

2021 ENVIRONMENTAL FILING FEE CASH RECEIPT

DFW 753.5a (REV. 01/01/21) Previously DFG 753.5a

RECEIPT NUMBER: 39-08242021-263

STATE CLEARINGHOUSE NUMBER *(If applicable)*

SEE INSTRUCTIONS ON REVERSE. TYPE OR PRINT CLEARLY.

LEAD AGENCY	LEAD AGENCY EMAIL	DATE
CITY OF STOCKTON COMMUNITY DEVELOPMENT		08/24/2021

COUNTY/STATE AGENCY OF FILING	DOCUMENT NUMBER
SAN JOAQUIN	39-08242021-263

PROJECT TITLE

MARIPOSA INDUSTRIAL PARK PROJECT

PROJECT APPLICANT NAME	PROJECT APPLICANT EMAIL	PHONE NUMBER
CITY OF STOCKTON COMMUNITY DEVELOPMENT		00

PROJECT APPLICANT ADDRESS	CITY	STATE	ZIP CODE
345 N EL DORADO ST	STOCKTON	CA	95202

PROJECT APPLICANT *(Check appropriate box)*

☒ Local Public Agency ☐ School District ☐ Other Special District ☐ State Agency ☐ Private Entity

CHECK APPLICABLE FEES:

☐ Environmental Impact Report (EIR)	$3,445.25	$
☐ Mitigated/Negative Declaration (MND)(ND)	$2,480.25	$
☐ Certified Regulatory Program (CRP) document - payment due directly to CDFW	$1,171.25	$

☐ Exempt from fee

- ☐ Notice of Exemption (attach)
- ☐ CDFW No Effect Determination (attach)

☐ Fee previously paid (attach previously issued cash receipt copy)

☐ Water Right Application or Petition Fee (State Water Resources Control Board only)	$850.00	$
☐ County documentary handling fee		$
☐ Other		$

PAYMENT METHOD:

☐ Cash ☐ Credit ☐ Check ☐ Other **TOTAL RECEIVED** $ $0.00

SIGNATURE	AGENCY OF FILING PRINTED NAME AND TITLE
X	Rosa Arceo ,Deputy

ORIGINAL - PROJECT APPLICANT COPY - CDFW/ASB COPY - LEAD AGENCY COPY - COUNTY CLERK DFW 753.5a (Rev. 01012021)

PUBLIC NOTICE OF AVAILABILITY
DRAFT ENVIRONMENTAL IMPACT REPORT
(Pursuant to Public Resources Code Sections 21092 and 21092.3 and Cal. Code of Regulations Title 14, Section 15087)

The City of Stockton has completed the following Draft Environmental Impact Report (DEIR) SCH #2020120283 for the Mariposa Industrial Park project. The City of Stockton is the Lead Agency for this project under the California Environmental Quality Act (CEQA).

The project applicant proposes the annexation and industrial development of nine parcels, located South of Mariposa Road and east of the termini of Clark Drive and Marfargoa Road, into the City of Stockton. In conjunction with annexation, the site would be prezoned to IL zoning designation (Title 16 of the Stockton Municipal Code) industrial development of up to 60 percent of the site area, where building heights reaching 60 feet would be permitted. The Conceptual Site Plan for the project proposes the construction of seven buildings totaling approximately 3.6 million square feet in floor area, vehicular access, utility service and storm drainage detention.

The Draft EIR discusses the range of environmental concerns listed in the latest CEQA Environmental Checklist and identifies significant environmental effects in the following issue areas:

Agricultural Resources
Air Quality
Biological Resources
Cultural Resources
Geology, Soils and Mineral Resources
Greenhouse Gas Emissions
Noise
Public Services and Recreation
Transportation

There are no sites identified under Section 65962.5 of the Government Code located on or near the project site.

Copies of the Draft EIR are available for public review at the City of Stockton Community Development Department at the address shown below and at the City's website: **https://www.stocktonca.gov.**

The City will accept public and agency comments in the Draft EIR during a 45-day review period that will begin on **August 24, 2021** and end on **October 7, 2021**. Comments may be submitted by mail or e-mail to the City at the address shown below or to: **Nicole.Moore@stocktonca.gov**

City of Stockton
Community Development Department
345 N. El Dorado Street
Stockton, Ca. 95202
Attention: Nicole Moore, LEED-AP

Filed Doc #: 39-08242021-263
08/24/2021 02:49:31 PM
Steve J. Bestolarides
San Joaquin County Clerk

THE RECORD
PROOF OF PUBLICATION

STATE OF CALIFORNIA
COUNTY OF SAN JOAQUIN

THE UNDERSIGNED SAYS:

I am a citizen of the United States and a resident of San Joaquin County; I am over the age of 18 years and not a part to or interested in the above-entitled matter. I am the principal clerk of the printer of THE RECORD, a newspaper of general publication, printed and published daily in the City of Stockton, County of San Joaquin by the Superior Court of the County of San Joaquin, State of California, under the date of February 26, 1952, File No. 52857, San Joaquin County Records; that the notice of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published each regular and entire issue of said newspaper and not in any supplement thereof on the following dates,
To wit,
August 24 2021

I declare under penalty of perjury that the foregoing is true and correct. Executed on August 24, 2021 In Stockton California

Delailah Little,
The Record

0000246032

PUBLIC NOTICE OF AVAILABILITY
DRAFT ENVIRONMENTAL IMPACT REPORT (PURSUANT TO PUBLIC RESOURCES CODE SECTIONS 21092 AND 21092.3 AND CAL. CODE OF REGULATIONS TITLE 14, SECTION 15087)

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The Draft EIR discusses the range of environmental concerns listed in the latest CEQA Environmental Checklist and identifies significant environmental effects in the following issue areas: Agricultural Resources, Noise, Air Quality, Public Services and Recreation, Biological Resources, Transportation, Cultural Resources, Geology, Soils and Mineral Resources, and Greenhouse Gas Emissions. There are no sites identified under Section 65962.5 of the Government Code located on or near the project site. Copies of the Draft EIR are available for public review at the City of Stockton Community Development Department at the address shown below and at the City's website: www.stocktonca.gov.

The City will accept public and agency comments in the Draft EIR during a 45-day review period that will begin on August 24, 2021 and end on October 7, 2021. Comments may be submitted by mail or e-mail to the City at the address shown below or to: Nicole.Moore@stocktonca.gov. City of Stockton, Community Development Department, 345 N. El Dorado Street, Stockton, CA 95202.

ELIZA R. GARZA, CMC
CITY CLERK
CITY OF STOCKTON

#246032 8/24/21

Agency	Representative	Street	City State	Zip	Email	Phone	Fax
Central Valley Farmland Trust	Attn: Charlotte Mitchell	8788 Elk Grove Blvd Bldg1, Ste 1	Elk Grove, CA	95624			
American Farmland Trust		2001 N St, Ste 110	Sacramento, CA	95816			
SJ LAFCo	Attn: Jim Glaser	509 W Weber Avenue, Suite 420	Stockton, CA	95203			
San Joaquin County Environmental Health Services	Attn: Donna Heran	1868 Hazelton Avenue	Stockton, CA	95205			
San Joaquin Regional Transit District (SJRTD)	Planning Division	P.O. Box 201010	Stockton, CA	95201			
Stockton Unified School District	Attn: Steve Breakfield	1944 El Pinal Dr.	Stockton, CA	95205			
SJCO Community Development Department	Planning Division	1810 E Hazelton Ave	Stockton, CA	95205			
SJCOG INC	Proj. Dev./Habitat Plan	555 E. Weber Avenue	Stockton, CA	95202			
San Joaquin Valley Air Pollution Control District	CEQA ISR	4800 Enterprise Way	Modesto, CA	95356			
Caltrans	District 10	PO Box 2048	Stockton, CA	95201			
Clearinghouse (15)	Office of Planning & Research	P O Box 3044	Sacramento, CA	95812			
Clearinghouse (15)	Office of Planning & Research	1400 Tenth Street, Suite #12	Sacramento, CA	95812			
US Fish and Wildlife	Ms. Jennifer Noris	2800 Cottage Way, Room W-2605	Sacramento, CA	95825			
San Joaquin COG		555 E Weber Ave	Stockton, CA	95202			
Regional Water Quality Control Board	Central Valley , Region 5	11020 Sun Center Drive, #200	Rancho Cordova, CA	95670			
American Indian Council of Mariposa County	Lois Martin	1801 Airport Road	Mariposa, CA	95338	mariposapowwow@gmail.com	209-721-2244	
Buena Vista Rancheria of Me-Wuk Indians	Michael Despain	1418 20th St, Suite 200	Sacramento, CA	95811	mike@buenavistatribe.com	916-491-0011	
California Valley Miwok Tribe		4620 Shipee Ln	Stockton, CA	95212	office@cvmt.net	(209) 931-4567	
Northern Valley Yokuts	Katherine Erolinda Perez, MLD	PO Box 717	Linden, CA	95236	canutes@verizon.net		
Wilton Rancheria, Environmental Resources Department		9728 Kent St	Elk Grove, CA	95624	tribaloffice@wiltonrancheria-nsn.gov	916-683-6000	916-683-6015
Native American Heritage Commission		1550 Harbor Blvd, Suite 100	West Sacramento, CA	95691	nahc@nahc.ca.gov	(916) 373-3710	(916) 373-5471
United Auburn Indian Community of the Auburn Ranch	Gene White House, Chairman	10720 Indian Hill Rd	Auburn, CA	95603	tball@auburnrancheria.com	(530) 883-2390	
Ione Band of Miwok Indians	Sara Dutschke Setshwaelo	PO Box 669	Plymouth, CA	95669	cultrualcommittee@ionemiwok.net	(209) 245-5800	
Torres Martinez Desert Cahuilla Indians		PO Box 1160	Thermal, CA	92274	webmaster@torresmartinez.org	760-397-0300	760-397-9853
EBMUD	Aqueduct Section	1804 W Main Street	Stockton, CA	95203			
PG&E-Stockton Division	Attn: Theresa English-Soto	4040 West Lane	Stockton, CA	95204			
Republic Services		1145 West Charter Way	Stockton, CA	95206			
San Joaquin Joint Powers Authority (ACE)		946 E Channel St	Stockton, CA	95202			
Stockton East Water District		PO Box 5157	Stockton, CA	9525			
Stockton Scavenger Association		1240 Navy Drive	Stockton, CA	95206-1167			
Stockton Terminal Eastern RR Co		1330 N. Broadway Ave.	Stockton, CA	95205			
Union Pacific Railroad Co.		844 E 5th Street	Stockton, CA	95206			
Union Pacific Railroad Co.		915 L Street	Sacramento. CA	95814			
Department of Water Resources		1416 9th Street	Sacramento, CA	95814			
Energy Commission	Environmental Document Review	1516 9th Street, Room 200	Sacramento, CA	95814			
Integrated Waste Management Board	Environmental Section	1001 I Street	Sacramento, CA	95814			
Land Conservation Contracts Section	MS24-03, Dale Will	802 K Street	Sacramento, CA	95814			
Lands Commission		100 Howe Avenue, Suite 100 South	Sacramento, CA	95825-8202			
Native American Heritage Commission		1550 Harbor Blvd, Suite 100	West Sacramento, CA	95691			
Northern California Youth Correctional Facility	7650 S. Newcastle Rd.	PO Box 213004	Stockton, CA	95213-9004			
Office of Historic Preservation		1725 23rd Street, Suite 100	Sacramento, CA	95816			
Public Utilities Commission	Energy Division-Environmental Section	505 Van Ness	San Francisco, CA	94102			
Public Utilities Commission	Railroad Safety/Carriers Branch	505 Van Ness	San Francisco, CA	94102			
Reclamation Board		3310 El Camino Ave., Rm. LL40	Sacramento, CA	95821			
Regional Water Quality Control Board	Central Valley , Region 5	11020 Sun Center Drive, #200	Rancho Cordova, CA	95670			
Senator Cathleen Galgiani	5th District	31 E Channel Street, Room 440	Stockton, CA	95202			
State Building	Attn: Gary Alexander	31 E Channel Street, Room 108	Stockton, CA	95202			
State Water Resources Control Board	Attn: Ahmad Kashkoli, Sr. Environmental Scientist	1001 I Street, 16th Floor	Sacramento, CA	95814			
Deparment of Fish & Wildlife	Region 2, Environmental Services	1701 Nimbus Road, Suite A	Rancho Cordova, CA	95670			
Department of Housing & Community Development	Attn: Randall Deems, Acting Director	2020 W El Camino Avenue	Sacramento, CA	95833			
San Joaquin Valley Air Pollution Control District	CEQA ISR	4800 Enterprise Way	Modesto, CA	95356			

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH # 2020120283

Project Title: Mariposa Industrial Park Project

Lead Agency: City of Stockton Community Development Department | Contact Person: Nicole Moore

Mailing Address: 345 N. El Dorado Street | Phone: 209-937-8195

City: Stockton | Zip: 95202 | County: San Joaquin

Project Location: County: San Joaquin | City/Nearest Community: Stockton

Cross Streets: Mariposa Road and Carpenter Road | Zip Code: 95215

Longitude/Latitude (degrees, minutes and seconds): 37 ° 55 ′ 31 ″ N / 121 ° 12 ′ 30 ″ W Total Acres: 206

Assessor's Parcel No.: Several | Section: 59, 69 | Twp.: 1N | Range: 7E | Base: Mt Diablo

Within 2 Miles: State Hwy #: 99 | Waterways: N Littlejohns Creek

Airports: Stockton Metropolitan | Railways: BNSF | Schools: Nightingale (SUSD)

Document Type:

CEQA: ☐ NOP ☐ Early Cons ☐ Neg Dec ☐ Mit Neg Dec ☒ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ☐ Other:

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI

Other: ☐ Joint Document ☐ Final Document ☐ Other:

Local Action Type:

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan
☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☒ Site Plan
☐ Rezone ☒ Prezone ☐ Use Permit ☒ Land Division (Subdivision, etc.)
☒ Annexation ☐ Redevelopment ☐ Coastal Permit ☐ Other:

Development Type:

☐ Residential: Units ____ Acres ____
☐ Office: Sq.ft. ____ Acres ____ Employees ____
☐ Commercial: Sq.ft. ____ Acres ____ Employees ____
☒ Industrial: Sq.ft. 3.6 m Acres 206 Employees ____
☐ Educational:
☐ Recreational:
☐ Water Facilities: Type ____ MGD ____
☐ Transportation: Type
☐ Mining: Mineral
☐ Power: Type ____ MW ____
☐ Waste Treatment: Type ____ MGD ____
☐ Hazardous Waste: Type
☐ Other:

Project Issues Discussed in Document:

☒ Aesthetic/Visual ☒ Agricultural Land ☒ Air Quality ☒ Archeological/Historical ☒ Biological Resources ☐ Coastal Zone ☒ Drainage/Absorption ☐ Economic/Jobs
☐ Fiscal ☒ Flood Plain/Flooding ☐ Forest Land/Fire Hazard ☒ Geologic/Seismic ☐ Minerals ☒ Noise ☒ Population/Housing Balance ☒ Public Services/Facilities
☒ Recreation/Parks ☒ Schools/Universities ☐ Septic Systems ☒ Sewer Capacity ☒ Soil Erosion/Compaction/Grading ☒ Solid Waste ☒ Toxic/Hazardous ☒ Traffic/Circulation
☒ Vegetation ☒ Water Quality ☒ Water Supply/Groundwater ☒ Wetland/Riparian ☒ Growth Inducement ☒ Land Use ☒ Cumulative Effects ☐ Other:

Present Land Use/Zoning/General Plan Designation:

Existing use is vacant and agricultural; existing zoning is agricultural; existing GP is industrial

Project Description: *(please use a separate page if necessary)*

The project proposes annexation and industrial development of nine parcels totaling 206 acres adjacent to the City of Stockton. Conceptual development plans involve seven “high-cube” warehouses with a total floor area of 3.6 million square feet together with circulation, parking, utility infrastructure, and access from Mariposa Road.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "**X**".
If you have already sent your document to the agency please denote that with an "**S**".

_____ Air Resources Board
_____ Boating & Waterways, Department of
_____ California Emergency Management Agency
_____ California Highway Patrol
_____ Caltrans District # 10
_____ Caltrans Division of Aeronautics
_____ Caltrans Planning
_____ Central Valley Flood Protection Board
_____ Coachella Valley Mtns. Conservancy
_____ Coastal Commission
_____ Colorado River Board
_____ Conservation, Department of
_____ Corrections, Department of
_____ Delta Protection Commission
_____ Education, Department of
_____ Energy Commission
_____ Fish & Game Region # 2
_____ Food & Agriculture, Department of
_____ Forestry and Fire Protection, Department of
_____ General Services, Department of
_____ Health Services, Department of
_____ Housing & Community Development
_____ Native American Heritage Commission
_____ Office of Historic Preservation
_____ Office of Public School Construction
_____ Parks & Recreation, Department of
_____ Pesticide Regulation, Department of
_____ Public Utilities Commission
_____ Regional WQCB # 5
_____ Resources Agency
_____ Resources Recycling and Recovery, Department of
_____ S.F. Bay Conservation & Development Comm.
_____ San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
_____ San Joaquin River Conservancy
_____ Santa Monica Mtns. Conservancy
_____ State Lands Commission
_____ SWRCB: Clean Water Grants
_____ SWRCB: Water Quality
_____ SWRCB: Water Rights
_____ Tahoe Regional Planning Agency
_____ Toxic Substances Control, Department of
_____ Water Resources, Department of
_____ Other: _____
_____ Other: _____

Local Public Review Period (to be filled in by lead agency)

Starting Date July 26, 2021 Ending Date September 8, 2021

Lead Agency (Complete if applicable):

Consulting Firm: BaseCamp Environmental, Inc.
Address: 802 West Lodi Ave
City/State/Zip: Lodi, Ca. 95240
Contact: Charlie Simpson
Phone: 209-224-8213

Applicant: Greenlaw Development, LLC
Address: 18301 Von Carmen Ave, Suite 250
City/State/Zip: Irvine, Ca. 92612
Phone: 949-309-1322

Signature of Lead Agency Representative: _____ **Date:** _____

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

Subject: Verification of SCH posting, Mariposa Industrial DEIR SCH Number 2020120283
Date: Tuesday, August 24, 2021 at 3:25:47 PM Pacific Daylight Time
From: Charlie Simpson
To: Nicole Moore
CC: Rob Mitchell, Mike Souza, Terry Farmer
Attachments: image001.png

For your files

Charlie

Charlie Simpson
BaseCamp Environmental, Inc.
802 West Lodi Avenue
Lodi, CA 95240
209-224-8213

BaseCamp Environmental, Inc.

From: Jillian Knox <Jillian.Knox@OPR.CA.GOV>
Sent: Tuesday, August 24, 2021 3:21 PM
To: Rayanna Beck <rbeck@basecampenv.com>
Subject: SCH Number 2020120283

Hello,

Your project is published and is available for review. Please note the review 'start' and 'end' period.

Closing Letters: The State Clearinghouse (SCH) would like to inform you that our office will transition from providing close of review period acknowledgement on your CEQA environmental document, at this time. During the phase of not receiving notice on the close of review period, comments submitted by State Agencies at the close of review period (and after) are available on CEQAnet.

Please visit: https://ceqanet.opr.ca.gov/Search/Advanced

• Filter for the SCH# of your project OR your “Lead Agency”
• If filtering by “Lead Agency”
• Select the correct project
• Only State Agency comments will be available in the “attachments” section: bold and highlighted

Thank you for using CEQA Submit.

Jillian Knox
State Clearinghouse

To view your submission, use the following link.
https://ceqasubmit.opr.ca.gov/Document/Index/266554/6

Mariposa Industrial Park Public Review Draft EIR

Summary

SCH Number
2020120283

Lead Agency
City of Stockton

Document Title
Mariposa Industrial Park Public Review Draft EIR

Document Type
EIR - Draft EIR

Received
8/24/2021

Present Land Use
Existing use is vacant and agricultural; existing zoning is agricultural; existing GP is industrial

Document Description
The project proposes annexation and industrial development of nine parcels totaling 206 acres adjacent to the City of Stockton. Conceptual development plans involve seven “high-cube” warehouses with a total floor area of 3.6 million square feet together with circulation, parking, utility infrastructure, and access from Mariposa Road

Contact Information

Name
Nicole Moore

Agency Name
City of Stockton, LEED-AP

Contact Types
Lead/Public Agency

Address

345 N. El Dorado Street
Stockton, CA 95202

Phone

(209) 937-8195

Email

Nicole.Moore@stocktonca.gov

Location

Cities
Stockton

Counties
San Joaquin

Regions
Citywide

Cross Streets
Mariposa Road and Carpenter Road

Zip
95215

Total Acres
206

State Highways
99

Railways
BNSF

Airports
Stockton Metropolitan

Schools
SUSD

Waterways
N Littlejohns Creek

Township
1N

Range
7E

Section
59, 69

Base
MDBM

Notice of Completion

Review Period Start
8/24/2021

Review Period End
10/7/2021

Development Types
Industrial (Sq. Ft. 3600000, Acres 206, Employees 1)

Local Actions
Site Plan, Prezone, Land Division (Subdivision, etc.), Annexation

Project Issues
Aesthetics, Agriculture and Forestry Resources, Air Quality, Biological Resources, Cultural Resources, Drainage/Absorption, Flood Plain/Flooding, Geology/Soils, Greenhouse Gas Emissions, Growth Inducement, Hazards & Hazardous Materials, Hydrology/Water Quality, Land Use/Planning, Noise, Population/Housing, Public Services, Recreation, Schools/Universities, Sewer Capacity, Solid Waste, Transportation, Tribal Cultural Resources, Utilities/Service Systems, Wetland/Riparian

Reviewing Agencies
California Air Resources Board (ARB), California Department of Conservation (DOC), California Department of Fish and Wildlife, Bay Delta Region 3 (CDFW), California Department of Fish and Wildlife, Central Region 4 (CDFW), California Department of Fish and Wildlife, North Central Region 2 (CDFW), California Department of Parks and Recreation, California Department of Transportation, District 10 (DOT), California Department of Transportation, Division of Aeronautics (DOT), California Department of Transportation, Division of Transportation Planning (DOT), California Department of Water Resources (DWR), California Governor's Office of Emergency Services (OES), California Highway Patrol (CHP), California Native American Heritage Commission (NAHC), California Natural Resources Agency, California Public Utilities Commission (CPUC), California Regional Water Quality Control Board, Central Valley Fresno Region 5 (RWQCB), Central Valley Flood Protection Board, Department of Toxic Substances Control, Office of Historic Preservation, State Water Resources Control Board, Division of Drinking Water

Attachments

Draft Environmental Document [Draft IS, NOI_NOA_Public notices, OPR Summary Form, Appx,]

3029 Public Review Draft EIR 8-24-21 PDF 92202 K

Summary_Form_for_Document_Submittal PDF 577 K

Notice of Completion [NOC] Transmittal form

Mariposa Industrial NOC for DPREIR PDF 235 K

FEIR APPENDIX B
REVISED CALEEMOD REPORT

Mariposa Industrial Park

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	3,616.87	1000sqft	203.80	3,616,870.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2026
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 - Actual parcel size.

Construction Phase - Anticipated construction schedule.

Grading - Actual acreage graded.

Architectural Coating - Per SJVAPCD Rule 4601.

Vehicle Trips - Construction emission calculations only.

Consumer Products - Construction emission calculations only.

Area Coating - Construction emissions only.

Landscape Equipment - Construction emissions only.

Energy Use - Construction emissions only.

Water And Wastewater - Construction emissions only.

Solid Waste - Construction emissions only.

Land Use Change -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	0
tblAreaCoating	Area_EF_Nonresidential_Interior	150	0
tblAreaCoating	Area_Nonresidential_Exterior	1808435	0
tblAreaCoating	Area_Nonresidential_Interior	5425305	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	150	0
tblConstructionPhase	NumDays	330.00	30.00
tblConstructionPhase	NumDays	4,650.00	750.00
tblConstructionPhase	NumDays	300.00	10.00
tblConstructionPhase	NumDays	465.00	30.00
tblConstructionPhase	NumDays	330.00	45.00
tblConstructionPhase	NumDays	180.00	60.00

tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblEnergyUse	LightingElect	2.33	0.00
tblEnergyUse	NT24E	1.77	0.00
tblEnergyUse	T24E	0.50	0.00
tblEnergyUse	T24NG	6.11	0.00
tblGrading	AcresOfGrading	75.00	183.00
tblGrading	MaterialImported	0.00	148,427.00
tblLandUse	LotAcreage	83.03	203.80
tblSolidWaste	LandfillCaptureGasFlare	94.00	100.00
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	SolidWasteGenerationRate	3,399.86	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.68	0.00
tblWater	AerobicPercent	87.46	0.00
tblWater	AnaDigestCombDigestGasPercent	100.00	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToSupply	2,117.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	IndoorWaterUseRate	836,401,187.50	0.00
tblWater	SepticTankPercent	10.33	100.00

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					
2022	0.6439	7.6416	4.5487	0.0239	1.6642	0.1352	1.7993	0.6109	0.1258	0.7366	0.0000	2,215.5772	2,215.5772	0.1721	0.0000	2,219.8784
2023	1.0005	8.3436	7.6600	0.0382	2.0822	0.1069	2.1892	0.5654	0.1005	0.6659	0.0000	3,530.9197	3,530.9197	0.1795	0.0000	3,535.4070
2024	0.9473	8.1890	7.3011	0.0377	2.0983	0.0961	2.1943	0.5697	0.0903	0.6600	0.0000	3,489.3311	3,489.3311	0.1765	0.0000	3,493.7432
2025	8.8724	4.2647	3.9617	0.0197	1.1047	0.0533	1.1580	0.2997	0.0500	0.3497	0.0000	1,817.8560	1,817.8560	0.1029	0.0000	1,820.4295
Maximum	**8.8724**	**8.3436**	**7.6600**	**0.0382**	**2.0983**	**0.1352**	**2.1943**	**0.6109**	**0.1258**	**0.7366**	**0.0000**	**3,530.9197**	**3,530.9197**	**0.1795**	**0.0000**	**3,535.4070**

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					
2022	0.6439	7.6416	4.5487	0.0239	1.6642	0.1352	1.7993	0.6109	0.1258	0.7366	0.0000	2,215.5768	2,215.5768	0.1721	0.0000	2,219.8780
2023	1.0005	8.3436	7.6600	0.0382	2.0822	0.1069	2.1892	0.5654	0.1005	0.6659	0.0000	3,530.9193	3,530.9193	0.1795	0.0000	3,535.4067
2024	0.9473	8.1890	7.3011	0.0377	2.0983	0.0961	2.1943	0.5697	0.0903	0.6600	0.0000	3,489.3307	3,489.3307	0.1765	0.0000	3,493.7428
2025	8.8724	4.2647	3.9617	0.0197	1.1047	0.0533	1.1580	0.2997	0.0500	0.3497	0.0000	1,817.8557	1,817.8557	0.1029	0.0000	1,820.4292
Maximum	**8.8724**	**8.3436**	**7.6600**	**0.0382**	**2.0983**	**0.1352**	**2.1943**	**0.6109**	**0.1258**	**0.7366**	**0.0000**	**3,530.9193**	**3,530.9193**	**0.1795**	**0.0000**	**3,535.4067**

	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	**4-4-2022**	**7-3-2022**	1.1473	1.1473
2	**7-4-2022**	**10-3-2022**	4.2983	4.2983
3	**10-4-2022**	**1-3-2023**	2.8945	2.8945
4	**1-4-2023**	**4-3-2023**	2.3285	2.3285
5	**4-4-2023**	**7-3-2023**	2.3290	2.3290
6	**7-4-2023**	**10-3-2023**	2.3555	2.3555
7	**10-4-2023**	**1-3-2024**	2.3788	2.3788
8	**1-4-2024**	**4-3-2024**	2.2833	2.2833

9	**4-4-2024**	**7-3-2024**	2.2598	2.2598
10	**7-4-2024**	**10-3-2024**	2.2854	2.2854
11	**10-4-2024**	**1-3-2025**	2.3069	2.3069
12	**1-4-2025**	**4-3-2025**	2.1899	2.1899
13	**4-4-2025**	**7-3-2025**	2.1923	2.1923
14	**7-4-2025**	**9-30-2025**	5.2532	5.2532
		Highest	5.2532	5.2532

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**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**

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**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**

	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**

2.3 Vegetation

Vegetation

	CO2e
Category	MT
Vegetation Land Change	-1,140.8000
Total	**-1,140.8000**

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	4/4/2022	4/15/2022	5	10	
2	Site Preparation	Site Preparation	4/16/2022	7/8/2022	5	60	
3	Grading	Grading	7/9/2022	8/19/2022	5	30	
4	Building Construction	Building Construction	8/20/2022	7/4/2025	5	750	
5	Paving	Paving	7/5/2025	9/5/2025	5	45	
6	Architectural Coating	Architectural Coating	9/6/2025	10/17/2025	5	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 183

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 5,425,305; Non-Residential Outdoor: 1,808,435; Striped Parking Area: 0 (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
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
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
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

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
Demolition		10.00	0.00	18.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation		5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading		10.00	0.00	18,553.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction		1,519.00	593.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving		18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating		304.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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					
Fugitive Dust					2.0000e-003	0.0000	2.0000e-003	3.0000e-004	0.0000	3.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0132	0.1286	0.1030	1.9000e-004		6.2100e-003	6.2100e-003		5.7800e-003	5.7800e-003	0.0000	16.9951	16.9951	4.7700e-003	0.0000	17.1145
Total	**0.0132**	**0.1286**	**0.1030**	**1.9000e-004**	**2.0000e-003**	**6.2100e-003**	**8.2100e-003**	**3.0000e-004**	**5.7800e-003**	**6.0800e-003**	**0.0000**	**16.9951**	**16.9951**	**4.7700e-003**	**0.0000**	**17.1145**

3.2 Demolition - 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	6.0000e-005	2.1100e-003	3.5000e-004	1.0000e-005	1.5000e-004	1.0000e-005	1.6000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.6674	0.6674	3.0000e-005	0.0000	0.6681
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	1.7000e-004	1.1000e-004	1.1700e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3278	0.3278	1.0000e-005	0.0000	0.3280
Total	**2.3000e-004**	**2.2200e-003**	**1.5200e-003**	**1.0000e-005**	**5.5000e-004**	**1.0000e-005**	**5.6000e-004**	**1.5000e-004**	**1.0000e-005**	**1.6000e-004**	**0.0000**	**0.9952**	**0.9952**	**4.0000e-005**	**0.0000**	**0.9961**

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					2.0000e-003	0.0000	2.0000e-003	3.0000e-004	0.0000	3.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0132	0.1286	0.1030	1.9000e-004		6.2100e-003	6.2100e-003		5.7800e-003	5.7800e-003	0.0000	16.9951	16.9951	4.7700e-003	0.0000	17.1144
Total	**0.0132**	**0.1286**	**0.1030**	**1.9000e-004**	**2.0000e-003**	**6.2100e-003**	**8.2100e-003**	**3.0000e-004**	**5.7800e-003**	**6.0800e-003**	**0.0000**	**16.9951**	**16.9951**	**4.7700e-003**	**0.0000**	**17.1144**

3.2 Demolition - 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	6.0000e-005	2.1100e-003	3.5000e-004	1.0000e-005	1.5000e-004	1.0000e-005	1.6000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.6674	0.6674	3.0000e-005	0.0000	0.6681
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	1.7000e-004	1.1000e-004	1.1700e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3278	0.3278	1.0000e-005	0.0000	0.3280
Total	**2.3000e-004**	**2.2200e-003**	**1.5200e-003**	**1.0000e-005**	**5.5000e-004**	**1.0000e-005**	**5.6000e-004**	**1.5000e-004**	**1.0000e-005**	**1.6000e-004**	**0.0000**	**0.9952**	**0.9952**	**4.0000e-005**	**0.0000**	**0.9961**

3.3 Site Preparation - 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					
Fugitive Dust					0.5420	0.0000	0.5420	0.2979	0.0000	0.2979	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0951	0.9925	0.5909	1.1400e-003		0.0484	0.0484		0.0445	0.0445	0.0000	100.3182	100.3182	0.0324	0.0000	101.1293
Total	**0.0951**	**0.9925**	**0.5909**	**1.1400e-003**	**0.5420**	**0.0484**	**0.5904**	**0.2979**	**0.0445**	**0.3424**	**0.0000**	**100.3182**	**100.3182**	**0.0324**	**0.0000**	**101.1293**

3.3 Site Preparation - 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	5.1000e-004	3.4000e-004	3.5200e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9834	0.9834	2.0000e-005	0.0000	0.9840
Total	**5.1000e-004**	**3.4000e-004**	**3.5200e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9834**	**0.9834**	**2.0000e-005**	**0.0000**	**0.9840**

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					0.5420	0.0000	0.5420	0.2979	0.0000	0.2979	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0951	0.9925	0.5909	1.1400e-003		0.0484	0.0484		0.0445	0.0445	0.0000	100.3181	100.3181	0.0324	0.0000	101.1292
Total	**0.0951**	**0.9925**	**0.5909**	**1.1400e-003**	**0.5420**	**0.0484**	**0.5904**	**0.2979**	**0.0445**	**0.3424**	**0.0000**	**100.3181**	**100.3181**	**0.0324**	**0.0000**	**101.1292**

3.3 Site Preparation - 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	5.1000e-004	3.4000e-004	3.5200e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9834	0.9834	2.0000e-005	0.0000	0.9840
Total	**5.1000e-004**	**3.4000e-004**	**3.5200e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9834**	**0.9834**	**2.0000e-005**	**0.0000**	**0.9840**

3.4 Grading - 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					
Fugitive Dust					0.1983	0.0000	0.1983	0.0618	0.0000	0.0618	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0544	0.5827	0.4356	9.3000e-004		0.0245	0.0245		0.0226	0.0226	0.0000	81.8019	81.8019	0.0265	0.0000	82.4633
Total	**0.0544**	**0.5827**	**0.4356**	**9.3000e-004**	**0.1983**	**0.0245**	**0.2228**	**0.0618**	**0.0226**	**0.0844**	**0.0000**	**81.8019**	**81.8019**	**0.0265**	**0.0000**	**82.4633**

3.4 Grading - 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	0.0656	2.1701	0.3654	7.2200e-003	0.1581	6.5400e-003	0.1646	0.0435	6.2600e-003	0.0497	0.0000	687.8673	687.8673	0.0287	0.0000	688.5841
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	5.1000e-004	3.4000e-004	3.5200e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9834	0.9834	2.0000e-005	0.0000	0.9840
Total	**0.0661**	**2.1705**	**0.3690**	**7.2300e-003**	**0.1593**	**6.5500e-003**	**0.1658**	**0.0438**	**6.2700e-003**	**0.0501**	**0.0000**	**688.8507**	**688.8507**	**0.0287**	**0.0000**	**689.5681**

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					0.1983	0.0000	0.1983	0.0618	0.0000	0.0618	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0544	0.5827	0.4356	9.3000e-004		0.0245	0.0245		0.0226	0.0226	0.0000	81.8018	81.8018	0.0265	0.0000	82.4632
Total	**0.0544**	**0.5827**	**0.4356**	**9.3000e-004**	**0.1983**	**0.0245**	**0.2228**	**0.0618**	**0.0226**	**0.0844**	**0.0000**	**81.8018**	**81.8018**	**0.0265**	**0.0000**	**82.4632**

3.4 Grading - 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	0.0656	2.1701	0.3654	7.2200e-003	0.1581	6.5400e-003	0.1646	0.0435	6.2600e-003	0.0497	0.0000	687.8673	687.8673	0.0287	0.0000	688.5841
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	5.1000e-004	3.4000e-004	3.5200e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9834	0.9834	2.0000e-005	0.0000	0.9840
Total	**0.0661**	**2.1705**	**0.3690**	**7.2300e-003**	**0.1593**	**6.5500e-003**	**0.1658**	**0.0438**	**6.2700e-003**	**0.0501**	**0.0000**	**688.8507**	**688.8507**	**0.0287**	**0.0000**	**689.5681**

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	0.0811	0.7417	0.7773	1.2800e-003		0.0384	0.0384		0.0362	0.0362	0.0000	110.0695	110.0695	0.0264	0.0000	110.7287
Total	**0.0811**	**0.7417**	**0.7773**	**1.2800e-003**		**0.0384**	**0.0384**		**0.0362**	**0.0362**	**0.0000**	**110.0695**	**110.0695**	**0.0264**	**0.0000**	**110.7287**

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	0.0867	2.8584	0.5738	7.8200e-003	0.1861	7.4300e-003	0.1935	0.0538	7.1000e-003	0.0609	0.0000	742.5400	742.5400	0.0420	0.0000	743.5910
Worker	0.2467	0.1647	1.6941	5.2300e-003	0.5747	3.6500e-003	0.5784	0.1528	3.3600e-003	0.1562	0.0000	473.0233	473.0233	0.0112	0.0000	473.3035
Total	**0.3334**	**3.0231**	**2.2679**	**0.0131**	**0.7608**	**0.0111**	**0.7719**	**0.2066**	**0.0105**	**0.2170**	**0.0000**	**1,215.5633**	**1,215.5633**	**0.0533**	**0.0000**	**1,216.8945**

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	0.0811	0.7417	0.7773	1.2800e-003		0.0384	0.0384		0.0362	0.0362	0.0000	110.0694	110.0694	0.0264	0.0000	110.7286
Total	**0.0811**	**0.7417**	**0.7773**	**1.2800e-003**		**0.0384**	**0.0384**		**0.0362**	**0.0362**	**0.0000**	**110.0694**	**110.0694**	**0.0264**	**0.0000**	**110.7286**

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	0.0867	2.8584	0.5738	7.8200e-003	0.1861	7.4300e-003	0.1935	0.0538	7.1000e-003	0.0609	0.0000	742.5400	742.5400	0.0420	0.0000	743.5910
Worker	0.2467	0.1647	1.6941	5.2300e-003	0.5747	3.6500e-003	0.5784	0.1528	3.3600e-003	0.1562	0.0000	473.0233	473.0233	0.0112	0.0000	473.3035
Total	**0.3334**	**3.0231**	**2.2679**	**0.0131**	**0.7608**	**0.0111**	**0.7719**	**0.2066**	**0.0105**	**0.2170**	**0.0000**	**1,215.5633**	**1,215.5633**	**0.0533**	**0.0000**	**1,216.8945**

3.5 Building Construction - 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	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3462**	**301.3462**	**0.0717**	**0.0000**	**303.1383**

3.5 Building Construction - 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	0.1684	6.0699	1.3227	0.0209	0.5093	6.2400e-003	0.5156	0.1472	5.9700e-003	0.1532	0.0000	1,983.1627	1,983.1627	0.0804	0.0000	1,985.1734
Worker	0.6277	0.4037	4.2256	0.0138	1.5729	9.7100e-003	1.5826	0.4182	8.9400e-003	0.4271	0.0000	1,246.4108	1,246.4108	0.0274	0.0000	1,247.0953
Total	**0.7961**	**6.4736**	**5.5483**	**0.0347**	**2.0822**	**0.0160**	**2.0982**	**0.5654**	**0.0149**	**0.5803**	**0.0000**	**3,229.5735**	**3,229.5735**	**0.1078**	**0.0000**	**3,232.2687**

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	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3458**	**301.3458**	**0.0717**	**0.0000**	**303.1380**

3.5 Building Construction - 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	0.1684	6.0699	1.3227	0.0209	0.5093	6.2400e-003	0.5156	0.1472	5.9700e-003	0.1532	0.0000	1,983.1627	1,983.1627	0.0804	0.0000	1,985.1734
Worker	0.6277	0.4037	4.2256	0.0138	1.5729	9.7100e-003	1.5826	0.4182	8.9400e-003	0.4271	0.0000	1,246.4108	1,246.4108	0.0274	0.0000	1,247.0953
Total	**0.7961**	**6.4736**	**5.5483**	**0.0347**	**2.0822**	**0.0160**	**2.0982**	**0.5654**	**0.0149**	**0.5803**	**0.0000**	**3,229.5735**	**3,229.5735**	**0.1078**	**0.0000**	**3,232.2687**

3.5 Building Construction - 2024

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	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7223**	**303.7223**	**0.0718**	**0.0000**	**305.5179**

3.5 Building Construction - 2024

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	0.1640	6.0625	1.2596	0.0209	0.5132	6.2000e-003	0.5194	0.1483	5.9300e-003	0.1543	0.0000	1,983.5878	1,983.5878	0.0800	0.0000	1,985.5872
Worker	0.5906	0.3654	3.9236	0.0133	1.5850	9.5100e-003	1.5945	0.4214	8.7500e-003	0.4302	0.0000	1,202.0210	1,202.0210	0.0247	0.0000	1,202.6381
Total	**0.7545**	**6.4278**	**5.1832**	**0.0342**	**2.0983**	**0.0157**	**2.1140**	**0.5697**	**0.0147**	**0.5844**	**0.0000**	**3,185.6088**	**3,185.6088**	**0.1047**	**0.0000**	**3,188.2253**

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	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7220**	**303.7220**	**0.0718**	**0.0000**	**305.5175**

3.5 Building Construction - 2024

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	0.1640	6.0625	1.2596	0.0209	0.5132	6.2000e-003	0.5194	0.1483	5.9300e-003	0.1543	0.0000	1,983.5878	1,983.5878	0.0800	0.0000	1,985.5872
Worker	0.5906	0.3654	3.9236	0.0133	1.5850	9.5100e-003	1.5945	0.4214	8.7500e-003	0.4302	0.0000	1,202.0210	1,202.0210	0.0247	0.0000	1,202.6381
Total	**0.7545**	**6.4278**	**5.1832**	**0.0342**	**2.0983**	**0.0157**	**2.1140**	**0.5697**	**0.0147**	**0.5844**	**0.0000**	**3,185.6088**	**3,185.6088**	**0.1047**	**0.0000**	**3,188.2253**

3.5 Building Construction - 2025

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	0.0909	0.8292	1.0696	1.7900e-003		0.0351	0.0351		0.0330	0.0330	0.0000	154.2264	154.2264	0.0363	0.0000	155.1328
Total	**0.0909**	**0.8292**	**1.0696**	**1.7900e-003**		**0.0351**	**0.0351**		**0.0330**	**0.0330**	**0.0000**	**154.2264**	**154.2264**	**0.0363**	**0.0000**	**155.1328**

3.5 Building Construction - 2025

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	0.0809	3.0491	0.6105	0.0105	0.2605	3.1100e-003	0.2636	0.0753	2.9700e-003	0.0783	0.0000	999.9087	999.9087	0.0400	0.0000	1,000.9095
Worker	0.2815	0.1679	1.8362	6.4800e-003	0.8046	4.7300e-003	0.8093	0.2139	4.3500e-003	0.2183	0.0000	586.0425	586.0425	0.0113	0.0000	586.3256
Total	**0.3623**	**3.2170**	**2.4467**	**0.0170**	**1.0652**	**7.8400e-003**	**1.0730**	**0.2892**	**7.3200e-003**	**0.2965**	**0.0000**	**1,585.9512**	**1,585.9512**	**0.0514**	**0.0000**	**1,587.2351**

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	0.0909	0.8292	1.0696	1.7900e-003		0.0351	0.0351		0.0330	0.0330	0.0000	154.2263	154.2263	0.0363	0.0000	155.1326
Total	**0.0909**	**0.8292**	**1.0696**	**1.7900e-003**		**0.0351**	**0.0351**		**0.0330**	**0.0330**	**0.0000**	**154.2263**	**154.2263**	**0.0363**	**0.0000**	**155.1326**

3.5 Building Construction - 2025

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	0.0809	3.0491	0.6105	0.0105	0.2605	3.1100e-003	0.2636	0.0753	2.9700e-003	0.0783	0.0000	999.9087	999.9087	0.0400	0.0000	1,000.9095
Worker	0.2815	0.1679	1.8362	6.4800e-003	0.8046	4.7300e-003	0.8093	0.2139	4.3500e-003	0.2183	0.0000	586.0425	586.0425	0.0113	0.0000	586.3256
Total	**0.3623**	**3.2170**	**2.4467**	**0.0170**	**1.0652**	**7.8400e-003**	**1.0730**	**0.2892**	**7.3200e-003**	**0.2965**	**0.0000**	**1,585.9512**	**1,585.9512**	**0.0514**	**0.0000**	**1,587.2351**

3.6 Paving - 2025

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	0.0206	0.1931	0.3280	5.1000e-004		9.4200e-003	9.4200e-003		8.6600e-003	8.6600e-003	0.0000	45.0433	45.0433	0.0146	0.0000	45.4075
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0206**	**0.1931**	**0.3280**	**5.1000e-004**		**9.4200e-003**	**9.4200e-003**		**8.6600e-003**	**8.6600e-003**	**0.0000**	**45.0433**	**45.0433**	**0.0146**	**0.0000**	**45.4075**

3.6 Paving - 2025

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	1.1300e-003	6.7000e-004	7.3600e-003	3.0000e-005	3.2300e-003	2.0000e-005	3.2400e-003	8.6000e-004	2.0000e-005	8.8000e-004	0.0000	2.3497	2.3497	5.0000e-005	0.0000	2.3508
Total	**1.1300e-003**	**6.7000e-004**	**7.3600e-003**	**3.0000e-005**	**3.2300e-003**	**2.0000e-005**	**3.2400e-003**	**8.6000e-004**	**2.0000e-005**	**8.8000e-004**	**0.0000**	**2.3497**	**2.3497**	**5.0000e-005**	**0.0000**	**2.3508**

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	0.0206	0.1931	0.3280	5.1000e-004		9.4200e-003	9.4200e-003		8.6600e-003	8.6600e-003	0.0000	45.0433	45.0433	0.0146	0.0000	45.4075
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0206**	**0.1931**	**0.3280**	**5.1000e-004**		**9.4200e-003**	**9.4200e-003**		**8.6600e-003**	**8.6600e-003**	**0.0000**	**45.0433**	**45.0433**	**0.0146**	**0.0000**	**45.4075**

3.6 Paving - 2025

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	1.1300e-003	6.7000e-004	7.3600e-003	3.0000e-005	3.2300e-003	2.0000e-005	3.2400e-003	8.6000e-004	2.0000e-005	8.8000e-004	0.0000	2.3497	2.3497	5.0000e-005	0.0000	2.3508
Total	**1.1300e-003**	**6.7000e-004**	**7.3600e-003**	**3.0000e-005**	**3.2300e-003**	**2.0000e-005**	**3.2400e-003**	**8.6000e-004**	**2.0000e-005**	**8.8000e-004**	**0.0000**	**2.3497**	**2.3497**	**5.0000e-005**	**0.0000**	**2.3508**

3.7 Architectural Coating - 2025

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	8.3821					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5600e-003	0.0172	0.0271	4.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004	0.0000	3.8299	3.8299	2.1000e-004	0.0000	3.8351
Total	**8.3847**	**0.0172**	**0.0271**	**4.0000e-005**		**7.7000e-004**	**7.7000e-004**		**7.7000e-004**	**7.7000e-004**	**0.0000**	**3.8299**	**3.8299**	**2.1000e-004**	**0.0000**	**3.8351**

3.7 Architectural Coating - 2025

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	0.0127	7.5800e-003	0.0829	2.9000e-004	0.0363	2.1000e-004	0.0365	9.6600e-003	2.0000e-004	9.8500e-003	0.0000	26.4554	26.4554	5.1000e-004	0.0000	26.4682
Total	**0.0127**	**7.5800e-003**	**0.0829**	**2.9000e-004**	**0.0363**	**2.1000e-004**	**0.0365**	**9.6600e-003**	**2.0000e-004**	**9.8500e-003**	**0.0000**	**26.4554**	**26.4554**	**5.1000e-004**	**0.0000**	**26.4682**

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	8.3821					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5600e-003	0.0172	0.0271	4.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004	0.0000	3.8299	3.8299	2.1000e-004	0.0000	3.8351
Total	**8.3847**	**0.0172**	**0.0271**	**4.0000e-005**		**7.7000e-004**	**7.7000e-004**		**7.7000e-004**	**7.7000e-004**	**0.0000**	**3.8299**	**3.8299**	**2.1000e-004**	**0.0000**	**3.8351**

3.7 Architectural Coating - 2025

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	0.0127	7.5800e-003	0.0829	2.9000e-004	0.0363	2.1000e-004	0.0365	9.6600e-003	2.0000e-004	9.8500e-003	0.0000	26.4554	26.4554	5.1000e-004	0.0000	26.4682
Total	**0.0127**	**7.5800e-003**	**0.0829**	**2.9000e-004**	**0.0363**	**2.1000e-004**	**0.0365**	**9.6600e-003**	**2.0000e-004**	**9.8500e-003**	**0.0000**	**26.4554**	**26.4554**	**5.1000e-004**	**0.0000**	**26.4682**

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	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
Unmitigated	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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.572580	0.033245	0.188169	0.107110	0.013644	0.004172	0.015876	0.056665	0.001183	0.001302	0.004809	0.000595	0.000651

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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	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
NaturalGas Unmitigated	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

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					
Unrefrigerated Warehouse-No Rail	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
Total		**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**

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					
Unrefrigerated Warehouse-No Rail	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
Total		**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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	-1,140.8000	0.0000	0.0000	-1,140.8000

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Cropland	184 / 0	-1,140.8000	0.0000	0.0000	-1,140.8000
Total		**-1,140.8000**	**0.0000**	**0.0000**	**-1,140.8000**

Mariposa Industrial Park

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	3,616.87	1000sqft	83.03	3,616,870.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2026
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

Mobile Commute Mitigation - Entered by CalEEMod.

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	150	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	150	0
tblConstructionPhase	NumDays	110.00	30.00
tblConstructionPhase	NumDays	1,550.00	750.00

tblConstructionPhase	NumDays	100.00	10.00
tblConstructionPhase	NumDays	155.00	30.00
tblConstructionPhase	NumDays	110.00	45.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00

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					
2022	0.4413	4.0425	3.2462	0.0156	0.9984	0.0498	1.0482	0.2459	0.0463	0.2922	0.0000	1,443.5945	1,443.5945	0.0876	0.0000	1,445.7855
2023	0.8778	7.3026	6.4684	0.0361	2.0822	0.0574	2.1396	0.5654	0.0530	0.6184	0.0000	3,359.1312	3,359.1312	0.1497	0.0000	3,362.8740
2024	5.3181	7.2769	6.2491	0.0360	2.1192	0.0557	2.1750	0.5753	0.0516	0.6269	0.0000	3,344.3249	3,344.3249	0.1503	0.0000	3,348.0825
2025	4.2945	3.3780	2.8286	0.0167	1.0037	0.0250	1.0286	0.2724	0.0231	0.2955	0.0000	1,554.0366	1,554.0366	0.0708	0.0000	1,555.8063
Maximum	**5.3181**	**7.3026**	**6.4684**	**0.0361**	**2.1192**	**0.0574**	**2.1750**	**0.5753**	**0.0530**	**0.6269**	**0.0000**	**3,359.1312**	**3,359.1312**	**0.1503**	**0.0000**	**3,362.8740**

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					
2022	0.4413	4.0425	3.2462	0.0156	0.9133	0.0498	0.9631	0.2366	0.0463	0.2829	0.0000	1,443.5944	1,443.5944	0.0876	0.0000	1,445.7854
2023	0.8778	7.3026	6.4684	0.0361	2.0822	0.0574	2.1396	0.5654	0.0530	0.6184	0.0000	3,359.1311	3,359.1311	0.1497	0.0000	3,362.8738
2024	5.3181	7.2648	6.2491	0.0360	2.1192	0.0557	2.1750	0.5753	0.0516	0.6269	0.0000	3,344.3247	3,344.3247	0.1503	0.0000	3,348.0823
2025	4.2945	3.3653	2.8286	0.0167	1.0037	0.0250	1.0286	0.2724	0.0231	0.2955	0.0000	1,554.0365	1,554.0365	0.0708	0.0000	1,555.8062
Maximum	**5.3181**	**7.3026**	**6.4684**	**0.0361**	**2.1192**	**0.0574**	**2.1750**	**0.5753**	**0.0530**	**0.6269**	**0.0000**	**3,359.1311**	**3,359.1311**	**0.1503**	**0.0000**	**3,362.8738**

	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**	**0.11**	**0.00**	**0.00**	**1.37**	**0.00**	**1.33**	**0.56**	**0.00**	**0.50**	**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	**4-4-2022**	**7-3-2022**	0.2767	0.2767
2	**7-4-2022**	**10-3-2022**	1.7256	1.7256
3	**10-4-2022**	**1-3-2023**	2.5779	2.5779
4	**1-4-2023**	**4-3-2023**	2.0408	2.0408
5	**4-4-2023**	**7-3-2023**	2.0381	2.0381
6	**7-4-2023**	**10-3-2023**	2.0613	2.0613
7	**10-4-2023**	**1-3-2024**	2.0853	2.0853
8	**1-4-2024**	**4-3-2024**	2.0107	2.0107

9	**4-4-2024**	**7-3-2024**	1.9872	1.9872
10	**7-4-2024**	**10-3-2024**	2.0098	2.0098
11	**10-4-2024**	**1-3-2025**	7.1163	7.1033
12	**1-4-2025**	**4-3-2025**	5.4026	5.3916
13	**4-4-2025**	**7-3-2025**	1.6607	1.6607
		Highest	7.1163	7.1033

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	5.7919	3.0000e-004	0.0332	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	0.0646	0.0646	1.7000e-004	0.0000	0.0688
Energy	0.1192	1.0833	0.9100	6.5000e-003		0.0823	0.0823		0.0823	0.0823	0.0000	6,019.3600	6,019.3600	0.2415	0.0669	6,045.3328
Mobile	3.0410	23.4291	36.7661	0.2305	16.1178	0.2163	16.3341	4.3503	0.2051	4.5554	0.0000	21,470.6420	21,470.6420	0.7284	0.0000	21,488.8509
Waste						0.0000	0.0000		0.0000	0.0000	690.1409	0.0000	690.1409	40.7862	0.0000	1,709.7948
Water						0.0000	0.0000		0.0000	0.0000	265.3515	1,316.5975	1,581.9490	27.3137	0.6559	2,460.2332
Total	**8.9520**	**24.5127**	**37.7092**	**0.2370**	**16.1178**	**0.2988**	**16.4166**	**4.3503**	**0.2875**	**4.6378**	**955.4924**	**28,806.6641**	**29,762.1565**	**69.0698**	**0.7228**	**31,704.2804**

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	5.7919	3.0000e-004	0.0332	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	0.0646	0.0646	1.7000e-004	0.0000	0.0688
Energy	0.1192	1.0833	0.9100	6.5000e-003		0.0823	0.0823		0.0823	0.0823	0.0000	6,019.3600	6,019.3600	0.2415	0.0669	6,045.3328
Mobile	2.8449	20.9490	32.7617	0.2029	13.9462	0.1882	14.1344	3.7642	0.1784	3.9425	0.0000	18,897.0461	18,897.0461	0.6814	0.0000	18,914.0819
Waste						0.0000	0.0000		0.0000	0.0000	172.5352	0.0000	172.5352	10.1965	0.0000	427.4487
Water						0.0000	0.0000		0.0000	0.0000	212.2812	1,053.2780	1,265.5592	21.8509	0.5247	1,968.1865
Total	**8.7559**	**22.0326**	**33.7048**	**0.2094**	**13.9462**	**0.2706**	**14.2168**	**3.7642**	**0.2608**	**4.0250**	**384.8164**	**25,969.7487**	**26,354.5651**	**32.9705**	**0.5916**	**27,355.1188**

	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	**2.19**	**10.12**	**10.62**	**11.68**	**13.47**	**9.43**	**13.40**	**13.47**	**9.29**	**13.21**	**59.73**	**9.85**	**11.45**	**52.26**	**18.15**	**13.72**

2.3 Vegetation

Vegetation

	CO2e
Category	MT
Vegetation Land Change	-961.0000
Total	**-961.0000**

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	4/4/2022	4/15/2022	5	10	
2	Site Preparation	Site Preparation	4/4/2022	6/24/2022	5	60	
3	Grading	Grading	6/25/2022	8/5/2022	5	30	
4	Building Construction	Building Construction	8/6/2022	6/20/2025	5	750	
5	Paving	Paving	12/2/2024	1/31/2025	5	45	
6	Architectural Coating	Architectural Coating	12/10/2024	1/20/2025	5	30	

Acres of Grading (Site Preparation Phase): 203

Acres of Grading (Grading Phase): 85

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 5,425,305; Non-Residential Outdoor: 1,808,435; Striped Parking Area: 0 (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
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	174	0.41
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	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	304.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	1,519.00	593.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 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					
Fugitive Dust					2.0000e-003	0.0000	2.0000e-003	3.0000e-004	0.0000	3.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5600e-003	0.0320	0.0395	6.0000e-005		1.6700e-003	1.6700e-003		1.6000e-003	1.6000e-003	0.0000	5.2268	5.2268	9.7000e-004	0.0000	5.2510
Total	**3.5600e-003**	**0.0320**	**0.0395**	**6.0000e-005**	**2.0000e-003**	**1.6700e-003**	**3.6700e-003**	**3.0000e-004**	**1.6000e-003**	**1.9000e-003**	**0.0000**	**5.2268**	**5.2268**	**9.7000e-004**	**0.0000**	**5.2510**

3.2 Demolition - 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	1.7000e-004	1.1000e-004	1.1700e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3278	0.3278	1.0000e-005	0.0000	0.3280
Total	**1.7000e-004**	**1.1000e-004**	**1.1700e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3278**	**0.3278**	**1.0000e-005**	**0.0000**	**0.3280**

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					9.0000e-004	0.0000	9.0000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5600e-003	0.0320	0.0395	6.0000e-005		1.6700e-003	1.6700e-003		1.6000e-003	1.6000e-003	0.0000	5.2268	5.2268	9.7000e-004	0.0000	5.2510
Total	**3.5600e-003**	**0.0320**	**0.0395**	**6.0000e-005**	**9.0000e-004**	**1.6700e-003**	**2.5700e-003**	**1.4000e-004**	**1.6000e-003**	**1.7400e-003**	**0.0000**	**5.2268**	**5.2268**	**9.7000e-004**	**0.0000**	**5.2510**

3.2 Demolition - 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	1.7000e-004	1.1000e-004	1.1700e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3278	0.3278	1.0000e-005	0.0000	0.3280
Total	**1.7000e-004**	**1.1000e-004**	**1.1700e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3278**	**0.3278**	**1.0000e-005**	**0.0000**	**0.3280**

3.3 Site Preparation - 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					
Fugitive Dust					0.1076	0.0000	0.1076	0.0116	0.0000	0.0116	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0216	0.2060	0.1990	2.8000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	24.5860	24.5860	7.9500e-003	0.0000	24.7848
Total	**0.0216**	**0.2060**	**0.1990**	**2.8000e-004**	**0.1076**	**0.0114**	**0.1190**	**0.0116**	**0.0105**	**0.0221**	**0.0000**	**24.5860**	**24.5860**	**7.9500e-003**	**0.0000**	**24.7848**

3.3 Site Preparation - 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	5.1000e-004	3.4000e-004	3.5200e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9834	0.9834	2.0000e-005	0.0000	0.9840
Total	**5.1000e-004**	**3.4000e-004**	**3.5200e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9834**	**0.9834**	**2.0000e-005**	**0.0000**	**0.9840**

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					0.0484	0.0000	0.0484	5.2300e-003	0.0000	5.2300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0216	0.2060	0.1990	2.8000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	24.5860	24.5860	7.9500e-003	0.0000	24.7848
Total	**0.0216**	**0.2060**	**0.1990**	**2.8000e-004**	**0.0484**	**0.0114**	**0.0598**	**5.2300e-003**	**0.0105**	**0.0157**	**0.0000**	**24.5860**	**24.5860**	**7.9500e-003**	**0.0000**	**24.7848**

3.3 Site Preparation - 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	5.1000e-004	3.4000e-004	3.5200e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9834	0.9834	2.0000e-005	0.0000	0.9840
Total	**5.1000e-004**	**3.4000e-004**	**3.5200e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9834**	**0.9834**	**2.0000e-005**	**0.0000**	**0.9840**

3.4 Grading - 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					
Fugitive Dust					0.0451	0.0000	0.0451	4.8700e-003	0.0000	4.8700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0107	0.0959	0.1185	1.8000e-004		5.0200e-003	5.0200e-003		4.8000e-003	4.8000e-003	0.0000	15.6803	15.6803	2.9000e-003	0.0000	15.7529
Total	**0.0107**	**0.0959**	**0.1185**	**1.8000e-004**	**0.0451**	**5.0200e-003**	**0.0501**	**4.8700e-003**	**4.8000e-003**	**9.6700e-003**	**0.0000**	**15.6803**	**15.6803**	**2.9000e-003**	**0.0000**	**15.7529**

3.4 Grading - 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	5.1000e-004	3.4000e-004	3.5200e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9834	0.9834	2.0000e-005	0.0000	0.9840
Total	**5.1000e-004**	**3.4000e-004**	**3.5200e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9834**	**0.9834**	**2.0000e-005**	**0.0000**	**0.9840**

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					0.0203	0.0000	0.0203	2.1900e-003	0.0000	2.1900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0107	0.0959	0.1185	1.8000e-004		5.0200e-003	5.0200e-003		4.8000e-003	4.8000e-003	0.0000	15.6803	15.6803	2.9000e-003	0.0000	15.7529
Total	**0.0107**	**0.0959**	**0.1185**	**1.8000e-004**	**0.0203**	**5.0200e-003**	**0.0253**	**2.1900e-003**	**4.8000e-003**	**6.9900e-003**	**0.0000**	**15.6803**	**15.6803**	**2.9000e-003**	**0.0000**	**15.7529**

3.4 Grading - 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	5.1000e-004	3.4000e-004	3.5200e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9834	0.9834	2.0000e-005	0.0000	0.9840
Total	**5.1000e-004**	**3.4000e-004**	**3.5200e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9834**	**0.9834**	**2.0000e-005**	**0.0000**	**0.9840**

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	0.0358	0.3665	0.3744	6.0000e-004		0.0194	0.0194		0.0179	0.0179	0.0000	52.2895	52.2895	0.0169	0.0000	52.7123
Total	**0.0358**	**0.3665**	**0.3744**	**6.0000e-004**		**0.0194**	**0.0194**		**0.0179**	**0.0179**	**0.0000**	**52.2895**	**52.2895**	**0.0169**	**0.0000**	**52.7123**

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	0.0958	3.1593	0.6342	8.6400e-003	0.2057	8.2100e-003	0.2139	0.0594	7.8500e-003	0.0673	0.0000	820.7021	820.7021	0.0465	0.0000	821.8638
Worker	0.2726	0.1820	1.8724	5.7800e-003	0.6352	4.0400e-003	0.6393	0.1689	3.7200e-003	0.1726	0.0000	522.8153	522.8153	0.0124	0.0000	523.1249
Total	**0.3685**	**3.3413**	**2.5067**	**0.0144**	**0.8409**	**0.0123**	**0.8532**	**0.2283**	**0.0116**	**0.2399**	**0.0000**	**1,343.5173**	**1,343.5173**	**0.0589**	**0.0000**	**1,344.9886**

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	0.0358	0.3665	0.3744	6.0000e-004		0.0194	0.0194		0.0179	0.0179	0.0000	52.2894	52.2894	0.0169	0.0000	52.7122
Total	**0.0358**	**0.3665**	**0.3744**	**6.0000e-004**		**0.0194**	**0.0194**		**0.0179**	**0.0179**	**0.0000**	**52.2894**	**52.2894**	**0.0169**	**0.0000**	**52.7122**

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	0.0958	3.1593	0.6342	8.6400e-003	0.2057	8.2100e-003	0.2139	0.0594	7.8500e-003	0.0673	0.0000	820.7021	820.7021	0.0465	0.0000	821.8638
Worker	0.2726	0.1820	1.8724	5.7800e-003	0.6352	4.0400e-003	0.6393	0.1689	3.7200e-003	0.1726	0.0000	522.8153	522.8153	0.0124	0.0000	523.1249
Total	**0.3685**	**3.3413**	**2.5067**	**0.0144**	**0.8409**	**0.0123**	**0.8532**	**0.2283**	**0.0116**	**0.2399**	**0.0000**	**1,343.5173**	**1,343.5173**	**0.0589**	**0.0000**	**1,344.9886**

3.5 Building Construction - 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	0.0817	0.8291	0.9200	1.4700e-003		0.0414	0.0414		0.0381	0.0381	0.0000	129.5577	129.5577	0.0419	0.0000	130.6053
Total	**0.0817**	**0.8291**	**0.9200**	**1.4700e-003**		**0.0414**	**0.0414**		**0.0381**	**0.0381**	**0.0000**	**129.5577**	**129.5577**	**0.0419**	**0.0000**	**130.6053**

3.5 Building Construction - 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	0.1684	6.0699	1.3227	0.0209	0.5093	6.2400e-003	0.5156	0.1472	5.9700e-003	0.1532	0.0000	1,983.1627	1,983.1627	0.0804	0.0000	1,985.1734
Worker	0.6277	0.4037	4.2256	0.0138	1.5729	9.7100e-003	1.5826	0.4182	8.9400e-003	0.4271	0.0000	1,246.4108	1,246.4108	0.0274	0.0000	1,247.0953
Total	**0.7961**	**6.4736**	**5.5483**	**0.0347**	**2.0822**	**0.0160**	**2.0982**	**0.5654**	**0.0149**	**0.5803**	**0.0000**	**3,229.5735**	**3,229.5735**	**0.1078**	**0.0000**	**3,232.2687**

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	0.0817	0.8291	0.9200	1.4700e-003		0.0414	0.0414		0.0381	0.0381	0.0000	129.5576	129.5576	0.0419	0.0000	130.6051
Total	**0.0817**	**0.8291**	**0.9200**	**1.4700e-003**		**0.0414**	**0.0414**		**0.0381**	**0.0381**	**0.0000**	**129.5576**	**129.5576**	**0.0419**	**0.0000**	**130.6051**

3.5 Building Construction - 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	0.1684	6.0699	1.3227	0.0209	0.5093	6.2400e-003	0.5156	0.1472	5.9700e-003	0.1532	0.0000	1,983.1627	1,983.1627	0.0804	0.0000	1,985.1734
Worker	0.6277	0.4037	4.2256	0.0138	1.5729	9.7100e-003	1.5826	0.4182	8.9400e-003	0.4271	0.0000	1,246.4108	1,246.4108	0.0274	0.0000	1,247.0953
Total	**0.7961**	**6.4736**	**5.5483**	**0.0347**	**2.0822**	**0.0160**	**2.0982**	**0.5654**	**0.0149**	**0.5803**	**0.0000**	**3,229.5735**	**3,229.5735**	**0.1078**	**0.0000**	**3,232.2687**

3.5 Building Construction - 2024

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	0.0775	0.7776	0.9233	1.4900e-003		0.0368	0.0368		0.0338	0.0338	0.0000	130.5988	130.5988	0.0422	0.0000	131.6548
Total	**0.0775**	**0.7776**	**0.9233**	**1.4900e-003**		**0.0368**	**0.0368**		**0.0338**	**0.0338**	**0.0000**	**130.5988**	**130.5988**	**0.0422**	**0.0000**	**131.6548**

3.5 Building Construction - 2024

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	0.1640	6.0625	1.2596	0.0209	0.5132	6.2000e-003	0.5194	0.1483	5.9300e-003	0.1543	0.0000	1,983.5878	1,983.5878	0.0800	0.0000	1,985.5872
Worker	0.5906	0.3654	3.9236	0.0133	1.5850	9.5100e-003	1.5945	0.4214	8.7500e-003	0.4302	0.0000	1,202.0210	1,202.0210	0.0247	0.0000	1,202.6381
Total	**0.7545**	**6.4278**	**5.1832**	**0.0342**	**2.0983**	**0.0157**	**2.1140**	**0.5697**	**0.0147**	**0.5844**	**0.0000**	**3,185.6088**	**3,185.6088**	**0.1047**	**0.0000**	**3,188.2253**

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	0.0775	0.7776	0.9233	1.4900e-003		0.0368	0.0368		0.0338	0.0338	0.0000	130.5987	130.5987	0.0422	0.0000	131.6546
Total	**0.0775**	**0.7776**	**0.9233**	**1.4900e-003**		**0.0368**	**0.0368**		**0.0338**	**0.0338**	**0.0000**	**130.5987**	**130.5987**	**0.0422**	**0.0000**	**131.6546**

3.5 Building Construction - 2024

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	0.1640	6.0625	1.2596	0.0209	0.5132	6.2000e-003	0.5194	0.1483	5.9300e-003	0.1543	0.0000	1,983.5878	1,983.5878	0.0800	0.0000	1,985.5872
Worker	0.5906	0.3654	3.9236	0.0133	1.5850	9.5100e-003	1.5945	0.4214	8.7500e-003	0.4302	0.0000	1,202.0210	1,202.0210	0.0247	0.0000	1,202.6381
Total	**0.7545**	**6.4278**	**5.1832**	**0.0342**	**2.0983**	**0.0157**	**2.1140**	**0.5697**	**0.0147**	**0.5844**	**0.0000**	**3,185.6088**	**3,185.6088**	**0.1047**	**0.0000**	**3,188.2253**

3.5 Building Construction - 2025

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	0.0337	0.3350	0.4311	7.0000e-004		0.0148	0.0148		0.0136	0.0136	0.0000	61.3444	61.3444	0.0198	0.0000	61.8405
Total	**0.0337**	**0.3350**	**0.4311**	**7.0000e-004**		**0.0148**	**0.0148**		**0.0136**	**0.0136**	**0.0000**	**61.3444**	**61.3444**	**0.0198**	**0.0000**	**61.8405**

3.5 Building Construction - 2025

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	0.0748	2.8198	0.5646	9.7300e-003	0.2410	2.8700e-003	0.2438	0.0696	2.7500e-003	0.0724	0.0000	924.7276	924.7276	0.0370	0.0000	925.6532
Worker	0.2603	0.1553	1.6981	5.9900e-003	0.7441	4.3700e-003	0.7485	0.1978	4.0200e-003	0.2019	0.0000	541.9792	541.9792	0.0105	0.0000	542.2409
Total	**0.3351**	**2.9751**	**2.2627**	**0.0157**	**0.9851**	**7.2400e-003**	**0.9923**	**0.2675**	**6.7700e-003**	**0.2742**	**0.0000**	**1,466.7068**	**1,466.7068**	**0.0475**	**0.0000**	**1,467.8941**

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	0.0337	0.3350	0.4311	7.0000e-004		0.0148	0.0148		0.0136	0.0136	0.0000	61.3444	61.3444	0.0198	0.0000	61.8404
Total	**0.0337**	**0.3350**	**0.4311**	**7.0000e-004**		**0.0148**	**0.0148**		**0.0136**	**0.0136**	**0.0000**	**61.3444**	**61.3444**	**0.0198**	**0.0000**	**61.8404**

3.5 Building Construction - 2025

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	0.0748	2.8198	0.5646	9.7300e-003	0.2410	2.8700e-003	0.2438	0.0696	2.7500e-003	0.0724	0.0000	924.7276	924.7276	0.0370	0.0000	925.6532
Worker	0.2603	0.1553	1.6981	5.9900e-003	0.7441	4.3700e-003	0.7485	0.1978	4.0200e-003	0.2019	0.0000	541.9792	541.9792	0.0105	0.0000	542.2409
Total	**0.3351**	**2.9751**	**2.2627**	**0.0157**	**0.9851**	**7.2400e-003**	**0.9923**	**0.2675**	**6.7700e-003**	**0.2742**	**0.0000**	**1,466.7068**	**1,466.7068**	**0.0475**	**0.0000**	**1,467.8941**

3.6 Paving - 2024

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	6.4300e-003	0.0569	0.0763	1.2000e-004		2.6400e-003	2.6400e-003		2.4700e-003	2.4700e-003	0.0000	10.1878	10.1878	2.9600e-003	0.0000	10.2619
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.4300e-003**	**0.0569**	**0.0763**	**1.2000e-004**		**2.6400e-003**	**2.6400e-003**		**2.4700e-003**	**2.4700e-003**	**0.0000**	**10.1878**	**10.1878**	**2.9600e-003**	**0.0000**	**10.2619**

3.6 Paving - 2024

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	5.9000e-004	3.6000e-004	3.9000e-003	1.0000e-005	1.5800e-003	1.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.1961	1.1961	2.0000e-005	0.0000	1.1967
Total	**5.9000e-004**	**3.6000e-004**	**3.9000e-003**	**1.0000e-005**	**1.5800e-003**	**1.0000e-005**	**1.5900e-003**	**4.2000e-004**	**1.0000e-005**	**4.3000e-004**	**0.0000**	**1.1961**	**1.1961**	**2.0000e-005**	**0.0000**	**1.1967**

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	6.4300e-003	0.0447	0.0763	1.2000e-004		2.6400e-003	2.6400e-003		2.4700e-003	2.4700e-003	0.0000	10.1878	10.1878	2.9600e-003	0.0000	10.2619
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.4300e-003**	**0.0447**	**0.0763**	**1.2000e-004**		**2.6400e-003**	**2.6400e-003**		**2.4700e-003**	**2.4700e-003**	**0.0000**	**10.1878**	**10.1878**	**2.9600e-003**	**0.0000**	**10.2619**

3.6 Paving - 2024

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	5.9000e-004	3.6000e-004	3.9000e-003	1.0000e-005	1.5800e-003	1.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.1961	1.1961	2.0000e-005	0.0000	1.1967
Total	**5.9000e-004**	**3.6000e-004**	**3.9000e-003**	**1.0000e-005**	**1.5800e-003**	**1.0000e-005**	**1.5900e-003**	**4.2000e-004**	**1.0000e-005**	**4.3000e-004**	**0.0000**	**1.1961**	**1.1961**	**2.0000e-005**	**0.0000**	**1.1967**

3.6 Paving - 2025

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	6.4200e-003	0.0560	0.0797	1.3000e-004		2.4900e-003	2.4900e-003		2.3300e-003	2.3300e-003	0.0000	10.6513	10.6513	3.1000e-003	0.0000	10.7287
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.4200e-003**	**0.0560**	**0.0797**	**1.3000e-004**		**2.4900e-003**	**2.4900e-003**		**2.3300e-003**	**2.3300e-003**	**0.0000**	**10.6513**	**10.6513**	**3.1000e-003**	**0.0000**	**10.7287**

3.6 Paving - 2025

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	5.8000e-004	3.4000e-004	3.7600e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.2009	1.2009	2.0000e-005	0.0000	1.2015
Total	**5.8000e-004**	**3.4000e-004**	**3.7600e-003**	**1.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.2009**	**1.2009**	**2.0000e-005**	**0.0000**	**1.2015**

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	6.4200e-003	0.0433	0.0797	1.3000e-004		2.4900e-003	2.4900e-003		2.3300e-003	2.3300e-003	0.0000	10.6513	10.6513	3.1000e-003	0.0000	10.7287
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.4200e-003**	**0.0433**	**0.0797**	**1.3000e-004**		**2.4900e-003**	**2.4900e-003**		**2.3300e-003**	**2.3300e-003**	**0.0000**	**10.6513**	**10.6513**	**3.1000e-003**	**0.0000**	**10.7287**

3.6 Paving - 2025

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	5.8000e-004	3.4000e-004	3.7600e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.2009	1.2009	2.0000e-005	0.0000	1.2015
Total	**5.8000e-004**	**3.4000e-004**	**3.7600e-003**	**1.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.2009**	**1.2009**	**2.0000e-005**	**0.0000**	**1.2015**

3.7 Architectural Coating - 2024

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	4.4705					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4500e-003	9.7500e-003	0.0145	2.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	2.0426	2.0426	1.2000e-004	0.0000	2.0455
Total	**4.4719**	**9.7500e-003**	**0.0145**	**2.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**2.0426**	**2.0426**	**1.2000e-004**	**0.0000**	**2.0455**

3.7 Architectural Coating - 2024

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	7.2200e-003	4.4700e-003	0.0480	1.6000e-004	0.0194	1.2000e-004	0.0195	5.1500e-003	1.1000e-004	5.2600e-003	0.0000	14.6908	14.6908	3.0000e-004	0.0000	14.6984
Total	**7.2200e-003**	**4.4700e-003**	**0.0480**	**1.6000e-004**	**0.0194**	**1.2000e-004**	**0.0195**	**5.1500e-003**	**1.1000e-004**	**5.2600e-003**	**0.0000**	**14.6908**	**14.6908**	**3.0000e-004**	**0.0000**	**14.6984**

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	4.4705					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4500e-003	9.7500e-003	0.0145	2.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	2.0426	2.0426	1.2000e-004	0.0000	2.0455
Total	**4.4719**	**9.7500e-003**	**0.0145**	**2.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**2.0426**	**2.0426**	**1.2000e-004**	**0.0000**	**2.0455**

3.7 Architectural Coating - 2024

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	7.2200e-003	4.4700e-003	0.0480	1.6000e-004	0.0194	1.2000e-004	0.0195	5.1500e-003	1.1000e-004	5.2600e-003	0.0000	14.6908	14.6908	3.0000e-004	0.0000	14.6984
Total	**7.2200e-003**	**4.4700e-003**	**0.0480**	**1.6000e-004**	**0.0194**	**1.2000e-004**	**0.0195**	**5.1500e-003**	**1.1000e-004**	**5.2600e-003**	**0.0000**	**14.6908**	**14.6908**	**3.0000e-004**	**0.0000**	**14.6984**

3.7 Architectural Coating - 2025

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	3.9116					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2000e-003	8.0200e-003	0.0127	2.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	1.7873	1.7873	1.0000e-004	0.0000	1.7897
Total	**3.9128**	**8.0200e-003**	**0.0127**	**2.0000e-005**		**3.6000e-004**	**3.6000e-004**		**3.6000e-004**	**3.6000e-004**	**0.0000**	**1.7873**	**1.7873**	**1.0000e-004**	**0.0000**	**1.7897**

3.7 Architectural Coating - 2025

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	5.9300e-003	3.5400e-003	0.0387	1.4000e-004	0.0170	1.0000e-004	0.0171	4.5100e-003	9.0000e-005	4.6000e-003	0.0000	12.3459	12.3459	2.4000e-004	0.0000	12.3518
Total	**5.9300e-003**	**3.5400e-003**	**0.0387**	**1.4000e-004**	**0.0170**	**1.0000e-004**	**0.0171**	**4.5100e-003**	**9.0000e-005**	**4.6000e-003**	**0.0000**	**12.3459**	**12.3459**	**2.4000e-004**	**0.0000**	**12.3518**

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	3.9116					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2000e-003	8.0200e-003	0.0127	2.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	1.7873	1.7873	1.0000e-004	0.0000	1.7897
Total	**3.9128**	**8.0200e-003**	**0.0127**	**2.0000e-005**		**3.6000e-004**	**3.6000e-004**		**3.6000e-004**	**3.6000e-004**	**0.0000**	**1.7873**	**1.7873**	**1.0000e-004**	**0.0000**	**1.7897**

3.7 Architectural Coating - 2025

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	5.9300e-003	3.5400e-003	0.0387	1.4000e-004	0.0170	1.0000e-004	0.0171	4.5100e-003	9.0000e-005	4.6000e-003	0.0000	12.3459	12.3459	2.4000e-004	0.0000	12.3518
Total	**5.9300e-003**	**3.5400e-003**	**0.0387**	**1.4000e-004**	**0.0170**	**1.0000e-004**	**0.0171**	**4.5100e-003**	**9.0000e-005**	**4.6000e-003**	**0.0000**	**12.3459**	**12.3459**	**2.4000e-004**	**0.0000**	**12.3518**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Improve Pedestrian Network

Implement Trip Reduction Program

Employee Vanpool/Shuttle

	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	2.8449	20.9490	32.7617	0.2029	13.9462	0.1882	14.1344	3.7642	0.1784	3.9425	0.0000	18,897.0461	18,897.0461	0.6814	0.0000	18,914.0819
Unmitigated	3.0410	23.4291	36.7661	0.2305	16.1178	0.2163	16.3341	4.3503	0.2051	4.5554	0.0000	21,470.6420	21,470.6420	0.7284	0.0000	21,488.8509

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	12,369.70	6,076.34	6076.34	42,192,202	36,507,600
Total	12,369.70	6,076.34	6,076.34	42,192,202	36,507,600

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
Unrefrigerated Warehouse-No	9.50	7.30	15.00	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.483580	0.043245	0.188169	0.107110	0.003644	0.004172	0.054876	0.106665	0.001183	0.001302	0.004809	0.000595	0.000651

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	4,840.0692	4,840.0692	0.2189	0.0453	4,859.0340
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	4,840.0692	4,840.0692	0.2189	0.0453	4,859.0340
NaturalGas Mitigated	0.1192	1.0833	0.9100	6.5000e-003		0.0823	0.0823		0.0823	0.0823	0.0000	1,179.2908	1,179.2908	0.0226	0.0216	1,186.2988
NaturalGas Unmitigated	0.1192	1.0833	0.9100	6.5000e-003		0.0823	0.0823		0.0823	0.0823	0.0000	1,179.2908	1,179.2908	0.0226	0.0216	1,186.2988

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					
Unrefrigerated Warehouse-No Rail	2.20991e+007	0.1192	1.0833	0.9100	6.5000e-003		0.0823	0.0823		0.0823	0.0823	0.0000	1,179.2908	1,179.2908	0.0226	0.0216	1,186.2988
Total		**0.1192**	**1.0833**	**0.9100**	**6.5000e-003**		**0.0823**	**0.0823**		**0.0823**	**0.0823**	**0.0000**	**1,179.2908**	**1,179.2908**	**0.0226**	**0.0216**	**1,186.2988**

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					
Unrefrigerated Warehouse-No Rail	2.20991e+007	0.1192	1.0833	0.9100	6.5000e-003		0.0823	0.0823		0.0823	0.0823	0.0000	1,179.2908	1,179.2908	0.0226	0.0216	1,186.2988
Total		**0.1192**	**1.0833**	**0.9100**	**6.5000e-003**		**0.0823**	**0.0823**		**0.0823**	**0.0823**	**0.0000**	**1,179.2908**	**1,179.2908**	**0.0226**	**0.0216**	**1,186.2988**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	1.66376e+007	4,840.0692	0.2189	0.0453	4,859.0340
Total		**4,840.0692**	**0.2189**	**0.0453**	**4,859.0340**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	1.66376e+007	4,840.0692	0.2189	0.0453	4,859.0340
Total		**4,840.0692**	**0.2189**	**0.0453**	**4,859.0340**

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	5.7919	3.0000e-004	0.0332	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	0.0646	0.0646	1.7000e-004	0.0000	0.0688
Unmitigated	5.7919	3.0000e-004	0.0332	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	0.0646	0.0646	1.7000e-004	0.0000	0.0688

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	0.8382					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.9506					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0500e-003	3.0000e-004	0.0332	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	0.0646	0.0646	1.7000e-004	0.0000	0.0688
Total	**5.7919**	**3.0000e-004**	**0.0332**	**0.0000**		**1.2000e-004**	**1.2000e-004**		**1.2000e-004**	**1.2000e-004**	**0.0000**	**0.0646**	**0.0646**	**1.7000e-004**	**0.0000**	**0.0688**

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	0.8382					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.9506					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0500e-003	3.0000e-004	0.0332	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	0.0646	0.0646	1.7000e-004	0.0000	0.0688
Total	**5.7919**	**3.0000e-004**	**0.0332**	**0.0000**		**1.2000e-004**	**1.2000e-004**		**1.2000e-004**	**1.2000e-004**	**0.0000**	**0.0646**	**0.0646**	**1.7000e-004**	**0.0000**	**0.0688**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1,265.5592	21.8509	0.5247	1,968.1865
Unmitigated	1,581.9490	27.3137	0.6559	2,460.2332

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	836.401 / 0	1,581.9490	27.3137	0.6559	2,460.2332
Total		**1,581.9490**	**27.3137**	**0.6559**	**2,460.2332**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	669.121 / 0	1,265.5592	21.8509	0.5247	1,968.1865
Total		**1,265.5592**	**21.8509**	**0.5247**	**1,968.1865**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	172.5352	10.1965	0.0000	427.4487
Unmitigated	690.1409	40.7862	0.0000	1,709.7948

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	3399.86	690.1409	40.7862	0.0000	1,709.7948
Total		**690.1409**	**40.7862**	**0.0000**	**1,709.7948**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	849.965	172.5352	10.1965	0.0000	427.4487
Total		**172.5352**	**10.1965**	**0.0000**	**427.4487**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	42	8.00	260	17	0.20	Diesel

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

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	-961.0000	0.0000	0.0000	-961.0000

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Cropland	155 / 0	-961.0000	0.0000	0.0000	-961.0000
Total		**-961.0000**	**0.0000**	**0.0000**	**-961.0000**

FEIR APPENDIX C
PROPOSED BEST AVAILABLE AIR QUALITY MITIGATION MEASURES

MARIPOSA INDUSTRIAL PARK

PROPOSED ALL FEASIBLE AIR QUALITY MITIGATION MEASURES

The following list is what the City of Stockton considers "all feasible air quality mitigation measures" in combination with mitigation measures specified in the DEIR for the Mariposa Industrial project. These measures are compiled from a similar list included in the June 2020 certified EIR for Sanchez-Hoggan Annexation which have been modified in response to comments submitted by the California Air Resources Board, the San Joaquin Valley Air Pollution Control District and the California Department of Justice on the Draft EIR for the Mariposa Industrial Park project. The purpose of the modifications has been to improve the applicability and enforceability of the measures with respect to the Mariposa Industrial project and to future tenants and users of the project. The nature of the agency comments and the City's response to the comments are detailed in Chapter 3.0 of the Final EIR.

Early in the process of preparing the Mariposa Industrial DEIR, in order to pro-actively address the air quality concerns of the agencies, the City and the project applicant agreed to include the Sanchez-Hoggan list of air quality mitigations, known as the Additional Air Quality Improvement Measures, in the Mariposa EIR and to require their implementation as conditions of approval in conjunction with approval of the Mariposa Industrial Park project. Those measures were included in Appendix B and referenced in the analysis of air quality impacts in the EIR.

The proposed project as considered in the Mariposa Industrial EIR anticipates that the conceptual development plans addressed in the EIR will eventually be replaced by tenant-specific plans for industrial uses that are not known or only partially known at this time. The air quality improvement measures recommended by the agencies have been applied to industrial projects in other areas of the state as stated by the agencies, but there is little to no experience with these measures in the general project vicinity. These and other factors introduce uncertainty into the feasibility of future implementation of the measures.

The listed measures are to be applied to the project and subsequent projects as conditions of approval. It is intent of the City of Stockton that the listed measures will be faithfully applied, to the degree feasible, to subsequent Mariposa Industrial Park developments as these projects are reviewed and processed by City staff. In the event that one or more of the measures are considered infeasible by the proposed tenant, the City will consider the feasible means for implementing the measures as well as options for modifying, relaxing or extending the implementation period for the measures based on substantial evidence submitted in conjunction with the project application process. Substantial evidence may include records of commercially reasonable efforts to obtain the required vehicles or equipment, evidence that such equipment is not commercially available and any applicant efforts to achieve the objective of the measure.

The City of Stockton will be responsible evaluation of information submitted by the applicant and for acceptance and enforcement of the approved measures. Documentation related to City

activities will be made available to responsible and trustee agencies involved in the preparation and review of the Mariposa Industrial DEIR.

GREENLAW – BUILDING AND SITE DESIGN

Proposed industrial structures shall be designed and constructed to LEED standards (17)

Industrial structure design shall include "cool roof" provisions as required by California Energy Code Sections 110.8(i) and 140.3(a)1 (22)

Industrial structure shall be "solar ready," designed to accommodate solar panel installation an conduit from electrical panel to panel locations per the California Energy Code (11j).

Electrical conduit shall be provided from electrical panel to all dock doors to provide for future EV truck charging (14)

Electrical conduit shall be provided to exterior site locations that would facilitate use and charging of electrical landscaping equipment (23)

Electrical conduit shall be extended to designated light vehicle EV charging locations as required by 2019 CalGreen Code Section 5.106.5.3(15).

GREENLAW – CONSTRUCTION CONTRACTOR REQUIREMENTS

The following requirements shall be incorporated into the developer's construction plans and specifications. Implementation shall be the responsibility of the contractor.

All heavy-duty trucks entering the construction site during the grading and building construction phases shall be model year 2014 or later (APCD).

All heavy-duty haul trucks should also meet CARB's lowest option allow-oxides of nitrogen (NOx) standard starting by the year 2023 (APCD).

All construction activities must comply with all applicable air quality regulations (3), including SJVAPCD Regulation VIII for Fugitive Dust Control and observation of the following requirements:

Dust control plans shall be submitted for APCD review and approval (25e)

Conform with original AAQIMs specifications including watering 3X daily, use of soil stabilizers, no grading operations during high winds, regular street sweeping (20)

Limiting the amount of daily grading disturbance area (DOJ)

Prohibiting grading on days with an Air Quality Index forecast of greater than 100 for particulates or ozone for the project area (DOJ).

VOC content of architectural coatings shall be limited in accordance with SJVAPCD Reg 4601 (25i).

Off-road construction equipment shall comply with the following standards:

All off-road equipment shall be in compliance with all current air quality regulations. Specific regulations applicable to the project shall be identified in construction specifications.

Off-road construction equipment shall be the cleanest commercially available equipment.

Off-road construction equipment shall be zero emission where commercially available (DOJ language). Off-road construction equipment shall at a minimum be equipped with CARB Tier IV-compliant engines or better, if available. In place of Tier 4 engines, off-road equipment can incorporate retrofits, such that, emission reductions achieved are equal to or exceed that of a Tier 4 engine (APCD).

All off-road equipment with a power rating below 19 kilowatts (e.g., plate compactors, pressure washers) used during project construction shall be battery powered.

Off-road diesel equipment shall not be "on" more than 10 hours/day (25c)

The project construction yard(s) shall be connected to the power grid, rather than use of diesel-fueled generators, to facilitate use of electric construction tools.

The construction area shall be posted to restrict idling of construction equipment to 5 minutes or less (CARB recommendation)

The contractor shall maintain construction equipment records, including an inventory of on-site equipment, equipment specifications and maintenance records (25g), which would be available to lead agency on request (DOJ)

The contractor shall cooperate with City mitigation monitoring efforts (25h)

GREENLAW – PROVIDE INFORMATION TO TENANTS

The developer shall provide each tenant with detailed Information outlining applicable air quality regulations, standards and enforcement authority.

The developer shall provide information to each prospective tenant regarding applicable air quality regulations, standards and enforcement authority, mitigation requirements included in the City's certified EIR and any other applicable air quality rules and regulations pertaining to warehousing and distribution uses as identified and discussed in the EIR, including.

CARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation

Periodic Smoke Inspection Program (PSIP)

Advanced Clean Trucks Regulation

Statewide Truck and Bus Regulation

The developer shall provide information to each prospective tenant regarding programs available to assist in financing of conversion to or purchase of new zero- and low-emission trucks and equipment.

CARB's proposed ACT Rule and Clean Truck Programs at the Ports of Long Beach and Los Angeles (7) (idea document)

SCAQMD's Carl Moyer Program, or other such programs that promote truck retrofits or "clean" vehicles, related health information (8)

Voucher Incentive Program (11p, 12)

TENANT CC&RS AND/OR LEASE AGREEMENTS TO INCLUDE THE FOLLOWING

Tenant CCRs shall provide the following notifications, subject to permit revocation or additional conditions:

Facility operators are expected to train managers and employees on efficient scheduling and load management to eliminate unnecessary queuing and idling of trucks.
Facility operators with responsibility for truck fleet and on-site equipment operations are expected to maintain truck and equipment records as they pertain to pollution emission control equipment requirements and maintenance, and to make records available to the lead agency on request. Operators will also have responsibility for knowledge of applicable pollution control requirements, which can be obtained through CARB-approved courses.

Facility operators will be responsible for efforts to minimize truck idling, including posting of signage as required in __

Tenants shall be responsible for installing and maintain the following signage:

Clearly-designated entry and exit points (19a)

Signage directing trucks to truck routes (11n)

Signage at entrances regarding State idling requirements (11f)

Truck parking is allowed only on the project site and disallowed on any nearby public streets (19b)

Tenants shall be responsible for providing the adequate charging infrastructure for tenant-owned electric vehicles and equipment.

Tenants shall designate parking areas of for clean air vehicles as required by 2019 CalGreen Code Section 5.106.5.2.

Tenants shall provide electric truck charging circuits and related equipment at dock doors in proportion to the predicted percentage of EV trucks using the site.

TRU charging stations are not required at this time but may be required in conjunction with future tenants with cold storage needs.

Tenants shall install light EV charging stations in parking areas at ratio required by CalGreen Code Section 5.106.5.3 (11h). (Conduit is installed by the developer.)

TENANT REQUIREMENTS FOR LOW IMPACT, ZERO EMISSION TRUCKS AND EQUIPMENT

Tenants utilize electric-powered or zero-emission forklifts, tuggers, and other off-road mobile equipment to the degree feasible together with electrical charging stations provided. (11d) CARB indicates that this equipment is widely available and can be purchased using incentive funding from CARB's Clean Off-Road Equipment Voucher Incentive Project (CORE).

Tenant light and medium-duty vehicle fleets shall be composed of zero-emission to the degree feasible (11e). Infeasibility shall be documented and based on substantial evidence submitted to the lead agency.

All emergency generators shall be powered by a non-diesel fuel.

OTHER TENANT REQUIREMENTS

Tenants with 100 or more employees shall

Provide changing/shower facilities (1);

Provide onsite meal options such as break rooms, food trucks (11b)

Tenants with 100 or more employees shall prepare and implement a Trip Reduction Plan regarding employee transit and ridesharing per SJVAPCD Rule 9410 (11a);

FEIR APPENDIX D
REVISED TRAFFIC IMPACT STUDY

TRAFFIC IMPACT STUDY

FOR

THE MARIPOSA INDUSTRIAL PARK PROJECT

Stockton, California

Prepared For:

BaseCamp Environmental

Prepared By:

KD Anderson & Associates
3853 Taylor Road, Suite G
Loomis, California 95650
(916) 660-1555

July 9, 2021

0780 -18

TRAFFIC IMPACT STUDY FOR
THE MARIPOSA INDUSTRIAL PARK PROJECT

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EXECUTIVE SUMMARY

This *Executive Summary* is a brief overview of the analysis presented in this traffic impact study. It is not intended to be a comprehensive description of the analysis. For more details, the reader is referred to the full description presented in the traffic impact study.

This traffic impact study presents an analysis of the traffic-related effects of the Mariposa Industrial Park project. The project is located in unincorporated San Joaquin County, southeast of the City of Stockton, east of State Route (SR) 99, north of Littlejohns Creek, southwest of Mariposa Road. The project site is approximately 203.48 acres in size and is proposed to include 3,616,870 building square feet (sf) of high-cube warehouse industrial land use.

Access to the Mariposa Industrial Park site would be provided via two driveway connections to Mariposa Road.

This traffic impact study includes analysis of:

- 15 intersections,
- 12 roadway segments, and
- 13 freeway ramp junction areas.

These study facilities are analyzed under the following five development scenarios:

- Existing Conditions,
- Near-Term Future Existing Plus Approved Projects (EPAP) No Mariposa Industrial Park Project Conditions,
- Near-Term Future EPAP Plus Mariposa Industrial Park Project Conditions,
- Long-Term Future Cumulative No Mariposa Industrial Park Project Conditions, and
- Long-Term Future Cumulative Plus Mariposa Industrial Park Project Conditions.

Under Existing Conditions, all study intersections operate at conditions which are considered acceptable. One study roadway segment and one freeway weave area operate at conditions which are considered unacceptable. This traffic impact study presents a recommended improvement for the study roadway segment.

Under EPAP No Mariposa Industrial Park Project conditions, three study intersections, two study roadway segments, and three study freeway ramp and weave facilities would experience operating conditions which are considered unacceptable. This traffic impact study presents recommended improvements for two of the study intersections, and one of the study roadway segments.

Under EPAP Plus Mariposa Industrial Park Project conditions, four study intersections, two study roadway segments, and three study freeway ramp and weave facilities would experience operating conditions which are considered unacceptable. The project-related change at two study intersections and one study roadway segment would be considered a significant inconsistency with General Plan policies and recommended improvements are identified to reduce the inconsistency to a less than significant level.

Under Cumulative No Mariposa Industrial Park Project conditions, two study roadway segments would experience operating conditions which are considered unacceptable. This traffic impact study presents recommended improvements for one of these two facilities.

Under Cumulative Plus Mariposa Industrial Park Project conditions, three study roadway segments would experience operating conditions which are considered unacceptable. The project-related change at one study roadway segment would be considered a significant inconsistency with General Plan policies and a recommended improvement is identified to reduce the inconsistency to a less than significant level. The project-related change at two of these three facilities would be less than thresholds considered to be significant. Therefore, the project-related inconsistency at these facilities is considered less than significant.

In addition to presenting an analysis of traffic operating conditions, this traffic impact study also presents analysis of project-related impacts on

- demand for public transit services,
- demand for bicycle and pedestrian facilities, and
- vehicle miles traveled.

INTRODUCTION

STUDY PURPOSE

This traffic impact study presents an analysis of the traffic-related effects of the proposed Mariposa Industrial Park project.

PROJECT DESCRIPTION

The following is a description of the Mariposa Industrial Park project.

Project Location

The Mariposa Industrial Park project site is in the San Joaquin County unincorporated area, adjacent to the southeastern limits of the City of Stockton. **Figure 1** presents an aerial photograph of the vicinity of the project site. The project site encompasses 203.48 acres.

Project Land Uses

The project proposes to develop the project site for light industrial land uses, primarily "high-cube" warehouses. The details of the proposed development are discussed below.

The project proposes the annexation of the project site into the City of Stockton. The City would submit an annexation application to the San Joaquin Local Agency Formation Commission (LAFCO), which would be responsible for a decision on the annexation.

The project site is currently zoned by the County as AG-40 – General Agriculture with a 40-acre minimum parcel size. The project would include a request that the City pre-zone the entire project site Industrial, Limited (IL). This pre-zoning would be consistent with the current Industrial designation of the project site under the City of Stockton General Plan (City of Stockton 2018a) and with the proposed project.

Upon annexation, the project site is proposed to be developed with light industrial land uses, mainly high-cube warehouses. **Figure 2** shows a conceptual site plan. A "high-cube warehouse" is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of approximately 24 feet or more, and is used primarily for the storage and/or consolidation of manufactured goods (and, to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. A typical high-cube warehouse has a high level of on-site automation and logistics management, which enable highly efficient processing of goods through the warehouse.

As shown in **Figure 2**, the Mariposa Industrial Park project would include 3,616,870 building square feet of proposed development.

A total of approximately 2,900 parking stalls would be provided throughout the project site. Of that total, approximately 1,800 stalls would be for automobiles, 37 of which would be accessible to drivers with disabilities. The remaining approximately 1,100 stalls would be for trucks and trailers.

Circulation

Access would be from two driveways off Mariposa Road in the northeastern portion of the project site. In this traffic impact study, these two access locations are referred to as the "Southeast Project Driveway" and the "Northwest Project Driveway". The Southeast Project Driveway would provide the main access to the project site, with an access road leading to most of the proposed development. The Northwest Project Driveway would provide access to the two northernmost buildings proposed on the site. Curb, gutter, and sidewalk would be installed along existing undeveloped street frontage in accordance with City standards. In addition, access to the project site would be made available from Marfargoa Road and Clark Road for emergency vehicles only. **Figure 3** shows a striping plan for the project site frontage along Mariposa Road.

Desirable intersection spacing is often considered to be 1,000 feet between intersections. The distance between the driveway intersections for the Southeast Project Driveway and the Northwest Project Driveway is less than 1,000 feet. However, both of the driveway intersections would be "T" intersections. Neither would be a four-leg intersection. Because both driveways would connect at "T" intersections, neither intersection would have southeastbound-to-northeastbound left-turn movements. The absence of a need for vehicle storage for southeastbound-to-northeastbound left-turn movement at the Southeast Project Driveway intersection results in the distance between the two intersections being available for the northwestbound-to-southwestbound left-turn movement at the Northwest Project Driveway. As a result, the distance between the two project driveway intersections is considered to be adequate.

In the near-term future, this traffic impact study assumes the Southeast Project Driveway connection with Mariposa Road would include signalized intersection control. In the near-term future, the Northwest Project Driveway would include unsignalized stop-sign control, with the driveway being the controlled approach. In the long-term future, the Stockton General Plan includes widening of Mariposa Road from two lanes (one lane in each direction) to four lanes (two lanes in each direction). In the long-term future, this traffic impact study assumes both the Southeast Project Driveway connection and the Northwest Project Driveway connection would include signalized intersection control.

Project site frontage improvements will be geometrically designed to accommodate Surface Transportation Assistance Act (STAA) design vehicle truck movements and heavy truck loads.

OVERALL ANALYSIS APPROACH

As noted above, this traffic impact study presents an analysis of the traffic-related effects of the Mariposa Industrial Park project. This analysis is conducted using near-term future background conditions and long-term future background conditions. Future background conditions are based

on the City of Stockton General Plan. Analysis of traffic operating conditions under the following five scenarios is presented in this traffic impact study:

- Existing Conditions,
- EPAP No Mariposa Industrial Park Project,
- EPAP Plus Mariposa Industrial Park Project,
- Cumulative No Project, and
- Cumulative Plus Project.

Existing Plus Approved Projects conditions are a near-term background condition which includes existing traffic levels, and traffic associated with approved but unconstructed land use development projects in vicinity of the project site.

Cumulative conditions with the City of Stockton General Plan are a long-term background condition which includes future year forecasts of traffic volumes, based on development of surrounding land uses. This set of scenarios assumes 2040 conditions with future development consistent with the General Plan.

VICINITY MAP

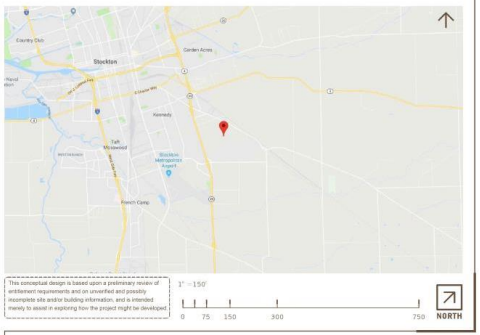
KD Anderson & Associates, Inc.
Transportation Engineers

0780-18 RA 3/11/2021

figure 1

PROJECT DATA:

SITE AREA:		
GROSS:		208.24 AC
		9,070,892 SF
DETENTION:	@ 10%	875,088 SF
NET:		188.15 AC
		8,195,804 SF
BUILDING FOOTPRINT:		
BUILDING 1		670,320 SF
BUILDING 2		637,450 SF
BUILDING 3		1,021,440 SF
BUILDING 4		1,021,440 SF
BUILDING 5		64,260 SF
BUILDING 6		100,980 SF
BUILDING 7		100,980 SF
TOTAL FOOTPRINT:		3,616,870 SF
BUILDING USE:		
WAREHOUSE		3,436,027 SF
OFFICE	@ 5%	180,844 SF
COVERAGE:		
GROSS:		40%
NET:		44%
PARKING REQUIRED:		
WAREHOUSE	1/2000 SF	1,718 STALLS
PARKING PROVIDED:		
AUTO:		1,831 STALLS
		@0.51/1000 SF
REQ. ACCESSIBLE		*37 STALLS*
TRAILER:		1,107 STALLS



scheme: 1

Conceptual Site Plan

Marfargoa Road
Stockton, CA 95215

WARE MALCOMB

SNR19-0015-00
07.10.2020

SHEET
1

SITE PLAN

KD Anderson & Associates, Inc.
Transportation Engineers

0780-18 RA 7/9/2021

figure 2

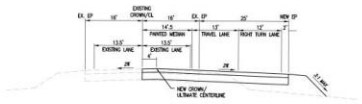
DETAIL 1
SCALE 1" = 10'

DECELERATION / TURN LANE CALCULATIONS:

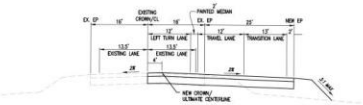
- POSTED SPEED: 55 MPH
- DEPARTURE SPEED: 45 MPH (19% RED. OF POSTED SPEED)
- STOPPING SIGHT DISTANCE (45 MPH): 360'
- BAY TAPER LENGTH: 120'
- PROPOSED TURN LANE: 380'
- TOTAL LENGTH: 500'
- STORAGE AVAILABLE: 500' - 360' = 140'

ACCELERATION LANE CALCULATIONS:

- POSTED SPEED: 55 MPH
- ACCELERATION LANE: 300'
- TAPER DISTANCE (55 MPH): 12*55 = 660'
- TOTAL LENGTH: 960'



SECTION A-A
NOT TO SCALE



SECTION B-B
NOT TO SCALE

REVISION

PRELIMINARY

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www.kierwright.com

INTERIM STRIPING PLAN
OF
MARIPOSA INDUSTRIAL PARK
FOR
GREENLAW PARTNERS
STOCKTON, CALIFORNIA

DATE	JUNE, 2021
SCALE	AS SHOWN
DESIGNER	RME
DRAWN BY	SA
JOB NO.	A20631
SHEET	EX-1
OF	1 SHEETS

STRIPING PLAN

EXISTING SETTING

This section of this traffic impact study presents a description of existing conditions in the study area. Information presented in this section of the study is based on on-site field observations, traffic count data collected for this study, and other data available from local and state agencies.

This section of the traffic impact study also describes analysis methods applied for this study, and thresholds used to determine the significance of project-related effects.

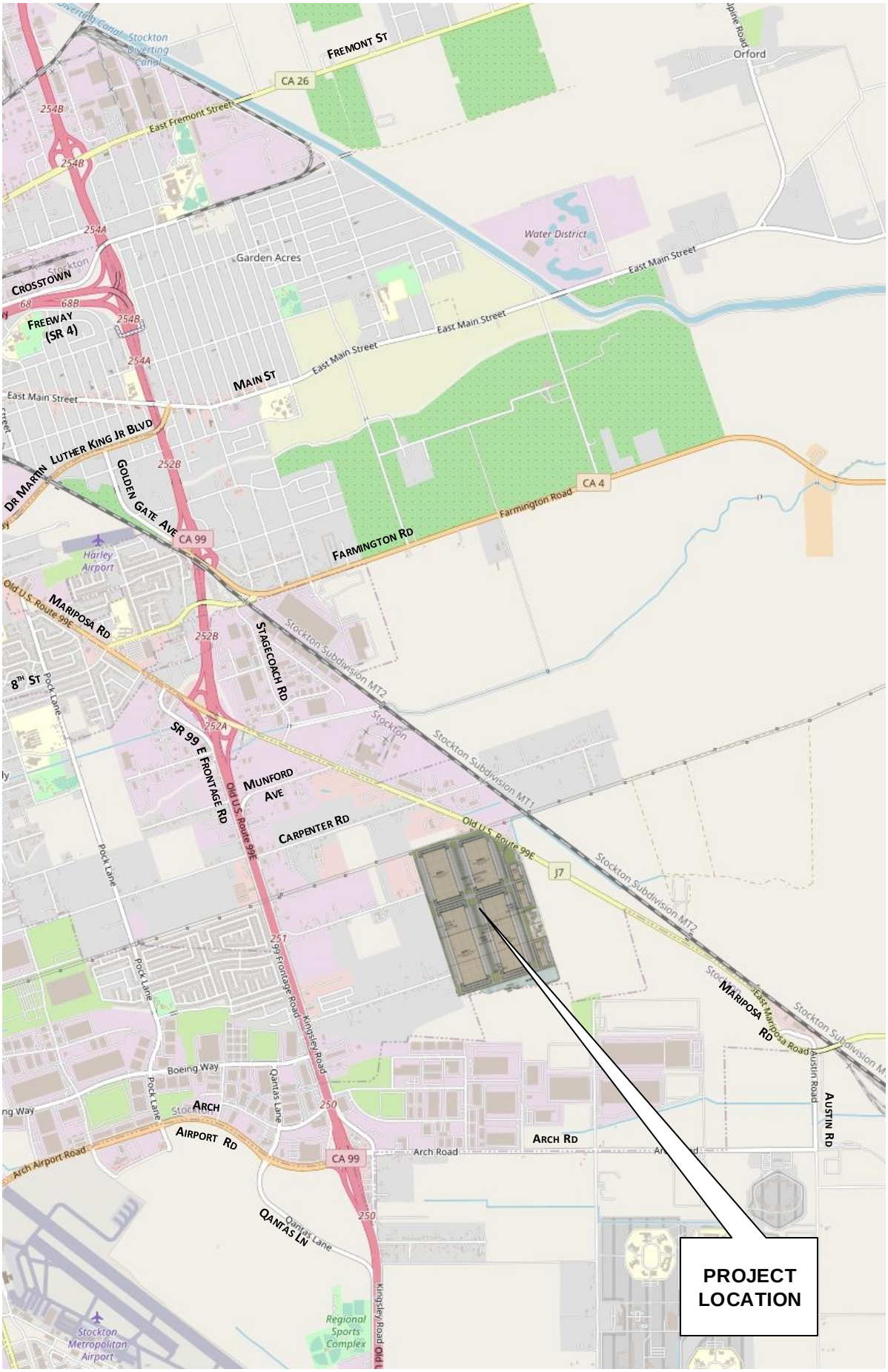
STUDY AREA ROADWAYS

This traffic impact study presents analyses of traffic operating conditions at intersections, on roadways, and at freeway ramp junctions, in the study area that may be affected by the proposed project. The limits of the study area were identified through discussions with City of Stockton staff (Moore pers. comm.).

The following is a description of roadways that provide access to the proposed project site. These roadways are shown in **Figure 1** and **Figure 4**.

State Route 99 is a freeway that traverses the Central Valley, connecting Sacramento and points north with numerous Central Valley cities, including Modesto, Merced, Fresno and Bakersfield. Three travel lanes are provided in each direction in the vicinity of the project site, with auxiliary lanes present at some locations. Twelve interchanges are provided along the 12-mile length of SR 99 within and adjacent to the Stockton City limits. Average daily traffic (ADT) volumes on SR 99 range between 80,000 and 95,000 in the vicinity of the project site based on data available at California Department of Transportation 2021. The speed limit on SR 99 is 65 miles per hour (mph) in the vicinity of the proposed project site.

Mariposa Road is a west-northwest-to-east-southeast roadway connecting Dr. Martin Luther King Jr. Boulevard in south Stockton with Escalon Bellota Road north of Escalon. In the vicinity of the project site, Mariposa Road is a two-lane roadway. The portion of Mariposa Road southeast of Carpenter Road has a 55 mph posted speed limit. Between Carpenter Road and 8th Street/Farmington Road (northwest of SR 99), the posted speed limit is 50 mph. Mariposa Road crosses a railroad track with a grade-separated railroad crossing located just east of the intersection with Austin Road. Limited pedestrian and no bicycle facilities are provided along the roadway within the study area. Mariposa Road is classified in the City of Stockton General Plan (City of Stockton 2018a) as an arterial roadway. In the future, the General Plan indicates Mariposa Road would be six lanes wide from Dr. Martin Luther King Jr. Boulevard to Carpenter Road and four lanes wide from Carpenter Road to southeast of Austin Road.



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Transportation Engineers

0780-18 RA 7/9/2021

STUDY AREA

figure 4

Crosstown Freeway (SR 4) is an east-west freeway that traverses downtown Stockton. The eastern terminus of the Crosstown Freeway is at SR 99. The western terminus of the Crosstown Freeway is at Navy Drive, approximately 1.4 miles west of Interstate 5 (I-5). The Crosstown Freeway is designated SR 4, which continues west to Interstate 80 in the San Francisco Bay Area, and continues east into the Sierra Nevada foothills. The portion of the Crosstown Freeway immediately west of SR 99 is eight lanes wide. It is six to eight lanes wide through downtown Stockton. West of I-5, it is four lanes wide.

Carpenter Road is a west-southwest-to-east-northeast two-lane roadway that connects with Mariposa Road at an unsignalized intersection approximately one-third of a mile west-northwest of the project site. The east-northeastern terminus of Carpenter Road is approximately 0.9 mile east-northeast of Mariposa Road. To the west-southwest, Carpenter Road terminates at SR 99 East Frontage Road, approximately 0.8 mile west-southwest of Mariposa Road. West of SR 99, a discontinuous portion of Carpenter Road extends west-southwest to Airport Way. Carpenter Road is classified in the City of Stockton General Plan (City of Stockton 2018a) as a collector roadway with a future east-northeast extension connecting to a future northern extension of Austin Road.

Munford Avenue is a west-southwest-to-east-northeast two-lane roadway that connects with Mariposa Road at a signalized intersection approximately 0.8 mile west-northwest of the project site. The east-northeastern terminus of Munford Avenue is at Mariposa Road. To the west-southwest, Munford Avenue terminates at SR 99 East Frontage Road, approximately 0.4 mile west-southwest of Mariposa Road. West of SR 99, a discontinuous portion of Munford Avenue extends approximately 0.4 mile west-southwest of SR 99.

Stagecoach Road is a north-south two-lane roadway with a southern terminus at a signalized intersection with Mariposa Road and a northern terminus at Farmington Road. The southwest leg of the intersection of Mariposa Road & Stagecoach Road is a gated driveway for Oldcastle Infrastructure.

Farmington Road is an east-west roadway with an overcrossing of SR 99. In the immediate vicinity of SR 99, it is two lanes wide. Approximately one-quarter mile east of SR 99, Farmington Road intersects with Golden Gate Avenue. East of this intersection, Farmington Road is two lanes to four lanes wide, with a center two-way left-turn lane (CTWLTL) along portions of the roadway. Farmington Road continues east into the Sierra Nevada foothills as SR 4. Approximately one-half mile west-southwest of SR 99, Farmington Road intersects with Mariposa Road. To the west-southwest of Mariposa Road, the roadway continues as 8th Street. Discontinuous portions of 8th Street extend to the southwest portion of Stockton.

Golden Gate Avenue is a northwest-to-southeast roadway with an interchange on SR 99. The roadway is four lanes wide southeast of SR 99 and two lanes wide northwest of SR 99. The southeastern terminus of Golden Gate Avenue is at Farmington Road, approximately one-quarter mile southeast of SR 99. Approximately one-third of a mile northwest of SR 99, Golden Gate Avenue transitions to a north-northwest – south-southeast alignment. This portion of Golden Gate Avenue has a north-northwest terminus at the Crosstown Freeway. Discontinuous portions of Golden Gate Avenue are present north of the Crosstown Freeway.

Fremont Street is a west-southwest – to – east-northeast roadway with an interchange on SR 99. In the immediate vicinity of SR 99 and extending west-southwest to Wilson Way, Fremont Street is four lanes wide. West of Wilson Way, discontinuous portions of Fremont Street are two lanes wide, traverse downtown Stockton, and terminate west of I-5. East-northeast of SR 99, Fremont Street is two lanes wide and is designated SR 26. SR 26 extends to the northeast into the Sierra Nevada foothills.

Austin Road is a north-south roadway that extends south from Mariposa Road, and passes through Manteca before terminating at Caswell Memorial State Park. Within the project study area, Austin Road is a two-lane roadway with no pedestrian or bicycle facilities. Austin Road is classified in the City of Stockton General Plan (City of Stockton 2018a) as an arterial roadway with a future west-northwest extension to Main Street.

Arch Road / Arch-Airport Road / Sperry Road / French Camp Road is an east-west roadway with several names. It is classified in the City of Stockton General Plan (City of Stockton 2018) as an arterial roadway. The roadway extends from Carolyn Weston Boulevard in the west to the Burlington Northern Santa Fe (BNSF) facility east of Austin Road. In the study area, Arch Road is generally a two-lane roadway with a posted speed limit of 45 mph. Additional lanes are provided at some portions, including the portion in the vicinity of the SR 99 interchange. Arch Road is currently undergoing improvements with some segments widened to provide additional travel capacity. In some cases, the widened portions are not yet striped to accommodate additional traffic. Sidewalks are provided along some portions of Arch Road, including portions on the north side from Logistics Drive to approximately 100 feet east of Fite Court, and on the south side from Logistics Drive to Newcastle Road. There are no bicycle facilities on Arch-Airport Road/Arch Road in the project study area.

SR 99 East Frontage Road runs parallel to and east of SR 99. North of Arch Road, this roadway curves to the east, becoming Munford Avenue, and terminates at Mariposa Road. South of Arch Road, the roadway becomes Kingsley Road, terminating approximately 1.5 miles south of Arch Road. SR 99 East Frontage Road is a two-lane roadway with limited pedestrian facilities and no bicycle facilities in the project study area.

Qantas Lane is a north-south roadway that begins at Boeing Way to the north. South of Arch-Airport Road, Qantas Lane becomes SR 99 West Frontage Road located on the west side of SR 99. North of Arch-Airport Road, Qantas Lane is a two-lane roadway, while four travel lanes are provided south of Arch-Airport Road. South of the vicinity of Arch-Airport Road, Qantas Lane transitions to a two-lane roadway (one lane in each direction). Limited pedestrian facilities and no bicycle facilities are provided along Qantas Lane within the project study area.

TRUCK ROUTES

The City of Stockton *Truck Routes* map (City of Stockton 2009) and *STAA Truck Routes* map (City of Stockton 2017) describe truck routes in the Stockton area. Some of the truck routes are designated for use by STAA design vehicle trucks. These are large vehicles that have relatively

large turning radii, and require roadway design features that accommodate the large turning radii. The following are designated truck routes in the vicinity of the project site:

- Mariposa Road from Dr. Martin Luther King Jr. Boulevard to east-southeast of Austin Road is a route for vehicles transporting flammable liquids.

- Sperry Road/Arch Airport Road/Arch Road from McKinley Avenue to Austin Road is a City designated truck route.

- Mariposa Road from Dr. Martin Luther King Jr. Boulevard to Munford Avenue is a designated STAA truck route. Portions are designated by the City and portions are designated by the County of San Joaquin.

- Munford Avenue from Mariposa Road to 3730 Munford Avenue is designated by the County as an STAA truck route.

- Golden Gate Avenue from SR 99 to Dr. Martin Luther King Jr. Boulevard is a County designated STAA truck route, and Dr. Martin Luther King Jr. Boulevard from Golden Gate Avenue to I-5 is a City designated STAA truck route.

- Fremont Street from Windsor Avenue (west of SR 99) to Cardinal Avenue (east of SR 99), and Cardinal Avenue from Fremont Street to 207 N. Cardinal Avenue are County designated STAA truck routes.

- French Camp Road/Sperry Road/Arch Airport Road/Arch Road from I-5 to Austin Road is a designated STAA truck route. Portions are designated by the City and portions are designated by the County.

- Qantas Lane from Arch-Airport Road to Boeing Way, and Boeing Way from Qantas Lane to Airport Way are City designated STAA truck routes.

- Newcastle Road north of Arch Road is a City designated STAA truck route.

Routes anticipated to be used by STAA trucks to access the project site include the following (Ebenal pers. comm.):

- SR 99 north of Fremont Street,
- SR 99 south of Arch Road,
- Crosstown Freeway west of SR 99,
- Golden Gate Avenue west of SR 99,
- Golden Gate Avenue east of SR 99,
- Mariposa Road west of SR 99,
- Boeing Way west of Qantas Lane,
- Arch-Airport Road west of Qantas Lane, and
- Airport Way.

A separate standalone assessment focusing on the potential effects of Mariposa Industrial Park project-related trucks is being prepared by the civil engineering firm Kier + Wright. The assessment will include effects associated with the potential use of STAA trucks. As appropriate, the truck assessment will be used as a source document for identifying truck-related impacts in the California Environmental Quality Act (CEQA) environmental impact report (EIR) for the Mariposa Industrial Park project and needed mitigation measures.

PUBLIC TRANSPORTATION

The San Joaquin Regional Transit District (SJRTD) is the primary provider of public transportation service in San Joaquin County, providing services to the Stockton metropolitan area, as well as inter-city, inter-regional, and rural transit service. SJRTD provides fixed-route, flexible fixed-route, and dial-a-ride services in Stockton. Each service is described in more detail below. (San Joaquin Regional Transit District 2021)

- Stockton Metropolitan Area Fixed Route Service operates 33 fixed routes within the Stockton metropolitan area.

- Intercity Fixed Route Service is provided by a route between Stockton and the Lodi Station in downtown Lodi connecting with Lodi Grapeline, Calaveras Transit, Delta Breeze, Sacramento South County Transit (SCT)/LINK buses.

- Interregional Commuter Service is a subscription commuter bus service. A total of eight routes connect San Joaquin County to Sacramento, the San Francisco Bay Area, and the Bay Area Rapid Transit (BART) system.

- SJRTD operates two Dial-a-Ride services. General Public Dial-A-Ride is a curb-to-curb service in areas not currently being served by RTD or other local transportation providers. Passengers are required to use other public transportation options currently available in their area. Stockton Metro Area Dial-A-Ride (SMA-ADA) is a curb-to-curb service operating within the Stockton Metropolitan Area for passengers with an Americans with Disabilities Act (ADA) Certification.

- Hopper Service is a deviated fixed-route service connecting Stockton, Tracy, Lodi, Manteca, Ripon, and Lathrop. The Metro Hopper provides nine routes. The County Hopper provides six routes.

SJRTD service is provided in the area west of SR 99. In vicinity of the Mariposa Road and Arch Road interchanges, service is provided by:

- Fixed routes 385 and 390,
- Hopper routes 91 and 95, and
- Express route 44.

PARK AND RIDE FACILITIES

Park and Ride lots are free parking facilities for commuters to use as a convenient meeting place for carpools, transit, and vanpools. Park and Ride lots in the Stockton area are listed below.

- the Calvary First Church on Kelley Drive north of Hammer Lane;
- the Hammer Crossing Shopping Center at Hammer Lane and Sampson Road;
- the Lifesong Church, 3034 Michigan Avenue; and
- Mariposa Road east of SR 99..

BICYCLE AND PEDESTRIAN SYSTEMS

The generally level terrain and mild weather make bicycling and walking viable forms of transportation in Stockton. The City of Stockton has an extensive network of bicycle facilities, including off-street trails and paths, as well as on-street bicycle lanes and routes. Many of these facilities also support pedestrian travel. According to Caltrans guidelines, bicycle facilities are generally divided into four categories:

- **Class I Bikeway (Bike Path).** A completely separate facility designated for the exclusive use of bicycles and pedestrians with vehicle and pedestrian cross-flow minimized.

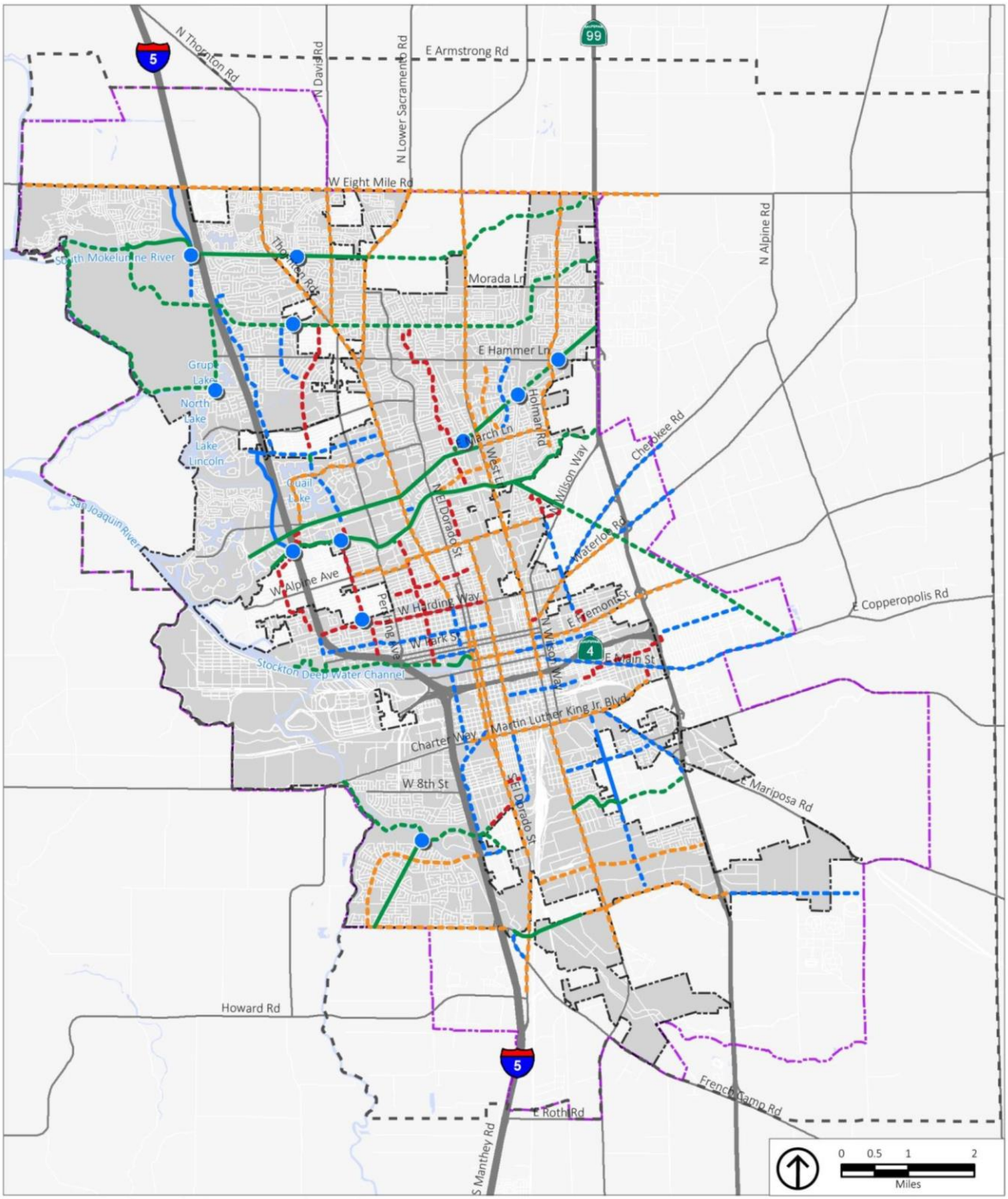
- **Class II Bikeway (Bike Lane).** A striped lane designated for the use of bicycles on a street or highway. Vehicle parking and vehicle/pedestrian cross-flow are permitted at designated locations.

- **Class III Bikeway (Bike Route).** A route designated by signs or pavement markings for bicyclists within the vehicular travel lane (i.e., shared use) of a roadway.

- **Class IV Bikeway (Separated Bikeway).** A bikeway for the exclusive use of bicycles and includes a separation required between the separated bikeway and the through vehicular traffic. The separation may include, but is not limited to, grade separation, flexible posts, inflexible posts, inflexible barriers, or on-street parking.

In the immediate vicinity of the project site, neither bicycle facilities nor sidewalks are present along either side of Mariposa Road between Munford Avenue and Austin Road.

The City of Stockton General Plan presents a map showing existing and planned bicycle facilities in the Stockton area, shown on **Figure 5**. **Figure 5** shows a planned Class II bike lane on Arch Road between SR 99 and Austin Road, and a planned Class II bike lane on Mariposa Road between Dr. Martin Luther King, Jr. Boulevard and SR 99.



Source: City of Stockton; Fehr & Peers, 2016; PlaceWorks, 2017.

Existing Bicycle Network
- Class I (Bike Path)
- Class II (Bike Lane)

Planned Bicycle Network
- Class I (Bike Path)
- Class II (Bike Lane)
- Class III (Bike Route)
- Class IV (Separated Bikeway)

- New Bridge
- General Plan Planning Area
- City Limit
- Sphere of Influence

ENVISION STOCKTON 2040 GENERAL PLAN

EXISTING AND PLANNED BICYCLE NETWORK

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figure 5

STUDY AREA INTERSECTIONS

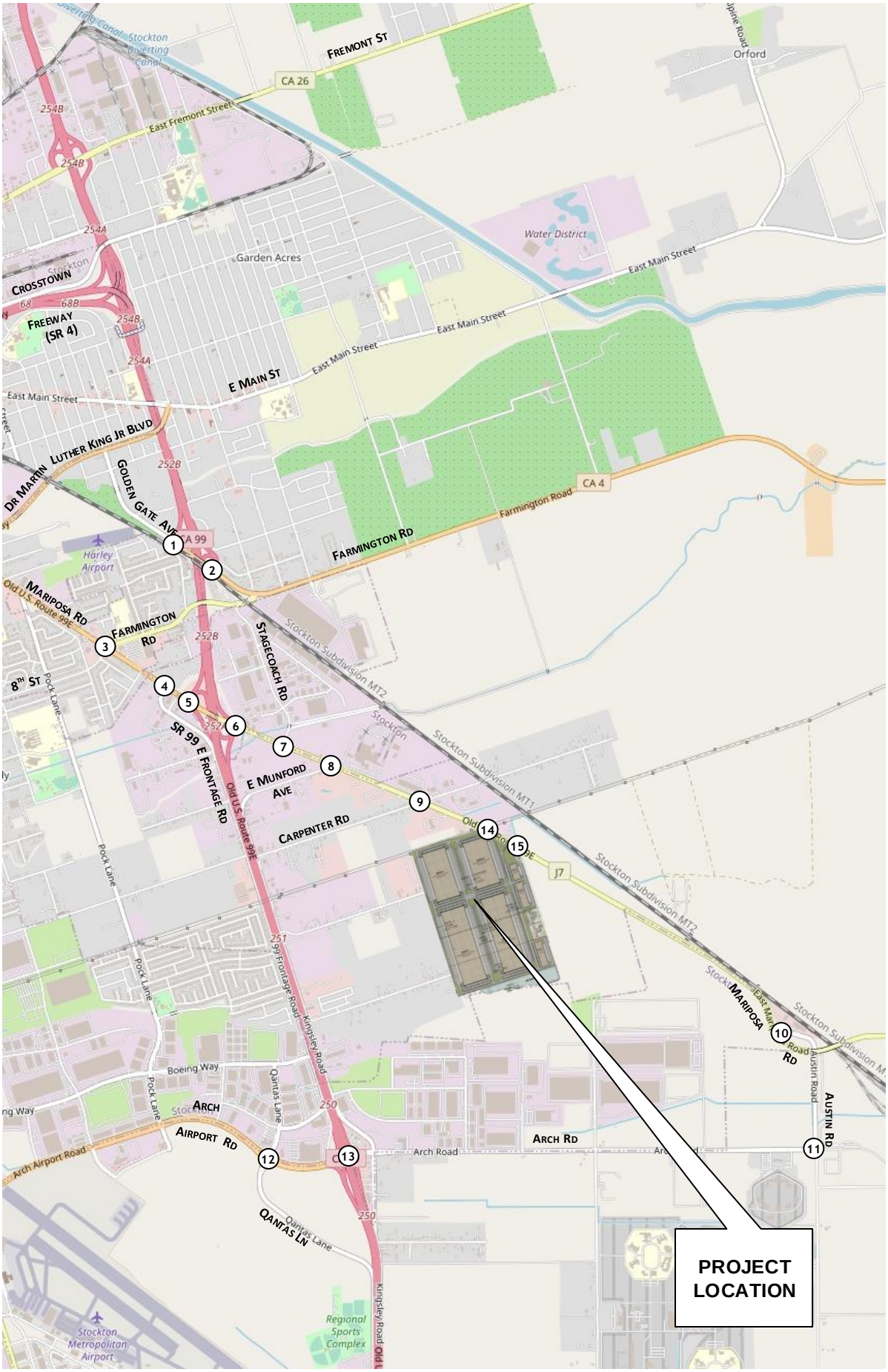
The traffic-related effects of the proposed project were assessed for this traffic impact study by analyzing traffic operations at intersections that would serve project-related travel. The following intersections were selected for analysis in consultation with City of Stockton staff (Moore pers. comm.).

1. Golden Gate Avenue & SR 99 Southbound Ramps
2. Golden Gate Avenue & SR 99 Northbound Ramps
3. Mariposa Road & 8th Street/Farmington Road
4. Mariposa Road & SR 99 West Frontage Road
5. Mariposa Road & SR 99 Southbound Ramps
6. Mariposa Road & SR 99 Northbound Ramps
7. Mariposa Road & Stagecoach Road
8. Mariposa Road & Munford Avenue
9. Mariposa Road & Carpenter Road
10. Mariposa Road & Austin Road
11. Arch Road & Austin Road
12. Arch-Airport Road & Qantas Lane
13. Arch Road & SR 99

The following two intersections would only be present with construction of the Mariposa Industrial Park project. As a result, these intersections were only analyzed under development conditions that include the proposed project:

14. Mariposa Road & Northwest Project Driveway
15. Mariposa Road & Southeast Project Driveway

The locations of study intersections are presented in **Figure 6**. The numbers listed above correspond to the intersection numbers on this figure.



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STUDY INTERSECTIONS

figure 6

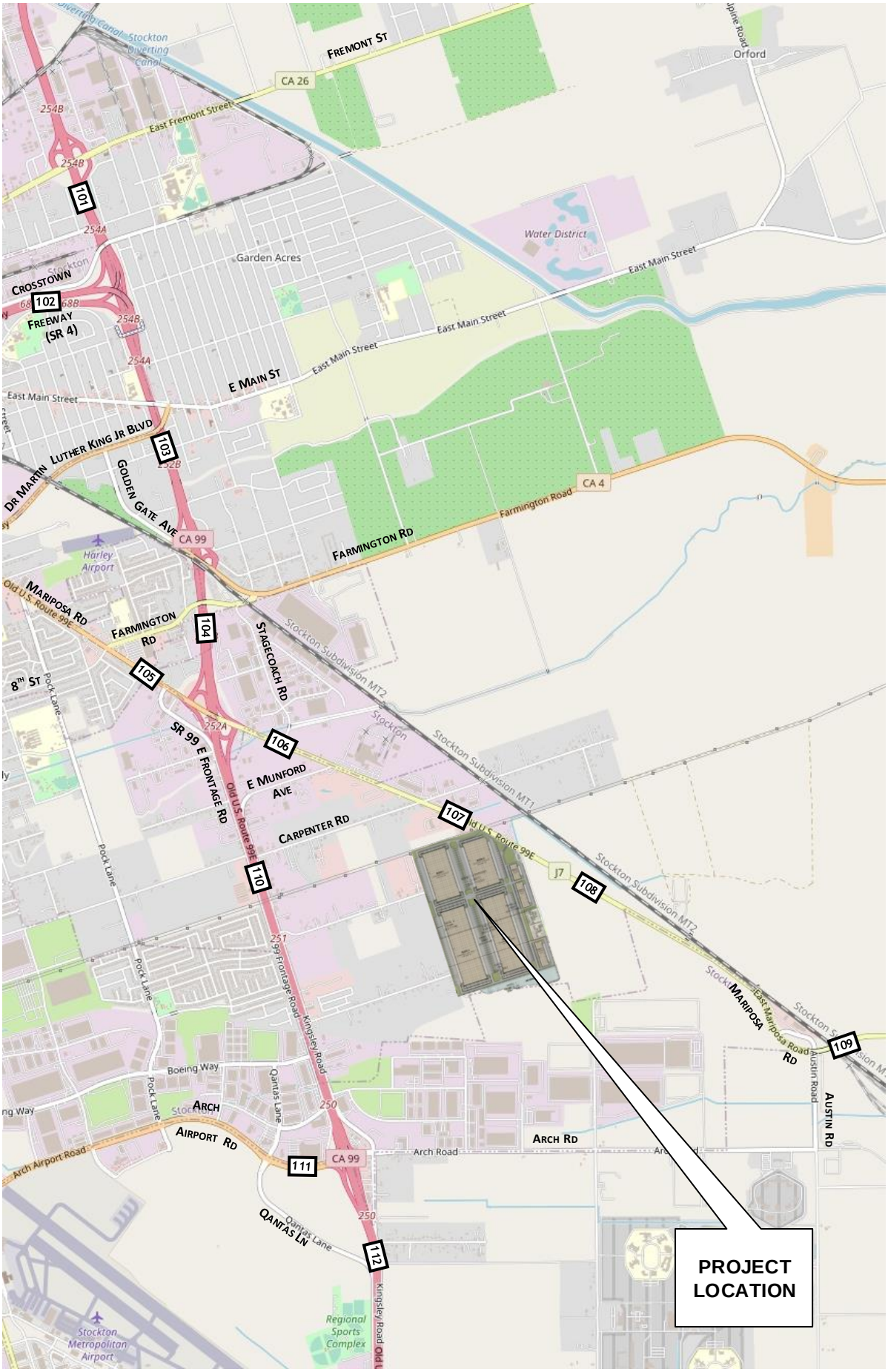
STUDY AREA ROADWAY SEGMENTS

In addition to analyzing intersections, the traffic-related effects of the proposed project on roadway segments were assessed for this traffic impact study. Major roadways adjacent to the project site, and roadways that would serve as major access routes, were analyzed. The following roadway segments were selected for analysis in consultation with City of Stockton staff (Moore pers. comm.).

101. SR 99 North of Crosstown Freeway (SR 4)
102. Crosstown Freeway West of SR 99
103. SR 99 Between Crosstown Freeway and Golden Gate Avenue
104. SR 99 Between Golden Gate Avenue and Mariposa Road
105. Mariposa Road Between SR 99 and 8th Street/Farmington Road
106. Mariposa Road, Between Carpenter Road and SR 99
107. Mariposa Road, Between the Project Site and Carpenter Road
108. Mariposa Road, Southeast of the Project Site
109. Mariposa Road, East of Austin Road
110. SR 99 Between Mariposa Road and Arch-Airport Road
111. Arch-Airport Road, Between Qantas Lane and SR 99
112. SR 99 South of Arch-Airport Road

The locations of study roadway segment are presented in **Figure 7**. The numbers listed above correspond to the roadway segment numbers on this figure. The numbers used for roadway segments are sequential, beginning with 101 to distinguish study roadway segments from study intersections listed previously.

The study roadway segments are specific to certain locations on the roadway network. However, in some cases, a roadway segment represents larger portions of roadway segments. For example, analysis results for roadway segment Mariposa Road, east of Austin Road, applies to Mariposa Road from Austin Road to Jack Tone Road. The descriptions of locations listed above, and used in this traffic impact study, are as specific as possible to minimize ambiguity.



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STUDY ROADWAY SEGMENTS

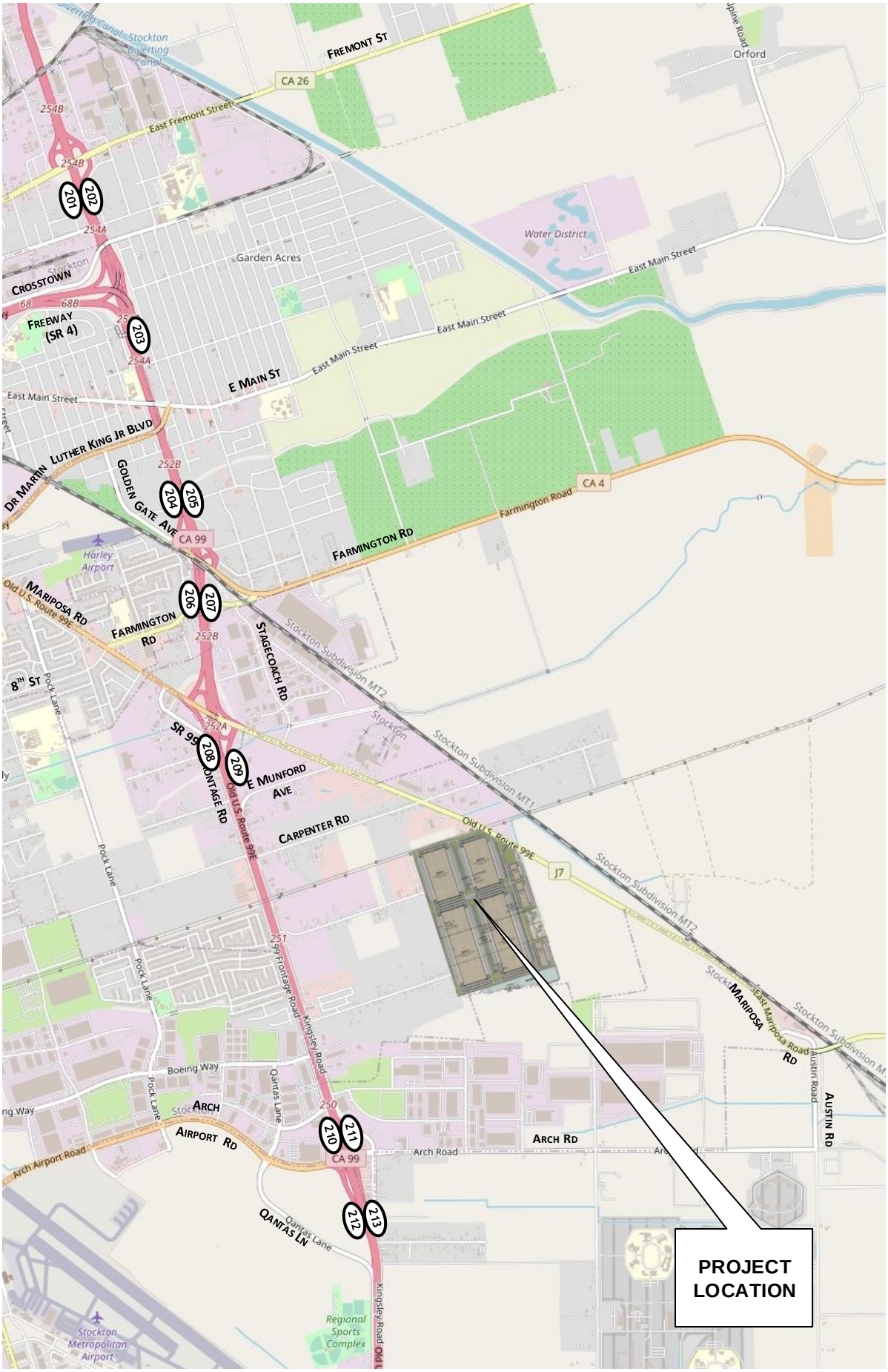
figure 7

STUDY AREA FREEWAY RAMP JUNCTIONS

In addition to analyzing intersections and roadway segments, the traffic-related effects of the proposed project on freeway ramp junctions were assessed for this traffic impact study. Ramp junctions that would serve as major access routes, and would be affected by project-related traffic, were analyzed. The following ramp junctions were selected for analysis in consultation with City of Stockton staff (Moore pers comm.):

201. SR 99 Southbound Weave Area Between Fremont Street and Crosstown Freeway
202. SR 99 Northbound Weave Area Between Crosstown Freeway and Fremont Street
203. SR 99 Northbound at Crosstown Freeway Off-Ramp Diverge
204. SR 99 at Golden Gate Avenue Southbound Off-Ramp Diverge
205. SR 99 at Golden Gate Avenue Northbound On-Ramp Merge
206. SR 99 Southbound Weave Area Between Golden Gate Avenue and Mariposa Road
207. SR 99 Northbound Weave Area Between Mariposa Road and Golden Gate Avenue
208. SR 99 at Mariposa Road Southbound On-Ramp (Slip) Merge
209. SR 99 at Mariposa Road Northbound Off-Ramp Diverge
210. SR 99 at Arch-Airport Road Southbound Off-Ramp Diverge
211. SR 99 at Arch-Airport Road Northbound On-Ramp Merge
212. SR 99 at Arch-Airport Road Southbound On-Ramp Merge
213. SR 99 at Arch-Airport Road Northbound Off-Ramp Diverge

The locations of freeway ramp junctions are presented in **Figure 8.** The numbers listed above correspond to the ramp junction numbers on this figure. The numbers used for ramp junctions are sequential, beginning with 201 to distinguish study ramp junctions from study intersections and study roadway segments listed previously.



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STUDY FREEWAY MERGE, DIVERGE, AND WEAVE AREAS

figure 8

METHODOLOGY

The following is a description of the analysis methods used in this traffic impact study.

Intersection Level of Service Analysis Procedures

Level of service (LOS) analysis provides a basis for describing existing traffic conditions and for evaluating the significance of project-related inconsistency with General Plan transportation policies. Level of service measures the quality of traffic flow and is represented by letter designations from A to F, with a grade of A referring to the best conditions, and F representing the worst conditions. The characteristics associated with the various LOS for intersections are presented in **Table 1**.

Level of service at both signalized and unsignalized intersections was analyzed using methods presented in the *Highway Capacity Manual*. Methods described in the *Highway Capacity Manual* were used to provide a basis for describing traffic conditions and for evaluating the significance of inconsistency with General Plan policies. As specified by City of Stockton staff (McDowell pers. comm.), methods from the *Highway Capacity Manual 2000* (Transportation Research Board, 2000) were used to analyze local roadway intersections. As specified in the *City of Stockton Transportation Impact Analysis Guidelines* (City of Stockton, 2003), the Traffix software analysis package was used to analyze local roadway intersections.

Caltrans District 10 recommends use of the *Highway Capacity Manual 6th Edition* (Transportation Research Board 2016) and the Synchro software package (Trafficware 2021). Therefore, as specified by City of Stockton staff, freeway ramp intersections were analyzed using *Highway Capacity Manual 6th Edition* methods and the Synchro software package.

The lengths of vehicle queues were also analyzed for this traffic impact study. Methods presented in the *Highway Capacity Manual 2000* and *Highway Capacity Manual 6th Edition* were used to analyze queuing. 95th percentile queue length values are presented in this traffic impact study.

Worksheets and output reports for the calculation of LOS and vehicles queues for all scenarios analyzed for this traffic impact study are presented in the technical appendix.

Table 1. Level of Service Definitions - Highway Capacity Manual 2010

Level of Service	Signalized Intersections	Unsignalized Intersections
A	Vehicle progression is exceptionally favorable or the cycle length is very short. Delay ≤ 10.0 seconds/vehicle	Little or no delay. Delay ≤ 10 seconds/vehicle
B	Vehicle progression is highly favorable or the cycle length is short. Delay > 10 seconds/vehicle and ≤ 20 seconds/vehicle	Short traffic delays. Delay > 10 seconds/vehicle and ≤ 15 seconds/vehicle
C	Vehicle progression is favorable or the cycle length is moderate. Individual cycle failures may begin to appear at this level. Delay > 20 seconds/vehicle and ≤ 35 seconds/vehicle	Average traffic delays. Delay > 15 seconds/vehicle and ≤ 25 seconds/vehicle
D	Vehicle progression is ineffective or the cycle length is long. Many vehicles stop and the individual cycle failures are noticeable. Delay > 35 seconds/vehicle and ≤ 55 seconds/vehicle	Long traffic delays. Delay > 25 seconds/vehicle and ≤ 35 seconds/vehicle
E	Vehicle progression is unfavorable and the cycle length is long. Individual cycle failures are frequent. Delay > 55 seconds/vehicle and ≤ 80 seconds/vehicle	Very long traffic delays, failure, extreme congestion. Delay > 35 seconds/vehicle and ≤ 50 seconds/vehicle
F	Vehicle progression is very poor and the cycle length is long. Most cycles fail to clear the vehicle queue. Delay > 80 seconds/vehicle	Intersection blocked by external causes. Delay > 50 seconds/vehicle

Source: Transportation Research Board 2010.

Signal Warrants Procedures

Traffic signal warrants are a series of standards which provide guidelines for determining if a traffic signal is appropriate. Signal warrant analyses are typically conducted at intersections of uncontrolled major streets and stop sign-controlled minor streets. If one or more signal warrants are met, signalization of the intersection may be appropriate. However, a signal should not be installed if none of the warrants are met, because installation of signals would increase delays on the previously-uncontrolled major street, resulting in an undesirable increase in overall vehicle delay at the intersection. Signalization may also increase the occurrence of certain types of accidents. Therefore, if signals are installed where signal warrants are not met, the detriment of increased accidents and overall delay may be greater than the benefit in traffic operating conditions on the single worst movement at the intersection. Signal warrants, then, provide an industry-standard basis for identifying when the adverse effect on the worst movement is substantial enough to warrant signalization.

For the analysis conducted for this traffic impact study, available data at unsignalized intersections are limited to a.m. and p.m. peak hour volumes. Thus, unsignalized intersections were evaluated using the Peak Hour Warrant (Warrant Number 3) from the California Department of Transportation document *California Manual on Uniform Traffic Control Devices* (California Department of Transportation 2014). This warrant was applied where the minor street experiences long delays in entering or crossing the major street for at least one hour of the day. The Peak Hour Warrant itself includes several components. Some of the components involve comparison of traffic volumes and vehicle delay to a series of standards. Another component involves comparison of traffic volumes to a nomograph.

Even if the peak hour warrant is met, a more detailed signal warrant study is recommended before a signal is installed. The more detailed study should consider volumes during the eight highest hours of the day, volumes during the four highest hours of the day, pedestrian traffic, and accident histories.

Signal warrant analysis worksheets for all stop sign-controlled intersections are presented in the technical appendix.

Roadway Segment Level of Service Analysis Procedures

Roadway segment LOS was analyzed for this traffic impact study based on methods used in the *Envision Stockton 2040 General Plan Update and Utility Master Plan Supplements Draft EIR* analysis (City of Stockton 2018b). These methods set maximum daily traffic volume thresholds for each LOS designation. The thresholds are shown in **Table 2**.

As shown in **Table 2**, the roadway segment LOS analysis method sets separate thresholds for:

- different types of facilities (i.e., freeways, arterials, and collectors);
- different number of lanes; and
- different area types (i.e., new versus existing).

Table 2. City of Stockton General Plan Roadway Segment Level of Service Thresholds

Facility Class	Number of Lanes	Area Type	Level of Service				
			A	B	C	D	E
Freeway	4	All Areas	27,600	45,200	63,600	77,400	86,400
	6	All Areas	41,400	67,800	95,400	116,100	129,600
	8	All Areas	55,200	90,400	127,200	154,800	172,800
	10	All Areas	69,000	113,000	159,000	193,500	216,000
Arterial	2	Existing	8,400	9,300	11,800	14,700	17,300
	2	New	10,000	11,100	14,000	17,500	20,600
	4	Existing	18,600	20,600	26,000	32,500	38,200
	4	New	23,300	25,800	32,600	40,700	47,900
	6	Existing	28,800	32,000	40,300	50,400	59,300
	6	New	33,300	37,000	46,600	58,300	68,600
	8	Existing	38,100	42,300	53,300	66,600	78,400
	8	New	41,100	45,700	57,600	72,000	84,700
Collector	2	Existing	6,400	7,100	9,000	11,300	13,200
	2	New	6,400	7,100	9,000	11,300	13,200
	4	Existing	17,600	19,600	24,700	30,900	36,300
	4	New	21,100	23,500	29,600	37,000	43,500

Source: Stockton General Plan Draft Environmental Impact Report (City of Stockton 2018b).
Note: The Stockton General Plan does not provide thresholds for local roads.

As described in City of Stockton 2018b:

> "Thresholds for arterials and collectors were based on Highway Capacity Manual calculations and were developed in conjunction with City staff at the time the current General Plan analysis was prepared. The arterial thresholds distinguish between roads in the existing urbanized area and those in new development areas; because arterials in new development areas can be designed to higher standards, with medians, exclusive turn lanes, and controlled access from adjacent uses, the capacities are higher than those in previously-developed areas. Thresholds for freeways were based on Highway Capacity Manual procedures relating levels of service to vehicle density ranges."

As specified in City of Stockton 2018b, the "Existing" area is generally located between I-5 and SR 99, south of Eight Mile Road. Eight Mile Road itself is considered a "New" arterial due to the lack of existing development in the area.

Freeway Ramp Junction Level of Service Analysis Procedures

Freeway ramp junctions are areas where freeway on-ramps merge into freeways, and where freeway off-ramps diverge from freeways. Weave areas are where an on-ramp and downstream off-ramp are connected by an auxiliary lane. Freeway ramp junctions which are considered to be potentially affected by project-related traffic were analyzed for this traffic impact study.

Freeway ramp junction areas were analyzed for this traffic impact study using methods described in Chapters 12 and 13 of the *Highway Capacity Manual 2010* (Transportation Research Board 2010). The *Synchro* software package does not analyze freeway ramp junction LOS. Therefore, the McTrans *HCS+ Highway Capacity Software* package was used to perform the ramp junction LOS calculations for this traffic impact study.

The *Highway Capacity Manual 2010* methods were used to analyze three types of freeway facilities: on-ramp junctions (merge), off-ramp junctions (diverge), and weave areas. The analysis of all three types of facilities involves calculating the density of vehicles on a freeway facility, expressed as passenger cars per mile per lane (pcpmpl). The LOS designation is based on the vehicle density. **Table 3** presents the relationship of vehicle density to LOS for ramp junctions and weave areas.

Freeway ramp operating conditions depend on traffic volumes and the ramp characteristics. These characteristics include the length and type of acceleration and deceleration lanes, the free-flow speed of ramps, the number of lanes, grade, and the types of facilities connected to the ramps.

The *Highway Capacity Manual 2010* reports LOS A through E for ramps and weaving sections in terms of density. When the volume using the facility exceeds capacity, the V/C ratio is greater than 1, and the *Highway Capacity Manual 2010* identifies the facility as overcapacity. While a density is not stated when the facility is over capacity, the freeway and ramp volumes for the facility are documented. For this traffic study, the freeway and ramp volumes are identified for all facilities where capacity has been exceeded.

Some of the freeway on-ramp facilities analyzed for this traffic impact study are equipped with ramp metering. The *Highway Capacity Manual 2010* methods used to analyze freeway on-ramp facilities does not take ramp metering into account (Transportation Research Board 2010). The objective and the effect of ramp metering is to smooth out traffic flows, reducing the magnitude of surges in traffic flow. As a result, the effect of ramp meters is to improve traffic operations, therefore improving ramp junction LOS. Because the ramp junction analysis presented in this traffic impact study does not take ramp metering into account, the LOS are considered to conservatively describe worse cast operating conditions.

Table 3. Level of Service Criteria for Freeway Merge / Diverge and Weaving Areas

Level of Service	Freeway Ramp Merge and Diverge: Vehicle Density	Freeway Ramp Merge and Diverge: Operating Characteristics	Freeway Weave Area Vehicle Density
A	Less than or equal to 10.	LOS A represents unrestricted operations. Density is low enough to permit smooth merging and diverging, with very little turbulence in the traffic stream.	Less than or equal to 10.
B	Greater than 10. Less than or equal to 20.	At LOS B, merging and diverging maneuvers become noticeable to through drivers, and minimal turbulence occurs.	Greater than 10. Less than or equal to 20.
C	Greater than 20. Less than or equal to 28.	At LOS C, speed within the influence area begins to decline as turbulence levels become much more noticeable. Both ramp and freeway vehicles begin to adjust their speeds to accomplish smooth	Greater than 20. Less than or equal to 28.
D	Greater than 28. Less than or equal to 35.	At LOS D, turbulence levels in the influence area become intrusive, and virtually all vehicles slow to accommodate merging and diverging. Some ramp queues may form at heavily used on-ramps, but freeway operation remains stable.	Greater than 28. Less than or equal to 35.
E	Greater than 35.	LOS E represents conditions approaching or at capacity. Small changes in demand or disruptions within the traffic stream can cause both ramp and freeway queues to form.	Greater than 35.
F	†V/C >1	LOS F defines operating conditions within queues that form on both the ramp and the freeway mainline when capacity is exceeded by demand.	†V/C >1

Note: Vehicle density is expressed as passenger car equivalents per mile per lane.
Source: Transportation Research Board 2010.
† = Volume exceeds capacity. Therefore, the LOS is F. V/C ratio shown in lieu of density.

Travel Forecasting

As part of the General Plan update process, the City of Stockton developed a series of travel demand forecasting simulation models. In consultation with City of Stockton staff (Moore, pers. comm.), travel forecasts for this traffic impact study are based on the City of Stockton General Plan travel demand forecasting simulation model (City of Stockton 2018b).

Travel models of the following two conditions were used to develop forecasts of future year traffic volumes for this traffic impact study:

- Existing Plus Approved Projects (EPAP), and
- 2040 Conditions with the General Plan.

The City's travel model produces forecasts of daily traffic volumes. The forecasts of daily volumes generated by the City's travel model are adequate for use in the analysis of roadway segment LOS, and are used for daily volume forecasts in this traffic impact study. However, the daily volumes generated by the traffic model are not, by themselves, adequate for use in the peak hour LOS analysis of study intersections.

Daily traffic volumes from the travel models were used to generate growth factors. These growth factors were applied to existing peak hour intersection turning movement traffic volumes. The development of future year intersection turning movement traffic volumes requires that the turning movements at each intersection "balance". To achieve the balance, inbound traffic volumes must equal the outbound traffic volumes, and the volumes must be distributed among the various left-turn, through, and right-turn movements at each intersection. The "balancing" of future year intersection turning movement traffic volumes was conducted using methods described in the Transportation Research Board's (TRB's) National Cooperative Highway Research Program (NCHRP) Report 255, *Highway Traffic Data for Urbanized Area Project Planning and Design* (Transportation Research Board 1982). The NCHRP 255 method applies the desired peak hour directional volumes to the intersection turning movement volumes, using an iterative process to balance and adjust the resulting forecasts to match the desired peak hour directional volumes.

LEVEL OF SERVICE AND SIGNIFICANCE THRESHOLDS

Significance thresholds are used in California Environmental Quality Act (CEQA) environmental documents to identify when the impacts of a project should be considered significant. Significance thresholds are the criteria used to determine the significance of impacts.

The *City of Stockton Traffic Impact Analysis Guidelines* (City of Stockton 2003) presents the methods, assumptions and significance thresholds specified by the City of Stockton for use in preparing traffic impact studies. In general, the methods, assumptions and significance threshold presented in the guidelines are applied in this traffic impact study. It is important to note the significance thresholds specified in the guidelines are based on policies presented in the City General Plan. More specifically, the General Plan policies define ranges of LOS considered to

be acceptable and unacceptable. The guidelines then use the General Plan policy ranges of LOS to identify whether a project impact is less than significant or significant.

Level of Service and Vehicle Miles Traveled

In the *City of Stockton Traffic Impact Analysis Guidelines*, the impacts of a project on LOS are an important factor in determining whether a project has a significant impact. However, recent changes to CEQA have changed how lead agencies use LOS in determining whether a project has a significant impact on transportation. As noted in the California Governor's Office of Planning and Research (OPR) document *Technical Advisory on Evaluating Transportation Impacts in CEQA* (California Governor's Office of Planning and Research 2018),

> "Senate Bill 743 (Steinberg, 2013), which was codified in Public Resources Code section 21099, required changes to the guidelines implementing CEQA (CEQA Guidelines) (Cal. Code Regs., Title 14, Div. 6, Ch. 3, § 15000 et seq.) regarding the analysis of transportation impacts. . . OPR has proposed, and the California Natural Resources Agency (Agency) has certified and adopted, changes to the CEQA Guidelines that identify vehicle miles traveled (VMT) as the most appropriate metric to evaluate a project's transportation impacts. With the California Natural Resources Agency's certification and adoption of the changes to the CEQA Guidelines, automobile delay, as measured by "level of service" and other similar metrics, generally no longer constitutes a significant environmental effect under CEQA. (Pub. Resources Code, § 21099, subd. (b)(3).)"

Notably, the *City of Stockton Traffic Impact Analysis Guidelines* was prepared before the recent changes to CEQA due to Senate Bill 743 (Steinberg 2013). As a result, the City guidelines specify use of LOS in determining whether a project has a significant impact. Consistent with the approach described in the OPR *Technical Advisory on Evaluating Transportation Impacts in CEQA*, LOS will not be used in this traffic impact study as a basis for identifying significant impacts. Rather, the methods, assumptions and significance thresholds presented in the City guidelines are used to determine whether the project is consistent or inconsistent with General Plan policies on LOS, and whether the magnitude of inconsistency should be considered significant or less than significant.

General Plan Policy Consistency Criteria

As noted immediately above, in this traffic impact study the significance of the proposed project's inconsistency with General Plan policies is based on a determination of whether resulting LOS is considered acceptable. A project's inconsistency with General Plan policies is considered significant if implementation of the project would result in LOS changing from levels considered acceptable to levels considered unacceptable, or if the project would substantially worsen already unacceptable LOS.

The *City of Stockton Transportation Impact Analysis Guidelines* notes that:

> "The City of Stockton's General Plan has a LOS 'D' standard for its roadway system. Intersections and roadway segments operating at LOS 'A', 'B', 'C', or 'D' conditions are considered acceptable, while those operating at LOS 'E' or 'F' conditions are considered unacceptable.
>
> "For a City intersection, a transportation impact for a project is considered significant if the addition of project traffic would cause an intersection that would function at LOS 'D' or better without the Project to function at LOS 'E' or 'F'.
>
> "For City intersections with a LOS 'E' or 'F' conditions without the project, a transportation impact for a project is considered significant if the addition of project traffic causes an increase of greater than 5 seconds in the average delay for the intersection."

Portions of the City's guidelines do not specifically address criteria used to quantify changes in operating conditions on roadway segments or freeway ramp junctions. For this traffic impact study, the City's significance thresholds described above are also applied to roadway segments and freeway ramp junctions. As shown in **Table 1**, **Table 2** and **Table 3**, LOS at intersections is measured in seconds of delay, LOS on roadway segments is measured in traffic volume, and LOS at ramp junctions is measured in vehicle density. Therefore, for roadway segments and ramp junctions already at LOS E or F, an increase of greater than five seconds of delay cannot be identified. Because roadway segment LOS is measured in traffic volumes, rather than seconds of delay, an increase in traffic volumes is used in this traffic impact study, in lieu of the threshold of five seconds of delay. At ramp junctions when the demand exceeds capacity, an increase in density is not identified; however, the densities of each area are based upon the volume. Therefore, for this traffic impact study, if a roadway segment or ramp junction operates at LOS E or F without the project, the inconsistency with General Plan policies is considered significant if the addition of project traffic causes an increase of greater than five percent in traffic volumes.

The *Envision Stockton 2040 General Plan* (City of Stockton 2018a) notes:

> "The City of Stockton strives to maintain LOS D or better for peak hour intersection and daily roadway segment operations. However, in the Downtown and other areas, exceptions to this standard are permissible to support other goals, such as encouraging safe travel by other modes of transportation than the car. The City can use VMT and LOS to support non-auto transportation modes, with the ultimate goal of maintaining and enhancing a complete roadway network that serves all travel modes in a balanced and equitable way."

This section of the City General Plan lists more than 14 facilities as exceptions to the LOS D policy standard, and lists the applicable standard. Among the facilities listed as exceptions is "Eighth Street, Airport Way to Mariposa Road – LOS E". Consistent with the City General Plan, a LOS E standard is applied in this traffic impact study to the intersection of Mariposa Road & 8th Street/Farmington Road.

SR 99 is a facility under the jurisdiction of Caltrans. While the City General Plan identifies LOS E and LOS F as standards for portions of the SR 99 corridor, Caltrans has set a LOS D standard (Dumas, pers. comm.). At the direction of City staff, because SR 99 is under the jurisdiction of Caltrans, LOS D is used as the LOS standard for the SR 99 corridor in this traffic impact study; LOS E and F are considered unacceptable. In this traffic impact study, the Caltrans LOS D standard is applied to mainline freeway LOS, ramp junction LOS, and to LOS at freeway interchange intersections.

In this traffic impact study, a project's inconsistency with General Plan policies will be considered significant if:

- the project would result in traffic operating conditions changing from an acceptable LOS to an unacceptable LOS, or

- when LOS without the project is already unacceptable, the project would result in a substantial degradation of traffic operating conditions (e.g., an increase of more than five seconds of delay at an intersection, an increase of more than five percent in traffic volume on a roadway segment, or an increase of more than five percent in the freeway and ramp volumes for ramps).

Maximum Feasible Roadway Improvements

This traffic impact study identifies traffic operating conditions that would result from background development of land use not related to the proposed project, and would result from development of the proposed project. In some cases, this development would result in unacceptable LOS. If unacceptable LOS is forecasted, feasible roadway improvements needed to achieve acceptable LOS are identified.

For this traffic impact study, maximum feasible sizes of roadway facilities have been established. For intersections, the maximum feasible size is considered to be seven approach lanes on each leg of an intersection. For example, two left-turn lanes, four through lanes, and a right-turn lane (a total of seven lanes) is considered to be the maximum feasible size on an intersection approach. Existing land use development, physical or right-of-way constraints, and the relative benefits of additional roadway improvements in some cases result in a smaller approach being considered the maximum feasible size.

For SR 99 in the study area for this traffic impact study, the Caltrans *Transportation Concept Report State Route 99* (California Department of Transportation 2017) identifies a "conceptual facility" width of eight lanes (four in each direction) by the year 2040. Therefore, an eight-lane width is considered to be the maximum feasible size for SR 99.

It is technically possible to construct roadway facilities larger than the maximum feasible sizes applied in this traffic impact study. However, for the following reasons, this traffic impact study considers these sizes to be not feasible.

- **Pedestrian Safety** – The amount of time required by pedestrians to walk across an intersection leg with more than seven approach lanes is considered excessive.

The possibility of signal lights changing before pedestrians are able to exit the intersection is considered unacceptably high.

- **Vehicle Safety** – When a vehicle enters an intersection on the yellow light, the amount of time required for this subject vehicle to depart overly-large intersections is considered excessive. The possibility of other vehicles on conflicting movements entering the intersection before the subject vehicle has departed is considered unacceptably high.

- **Intersection Efficiency** – The timing of signal lights may be modified to provide protection for pedestrians and vehicles at overly-large intersections. However, the amount of time needed for pedestrians and vehicles to exit an overly-large intersection becomes excessive. This results in the intersection operating with an unacceptable degree of inefficiency.

- **Engineering Constraints** – Overhead structures and equipment are required to traverse both intersection approaches and freeway lanes. Overhead structures involve primarily overcrossing roadways. Equipment includes signal light support structures, power lines, and signs. With larger facilities, the size and resulting cost of these structures and equipment becomes unacceptable.

VEHICLE MILES TRAVELED SIGNIFICANCE THRESHOLD

The City of Stockton General Plan (City of Stockton 2018a) Policy TR-4.3 addresses the topic of vehicle miles traveled (VMT) as an impact in CEQA documents. The policy states,

> "Use the threshold recommended by the California Office of Planning and Research for determining whether VMT impacts associated with land uses are considered significant under State environmental analysis requirements."

The OPR *Technical Advisory on Evaluating Transportation Impacts in CEQA* (State of California 2018) provides recommended thresholds for determining the significance of VMT impacts associated with land use development projects. Specific thresholds are provided for residential, office, and retail commercial types of development. A specific threshold is not provided for industrial land use, like the Mariposa Industrial Park project and is, therefore, considered not applicable for this traffic impact study.

The City of Stockton General Plan Policy Action TR-4.3A states,

> "Establish a threshold of 15 percent below baseline VMT per capita to determine a significant transportation impact under the California Environmental Quality Act."

The 15 percent threshold in General Plan Action TR-4.3A is similar to thresholds for residential and office land use types recommended by OPR in the *Technical Advisory on Evaluating Transportation Impacts in CEQA*, and is used in this traffic impact study to determine the significance of VMT impacts associated with the Mariposa Industrial Park project.

Consistent with General Plan Action TR4.3A, if a project would result in a 15 percent or more reduction of vehicle travel, a project is considered to have a less-than-significant impact. A project that would not result in a reduction of 15 percent or more is considered to have a significant impact. The percent change in vehicle travel is determined by comparing project-related travel to the amount of travel that would occur without approval of the proposed project. In this traffic impact study, vehicle travel associated with the Mariposa Industrial Park project will be compared to vehicle travel associated with the land uses currently designated in the City of Stockton General Plan.

At the time the analysis presented in this traffic impact study commenced, the City of Stockton had not adopted guidelines for analyzing VMT or determining the significance of a project's impact on VMT. The City was in the process of developing and adopting guidelines, but the process was not completed. The VMT analysis presented in this traffic impact study is not intended to pre-empt the City process of developing and adopting VMT guidelines. Rather, the analysis presented in this traffic impact study is intended to be a good-faith effort at disclosing and identifying the VMT impacts of the Mariposa Industrial Park project based on currently available data and guidance.

EXISTING INTERSECTION TRAFFIC VOLUMES AND LEVELS OF SERVICE

The following is a description of existing traffic operating conditions at the study intersections.

Traffic Volumes

Since the outbreak of the Covid-19 pandemic, traffic volumes have at times been lower than normal. With the pandemic, places of employment, schools, social and recreational gatherings, sports events, restaurants, and many other types of activities have been substantially reduced or prohibited. As a result, the use of new traffic volume count data collected during the pandemic could result in volumes that are unrepresentatively low. To ensure data used in this traffic study are representative, the traffic analysis of the Mariposa Industrial Park project is based on both existing traffic volume data collected before the outbreak of Covid-19, and current new traffic volume count data collected since the outbreak. Data collected before the outbreak of Covid-19 are from previously-prepared traffic analyses and from StreetLight Data (https://www.streetlightdata.com/). Data from new traffic volume count data collected since the outbreak were used to validate data collected before the outbreak of Covid-19. This approach was applied to intersection traffic volumes, described immediately below. This approach was also applied to roadway segment and ramp junction traffic volumes, described later in this traffic impact study.

At the following study intersections, turning movement count data collected for the *Public Review Draft Environmental Impact Report for the Sanchez-Hoggan Annexation* (City of Stockton 2020) were used in this traffic impact study.

4. Mariposa Road & SR 99 West Frontage Road
5. Mariposa Road & SR 99 Southbound Ramps
6. Mariposa Road & SR 99 Northbound Ramps
10. Mariposa Road & Austin Road
11. Arch Road & Austin Road
12. Arch-Airport Road & Qantas Lane
13. Arch Road & SR 99

Traffic count data collected for the intersections listed above are presented in the technical appendix. The peak period intersection turning movement count data were collected on Thursday March 7, 2019. The data were collected during the 7:00 a.m. to 9:00 a.m. period, and the 4:00 p.m. to 6:00 p.m. period. Volumes during the highest one-hour period were used for this traffic impact study. It should be noted that a since the outbreak of the Covid-19 pandemic, a south leg has been constructed at intersection 10, Mariposa Road & Austin Road. However, as noted previously, traffic volumes during the pandemic could be unrepresentatively low. To ensure representative data are presented in this traffic impact study, conditions before the outbreak of the Covid-19 pandemic are used.

At the following study intersections, pre-Covid-19 intersection turning movement count data were collected for weekday periods between 7:00 a.m. and 9:00 a.m., and between 4:00 p.m. and 6:00 p.m. from StreetLight Data. These data represent Tuesday through Thursday volumes collected during six non-holiday months between March 2019 and February 2020. Traffic volume count data collected from StreetLight Data are presented in the technical appendix.

1. Golden Gate Avenue & SR 99 Southbound Ramps
2. Golden Gate Avenue & SR 99 Northbound Ramps
3. Mariposa Road & 8th Street/Farmington Road
7. Mariposa Road & Stagecoach Road
8. Mariposa Road & Munford Avenue
9. Mariposa Road & Carpenter Road

To validate the traffic volumes collected from StreetLight Data, new count data were also collected on Tuesday January 12, 2021 at the intersections listed above during the 7:00 a.m. to 9:00 a.m. morning peak period and the 4:00 p.m. to 6:00 p.m. evening peak. The new count data were used to adjust volumes from StreetLight Data at the following intersection legs:

- the southwest leg of the intersection of Mariposa Road & Stagecoach Road,
- the southwest leg of the intersection of Mariposa Road & Carpenter Road, and
- the northeast leg of the intersection of Mariposa Road & Carpenter Road.

Traffic volumes on the intersection legs listed above are relatively low and the intersection turning movement volumes from StreetLight Data were considered to be unrepresentative. The new count data collected on Tuesday January 12, 2021 were used to adjust the turning movement volumes on the intersection legs listed above.

Using the approach described above results in volumes applied in this traffic study which compensate for decreases caused by the Covid-19 pandemic.

Figure 9 and **Figure 10** present the existing lane configurations and existing a.m. peak hour and p.m. peak hour traffic volumes at the existing study intersections.

Intersection turning movement count data collected for this traffic impact study were disaggregated to light-duty vehicles (e.g., automobiles) and heavy vehicles (e.g., heavy-duty trucks). These data were used to estimate heavy vehicle percentage at each study intersection. The percentages are shown in **Table 4**, and were used in the intersection LOS analysis presented in this traffic impact study.

Intersection Levels of Service

Table 5 presents a summary of existing a.m. peak hour and p.m. peak hour LOS at the 13 existing study intersections. The worksheets presenting the calculation of LOS are included in the technical appendix.

All of the 13 existing study intersections operate at acceptable LOS C or better during both the a.m. peak hour and the p.m. peak hour. No improvements are needed at these intersections to achieve acceptable LOS.

EXISTING ROADWAY SEGMENT TRAFFIC VOLUMES AND LEVELS OF SERVICE

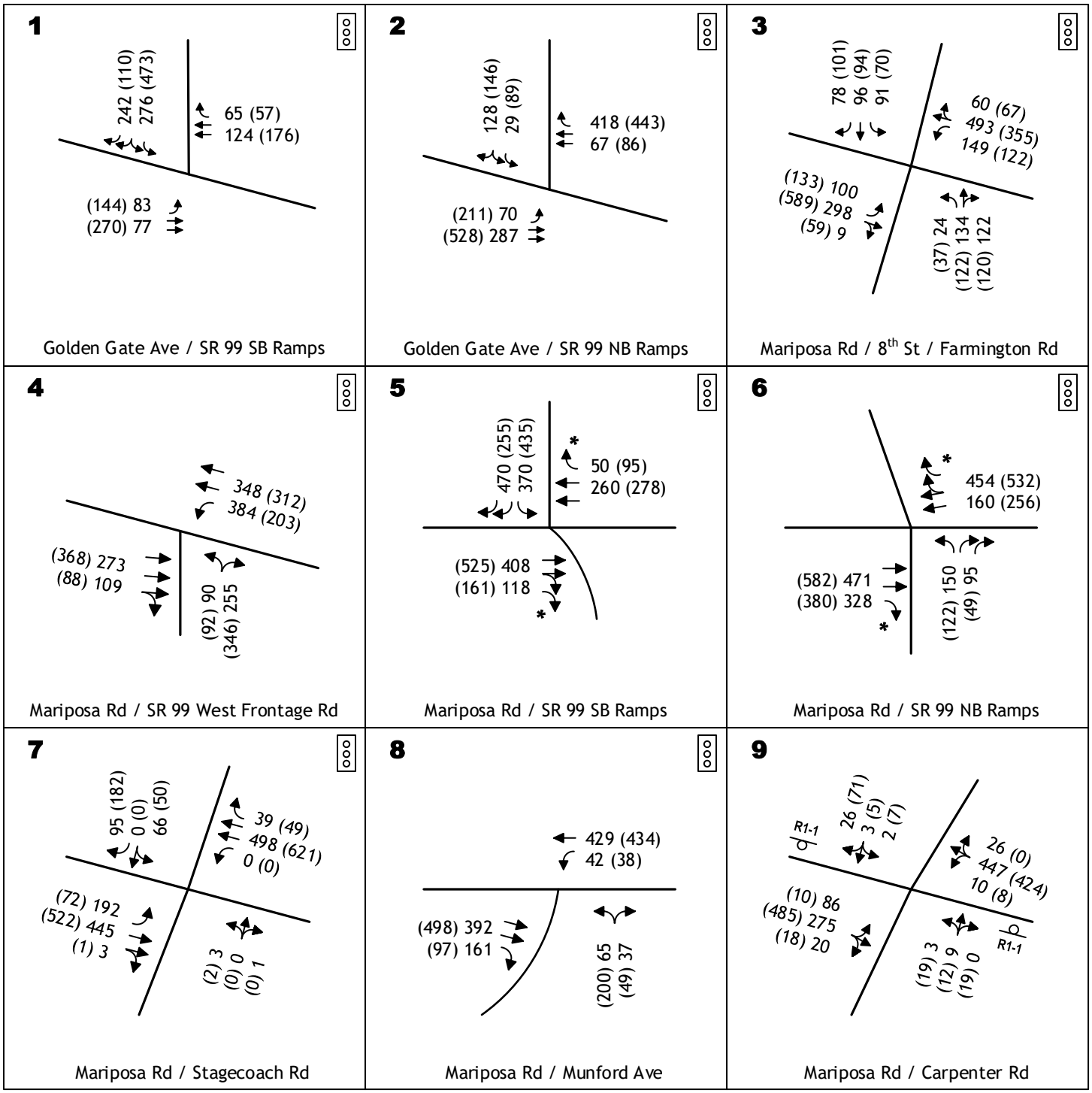
The following is a description of existing traffic operating conditions on study roadway segments.

Roadway Segment Traffic Volumes

As described in more detail previously in this traffic impact study, to ensure data used in this study are representative, the traffic analysis of the Mariposa Industrial Park project is based on both existing traffic volume data collected before the outbreak of Covid-19, and current new traffic volume count data collected since the outbreak.

Roadway segment traffic volume count data were collected for 24-hour periods for the *Public Review Draft Environmental Impact Report for the Sanchez-Hoggan Annexation* (City of Stockton 2020). For the following roadway segments, the data were collected on Wednesday March 13, 2019; and Thursday March 21, 2019. Traffic count data collected for the following roadway segments were used in this traffic impact study, and are presented in the technical appendix:

106. Mariposa Road, Between Carpenter Road and SR 99
107. Mariposa Road, Between the Project Site and Carpenter Road
108. Mariposa Road, Southeast of the Project Site
109. Mariposa Road, East of Austin Road
111. Arch-Airport Road, Between Qantas Lane and SR 99



Legend

XX	AM Peak Hour Volume
(XX)	PM Peak Hour Volume
R1-1	Stop Sign
	Signalized Intersection
*	"Free" Right Turn
– – – –	Future Roadway

NORTH

N.T.S.

EXISTING INTERSECTION TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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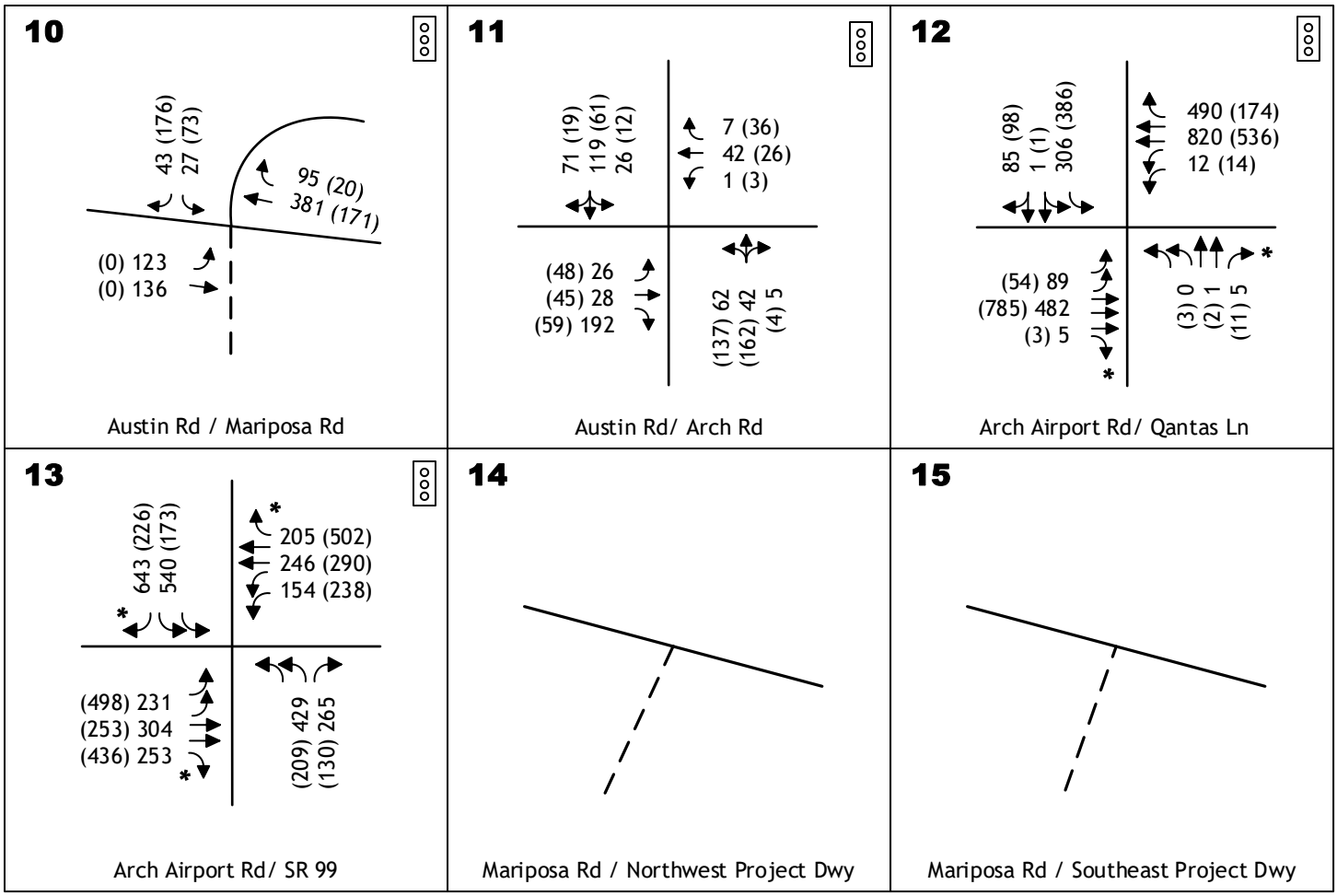
figure 9



Legend

XX	AM Peak Hour Volume
(XX)	PM Peak Hour Volume
R1-1	Stop Sign
	Signalized Intersection
*	"Free" Right Turn
– – – –	Future Roadway

NORTH

N.T.S.

EXISTING INTERSECTION TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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figure 10

Table 4. Heavy Truck Percentage

	Intersection	AM Peak Hour	PM Peak Hour
1	Golden Gate Avenue & SR 99 Southbound Ramps	6%	4%
2	Golden Gate Avenue & SR 99 Northbound Ramps	7%	3%
3	Mariposa Road & 8th Street/Farmington Road	9%	3%
4	Mariposa Road & SR 99 West Frontage Road	5%	5%
5	Mariposa Road & SR 99 Southbound Ramps	7%	6%
6	Mariposa Road & SR 99 Northbound Ramps	9%	7%
7	Mariposa Road & Stagecoach Road	21%	10%
8	Mariposa Road & Munford Avenue	20%	9%
9	Mariposa Road & Carpenter Road	20%	8%
10	Mariposa Road & Austin Road	10%	6%
11	Arch Road & Austin Road	20%	20%
12	Arch-Airport Road & Qantas Lane	8%	9%
13	Arch Road & SR 99	9%	9%
14	Mariposa Road & Northwest Project Driveway	20%	8%
15	Mariposa Road & Southeast Project Driveway	20%	8%

Source: Peak hour intersection traffic volume count data.

Table 5. Intersection Level of Service - Existing Conditions

	Study Intersections	Inters. Control	Signal Warrant Met?	AM Peak LOS	AM Peak Delay	PM Peak LOS	PM Peak Delay
1	Golden Gate Avenue & SR 99 Southbound Ramps	Signal		B	13.3	B	15.2
2	Golden Gate Avenue & SR 99 Northbound Ramps	Signal		B	13.6	B	13.9
3	Mariposa Road & 8th Street/Farmington Road	Signal		C	34.0	C	32.4
4	Mariposa Road & SR 99 West Frontage Road	Signal		B	17.8	B	17.1
5	Mariposa Road & SR 99 Southbound Ramps	Signal		A	9.5	B	10.1
6	Mariposa Road & SR 99 Northbound Ramps	Signal		A	9.1	A	9.0
7	Mariposa Road & Stagecoach Road	Signal		B	18.4	B	17.3
8	Mariposa Road & Munford Avenue	Signal		B	11.7	B	17.7
9	Mariposa Road & Carpenter Road	Unsig	No	A	1.8	A	2.4
10	Mariposa Road & Austin Road	Signal		B	15.1	B	16.6
11	Arch Road & Austin Road	Signal		C	28.8	C	27.2
12	Arch-Airport Road & Qantas Lane	Signal		B	16.9	B	17.2
13	Arch Road & SR 99	Signal		B	18.4	B	17.0
14	Mariposa Road & Northwest Project Driveway	- -		- -	- -	- -	- -
15	Mariposa Road & Southeast Project Driveway	- -		- -	- -	- -	- -

Notes: LOS = Level of Service. "Inters. Control" = Type of intersection control.
"Signal" = Signalized light control. "Unsig" = Unsignalized stop-sign control.
Delay is measured in seconds per vehicle.
Per City of Stockton guidelines, intersection average delay is reported for all intersections, including unsignalized intersections.
Dashes ("- -") indicate intersection not present under this scenario.

At study roadway segment 105, Mariposa Road between SR 99 and 8th Street/Farmington Road, pre-Covid-19 traffic volume count data for weekday 24-hour periods were collected from StreetLight Data. These data represent Tuesday through Thursday volumes collected during six non-holiday months between March 2019 and February 2020. Traffic volume count data collected from StreetLight Data are presented in the technical appendix.

To validate the 24-hour roadway segment traffic volume data collected from StreetLight Data, new count data were also collected on Tuesday January 12, 2021 on Mariposa Road between SR 99 and 8th Street/Farmington Road.

For the following freeway mainline roadway segments, 24-hour traffic volume data were collected from the Caltrans Traffic Census Program Internet Website (California Department of Transportation 2021) and applied in this traffic impact study.

101. SR 99 North of Crosstown Freeway (SR 4)
102. Crosstown Freeway (SR 4) West of SR 99
103. SR 99 Between Crosstown Freeway (SR 4) and Golden Gate Avenue
104. SR 99 Between Golden Gate Avenue and Mariposa Road
110. SR 99 Between Mariposa Road and Arch-Airport Road
112. SR 99 South of Arch-Airport Road

Table 6 presents the existing daily traffic volumes for study roadway segments.

Roadway Segment Levels of Service

Table 6 presents a summary of existing LOS on the 12 study roadway segments. 11 of the study roadway segments operate at acceptable LOS C or better. No improvements are needed on these 11 roadway segments to achieve acceptable LOS.

105. Mariposa Road Between SR 99 and 8th Street/Farmington Road

Under Existing Conditions, this roadway segment operates at LOS E. This LOS is considered unacceptable. The following improvement is recommended:

- Widen the portions of this roadway segment which are one lane in each direction to two lanes in each direction.

Table 6. Roadway Segment Level of Service - Existing Conditions

Roadway Segment	Number of Lanes	Daily Capacity	Daily Volume	V/C Ratio	Level of Service
101. SR 99 - North of Crosstown Freeway (SR 4)	8	172,800	95,000	0.55	C
102. Crosstown Freeway - West of SR 99	8	172,800	104,900	0.61	C
103. SR 99 - Between Crosstown Fwy and Golden Gate Avenue	8	172,800	94,000	0.54	C
104. SR 99 - Between Golden Gate Ave and Mariposa Rd	8	172,800	92,300	0.53	C
105. Mariposa Road - Between SR 99 and 8th St./Farmington Rd	2	17,300	16,295	0.94	E
106. Mariposa Road - Between Carpenter Road and SR 99	2	17,300	10,034	0.58	C
107. Mariposa Road - Between the Project Site and Carpenter Road	2	17,300	9,042	0.52	B
108. Mariposa Road - Southeast of the Project Site	2	17,300	9,042	0.52	B
109. Mariposa Road - East of Austin Road	2	17,300	8,149	0.47	A
110. SR 99 - Between Mariposa Road and Arch-Airport Road	6	129,600	80,600	0.62	C
111. Arch-Airport Road - Between Qantas Lane and SR 99	6	59,300	26,889	0.45	A
112. SR 99 - South of Arch-Airport Road	6	129,600	85,000	0.66	C

Notes: "SR" = State Route. "V/C Ratio" = volume-to-capacity ratio.

A summary of LOS with recommended improvements is presented in **Table 7**. With this recommended improvement, this roadway segment would operate at LOS A. This LOS is considered acceptable.

Table 7. Roadway Segment Level of Service - Existing Conditions With Recommended Improvements

Roadway Segment	Number of Lanes	Daily Capacity	Daily Volume	V/C Ratio	Level of Service
105. Mariposa Road - Between SR 99 and 8th St./Farmington Rd	4	38,200	16,295	0.43	A

Notes: "SR" = State Route. "V/C Ratio" = volume-to-capacity ratio.

EXISTING RAMP JUNCTION TRAFFIC VOLUMES AND LEVELS OF SERVICE

The following is a description of existing traffic operating conditions at the study ramp junctions.

Ramp Junction Traffic Volumes

As described in more detail previously in this traffic impact study, to ensure data used in this study are representative, the traffic analysis of the Mariposa Industrial Park project is based on both existing traffic volume data collected before the outbreak of Covid-19, and current new traffic volume count data collected since the outbreak.

Traffic volume count data were collected for the following freeway ramp junctions for the *Public Review Draft Environmental Impact Report for the Sanchez-Hoggan Annexation* (City of Stockton 2020). These data are applied in this traffic impact study.

208. SR 99 at Mariposa Road Southbound On-Ramp (Slip) Merge
209. SR 99 at Mariposa Road Northbound Off-Ramp Diverge
210. SR 99 at Arch-Airport Road Southbound Off-Ramp Diverge
211. SR 99 at Arch-Airport Road Northbound On-Ramp Merge
212. SR 99 at Arch-Airport Road Southbound On-Ramp Merge
213. SR 99 at Arch-Airport Road Northbound Off-Ramp Diverge

At the following study ramp junctions, pre-Covid-19 count data were collected for weekday periods between 7:00 a.m. and 9:00 a.m., and between 4:00 p.m. and 6:00 p.m. from StreetLight Data. These data represent Tuesday through Thursday volumes collected during six non-holiday months between March 2019 and February 2020. Traffic volume count data collected from StreetLight Data are presented in the technical appendix.

201. SR 99 Southbound Weave Area Between Fremont Street and Crosstown Freeway
202. SR 99 Northbound Weave Area Between Crosstown Freeway and Fremont Street
203. SR 99 Northbound at Crosstown Freeway (SR 4) Off-Ramp Diverge
204. SR 99 at Golden Gate Avenue Southbound Off-Ramp Diverge
205. SR 99 at Golden Gate Avenue Northbound On-Ramp Merge
206. SR 99 Southbound Weave Area Between Golden Gate Avenue and Mariposa Road
207. SR 99 Northbound Weave Area Between Mariposa Road and Golden Gate Avenue

To validate the ramp junction traffic volume data collected from StreetLight Data, peak hour traffic volume data for freeway facilities were collected from the Caltrans PeMS database (http://pems.dot.ca.gov/). Data for Tuesdays, Wednesdays and Thursdays between February 4, 2020 and Thursday February 13, 2020 were used to validate the traffic volume data collected from StreetLight Data.

Figure 11 and **Figure 12** present the existing a.m. peak hour and p.m. peak hour traffic volumes at the existing ramp junctions.

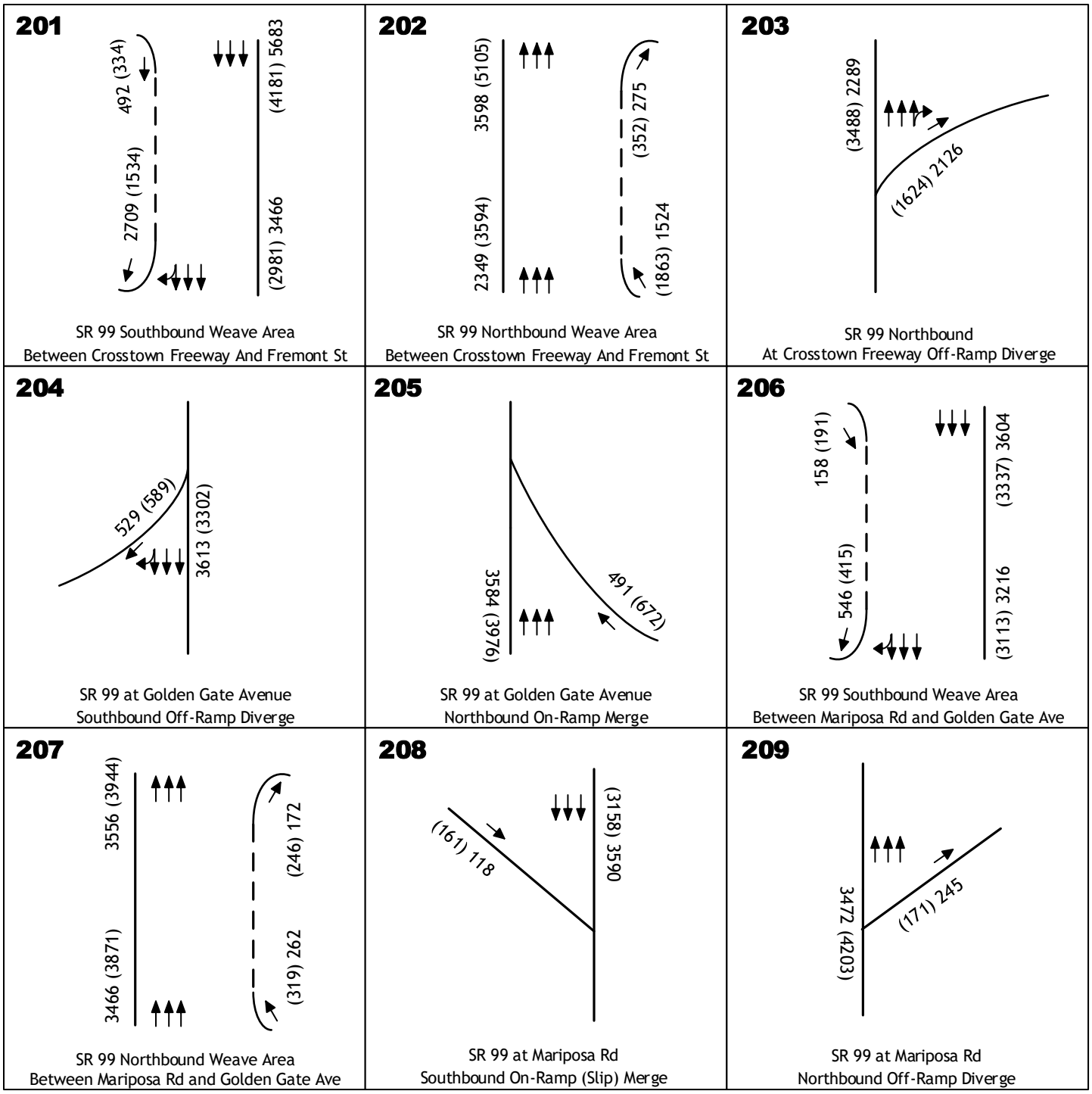
Ramp Junction Levels of Service

Table 8 presents a summary of existing a.m. peak hour and p.m. peak hour LOS at the 13 study ramp junctions. The worksheets presenting the calculation of LOS are included in the technical appendix.

12 of the 13 ramp junctions operate at acceptable LOS C or better during both the a.m. peak hour and p.m. peak hour. No improvements are needed at these 12 ramp junctions to achieve acceptable LOS.

201. SR 99 Southbound Weave Area Between Fremont Street and Crosstown Freeway

Under Existing Conditions, the SR 99 southbound weave area between the Fremont Street interchange and the Crosstown Freeway interchange operates at LOS E during the a.m. peak hour. This LOS is considered unacceptable. Existing land use adjacent to SR 99 and the location of the two interchanges results in improvements to the weave area being considered not feasible. As a result, no improvements are recommended to improve LOS at this location.



EXISTING FREEWAY RAMP MERGE, DIVERGE, AND WEAVE AREA TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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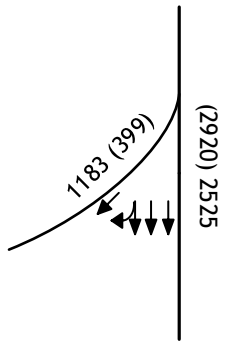
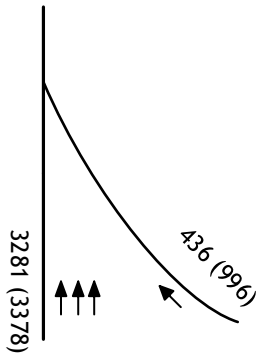
figure 11

210



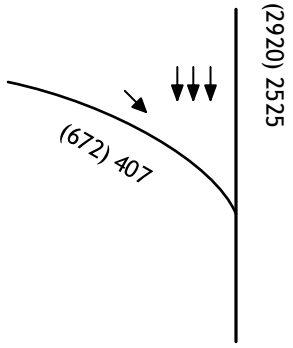
SR 99 at Arch-Airport Rd
Southbound Off-Ramp Diverge

211



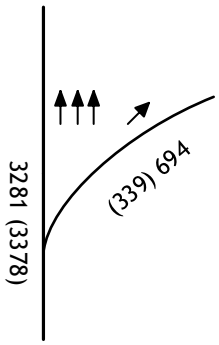
SR 99 at Arch-Airport Rd
Northbound On-Ramp Merge

212



SR 99 Northbound
At Crosstown Freeway Off-Ramp Diverge

213



SR 99 at Arch-Airport Rd
Northbound Off-Ramp Diverge

Legend

XX AM Peak Hour Volume
(XX) PM Peak Hour Volume
Weave Area Auxillary Lane
Number of Arrows Indicate Number of Lanes

NORTH
N.T.S.

EXISTING FREEWAY RAMP MERGE, DIVERGE, AND WEAVE AREA TRAFFIC VOLUMES AND LANE CONFIGURATIONS

Table 8. State Route 99 Ramp Merge, Diverge, and Weave Level of Service - Existing Conditions

	Ramp Junction	AM Peak Hour Freeway Volume	AM Peak Hour Ramp Volume	AM Peak Hour Density	AM Peak Hour LOS	PM Peak Hour Freeway Volume	PM Peak Hour Ramp Volume	PM Peak Hour Density	PM Peak Hour LOS
201	SB Weave Between	5,688	492	> Capacity	F	4,181	334	21.4	C
	Fremont St & Crosstown Fwy	3,466	2,709			2,981	1,534		
202	NB Weave Between	3,598	275	18.1	B	5,105	352	26.3	C
	Crosstown Fwy & Fremont St	2,349	1,524			3,594	1,863		
203	NB at Crosstown Fwy Off-Ramp	2,289	2,126	< 10	A	3,488	1,624	< 10	A
204	Golden Gate Ave SB Off-Ramp	3,613	529	< 10	A	3,302	589	< 10	A
205	Golden Gate Ave NB On-Ramp	3,584	491	19.3	B	3,976	672	22.9	C
206	SB Weave Between	3,604	158	17.5	B	3,337	191	16.4	B
	Golden Gate Ave & Mariposa Rd	3,216	546			3,113	415		
207	NB Weave Between	3,556	172	17.3	B	3,944	246	19.7	B
	Mariposa Rd & Golden Gate Ave	3,466	262			3,871	319		
208	Mariposa Rd SB On-Ramp (Slip)	3,590	118	16.9	B	3,158	161	14.9	B
209	Mariposa Rd NB Off-Ramp	3,472	245	22.2	C	4,203	171	25.8	C
210	Arch-Airport Rd SB Off-Ramp	2,525	1,183	< 10	A	2,920	399	< 10	A
211	Arch-Airport Rd NB On-Ramp	3,281	436	17.3	B	3,378	996	22.3	C
212	Arch-Airport Rd SB On-Ramp	2,525	407	14.0	B	2,920	672	18.3	B
213	Arch-Airport Rd NB Off-Ramp	3,281	694	22.1	C	3,378	339	21.8	C

Notes: "LOS" = Level of Service. "NB" = Northbound. "SB" = Southbound.
Density is expressed in passenger cars per mile per lane. "> Capacity" = volume-to-capacity ratio greater than 1.0.
For weave areas, north freeway and ramp volumes are listed first and south volumes are listed second.

EXISTING PLUS APPROVED PROJECTS
NO MARIPOSA INDUSTRIAL PARK PROJECT CONDITIONS

The EPAP No Mariposa Industrial Park Project condition is a near-term future background condition. This condition is also referred to in this traffic impact study as EPAP No Project conditions. Development of land uses and roadway improvements associated with previously-approved but as yet unconstructed projects are assumed in this condition. This scenario does not include development of the proposed Mariposa Industrial Park project. The EPAP No Project condition, therefore, serves as the baseline condition used to assess the significance of near-term project-related traffic effects.

TRAFFIC VOLUME FORECASTS

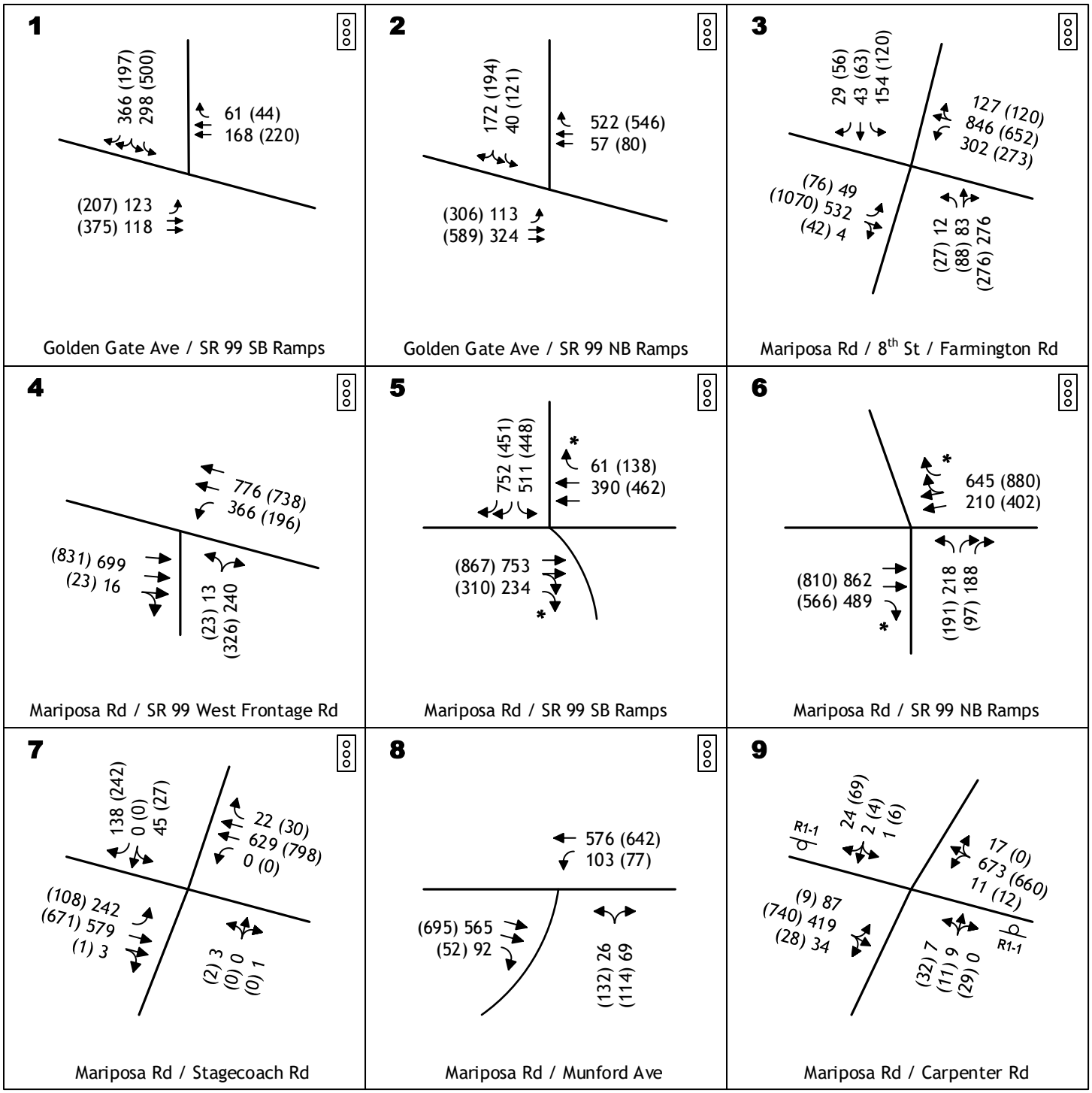
In consultation with City of Stockton staff (Moore pers. comm.), the City of Stockton Travel Demand Model (City of Stockton 2004) was used to develop forecasts of background increases in traffic volumes under near-term EPAP conditions. The increases in traffic volumes reflect development of near-term previously-approved projects in Stockton. The model was modified in the vicinity of the project site to add detail to the model and more accurately represent how land uses are provided access to the roadway network. Minor changes were also made to land uses in the model to accurately represent land uses.

Application of these methods results in the a.m. peak hour and p.m. peak hour intersection traffic volumes presented in **Figure 13** and **Figure 14,** the daily traffic volumes presented in **Table 9,** and the a.m. peak hour and p.m. peak hour ramp junction traffic volumes presented in **Figure 15** and **Figure 16**.

ROADWAY IMPROVEMENTS

The EPAP No Project condition assumes roadway improvements associated with previously-approved land use development projects, and approved roadway improvement projects. These near-term roadway improvements were identified in the *NorCal Logistics Center – Draft Environmental Impact Report (Project File No. P12-110)* (City of Stockton 2014), and the *Draft Environmental Impact Report - Mariposa Lakes Specific Plan - State Clearinghouse #2006022035* (City of Stockton 2007) and the *Public Review Draft Environmental Impact Report for the Sanchez-Hoggan Annexation* (City of Stockton 2020). The improvements include, for example, construction of a fourth leg at the intersection of Mariposa Road & Austin Road, which is associated with the Sanchez-Hoggan development project.

The resulting lane geometrics assumed for EPAP No Project conditions are shown in **Figure 13** and **Figure 14** and in **Table 9**.



Legend

XX	AM Peak Hour Volume
(XX)	PM Peak Hour Volume
R1-1	Stop Sign
	Signalized Intersection
*	"Free" Right Turn
– – – –	Future Roadway

NORTH

N.T.S.

EPAP NO PROJECT
INTERSECTION TRAFFIC VOLUMES
AND LANE CONFIGURATIONS

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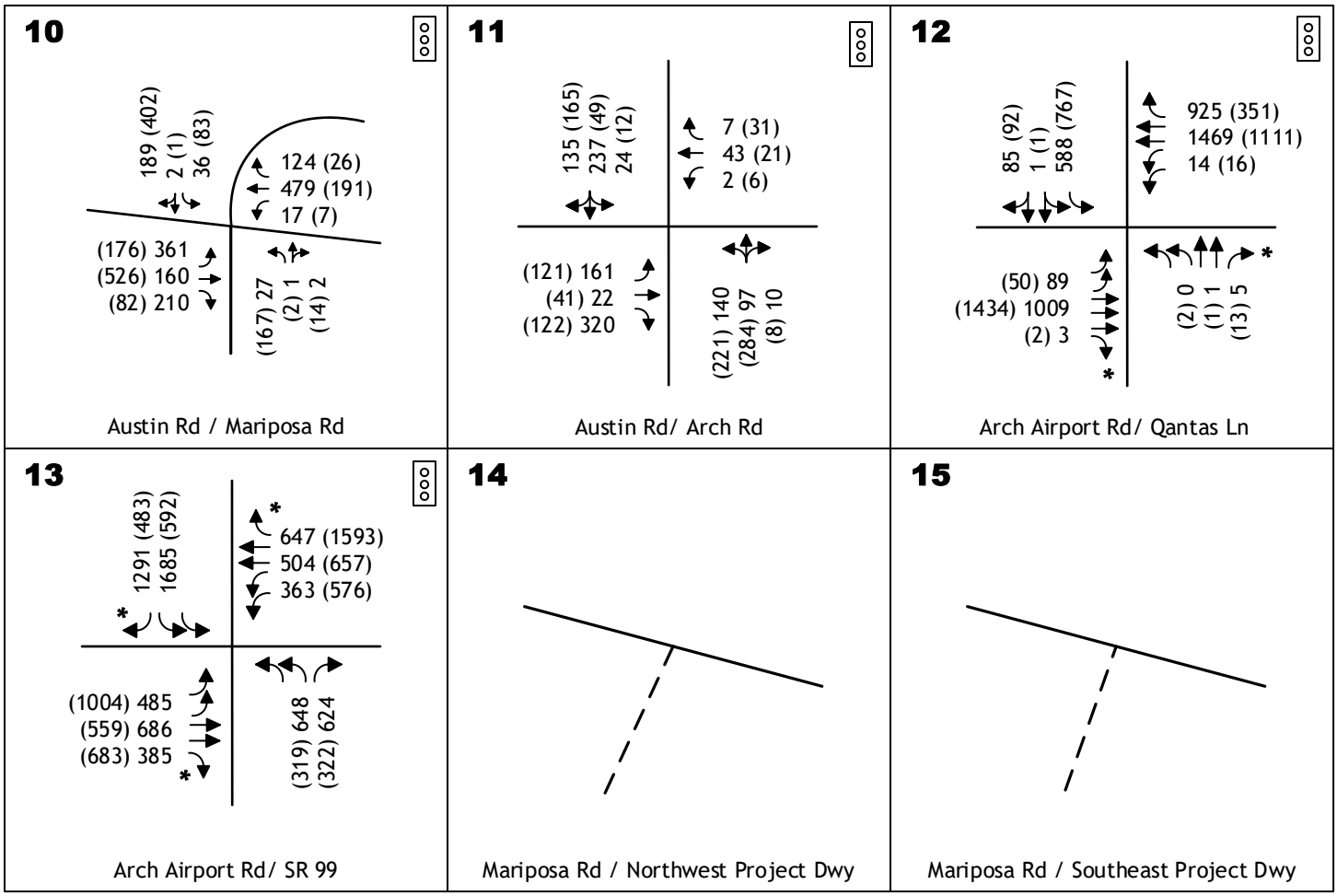
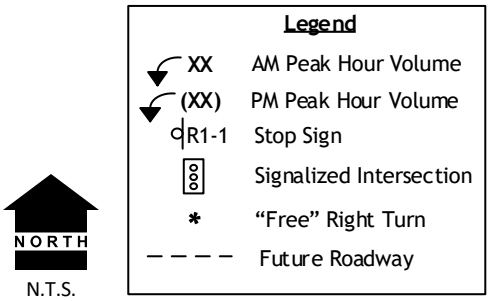
figure 13





EPAP NO PROJECT
INTERSECTION TRAFFIC VOLUMES
AND LANE CONFIGURATIONS

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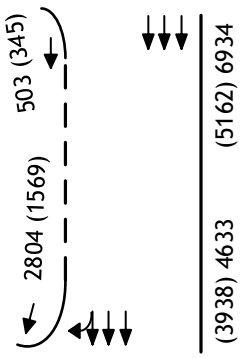
figure 14

Table 9. Roadway Segment Level of Service -
Existing Plus Approved Projects (EPAP) No Project Conditions

Roadway Segment	Number of Lanes	Daily Capacity	Daily Volume	V/C Ratio	Level of Service
101. SR 99 - North of Crosstown Freeway (SR 4)	8	172,800	110,947	0.64	C
102. Crosstown Freeway - West of SR 99	8	172,800	117,127	0.68	C
103. SR 99 - Between Crosstown Fwy and Golden Gate Avenue	8	172,800	120,768	0.70	C
104. SR 99 - Between Golden Gate Ave and Mariposa Rd	8	172,800	119,541	0.69	C
105. Mariposa Road - Between SR 99 and 8th St./Farmington Rd	2	17,300	25,552	1.48	F
106. Mariposa Road - Between Carpenter Road and SR 99	4	38,200	16,570	0.43	A
107. Mariposa Road - Between the Project Site and Carpenter Road	4	38,200	15,285	0.40	A
108. Mariposa Road - Southeast of the Project Site	4	38,200	15,285	0.40	A
109. Mariposa Road - East of Austin Road	4	38,200	11,039	0.29	A
110. SR 99 - Between Mariposa Road and Arch-Airport Road	6	129,600	95,887	0.74	D
111. Arch-Airport Road - Between Qantas Lane and SR 99	6	59,300	50,887	0.86	E
112. SR 99 - South of Arch-Airport Road	6	129,600	85,077	0.66	C

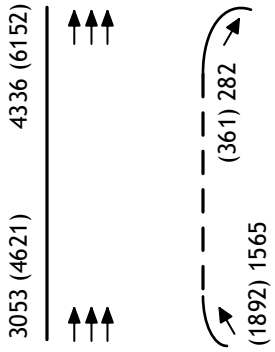
Notes: "SR" = State Route. "V/C Ratio" = volume-to-capacity ratio.

201



SR 99 Southbound Weave Area
Between Crosstown Freeway And Fremont St

202



SR 99 Northbound Weave Area
Between Crosstown Freeway And Fremont St

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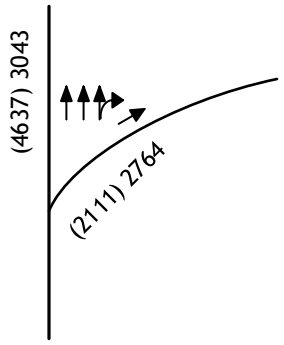
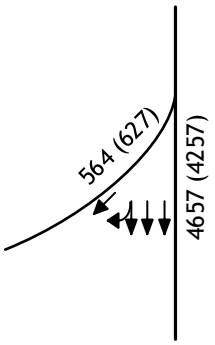


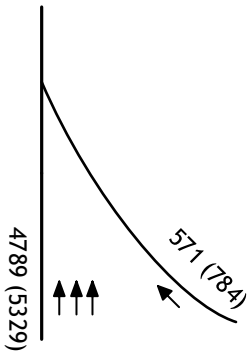
SR 99 Northbound
At Crosstown Freeway Off-Ramp Diverge

204



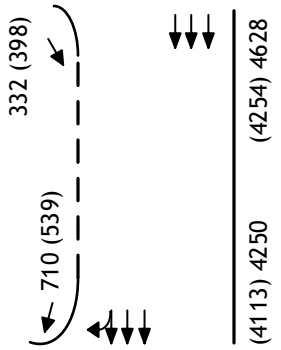
SR 99 at Golden Gate Avenue
Southbound Off-Ramp Diverge

205



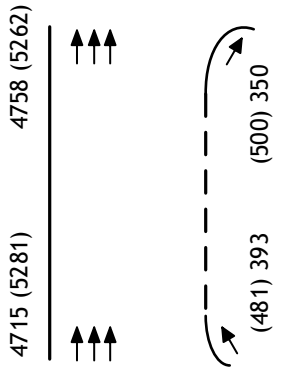
SR 99 at Golden Gate Avenue
Northbound On-Ramp Merge

206



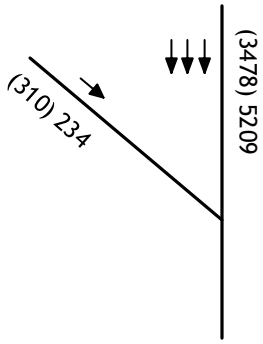
SR 99 Southbound Weave Area
Between Mariposa Rd and Golden Gate Ave

207



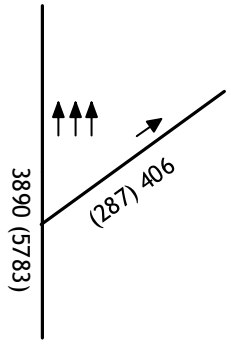
SR 99 Northbound Weave Area
Between Mariposa Rd and Golden Gate Ave

208



SR 99 at Mariposa Rd
Southbound On-Ramp (Slip) Merge

209



SR 99 at Mariposa Rd
Northbound Off-Ramp Diverge

Legend

XX AM Peak Hour Volume
(XX) PM Peak Hour Volume
Weave Area Auxillary Lane
Number of Arrows Indicate Number of Lanes

NORTH
N.T.S.

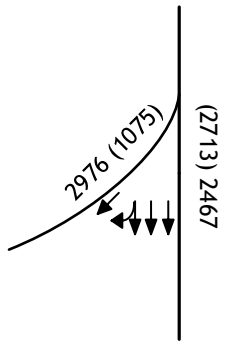
EPAP NO PROJECT FREEWAY RAMP MERGE, DIVERGE, AND WEAVE AREA TRAFFIC VOLUMES AND LANE CONFIGURATIONS

KD Anderson & Associates, Inc.
Transportation Engineers

0780-18 RA 7/9/2021

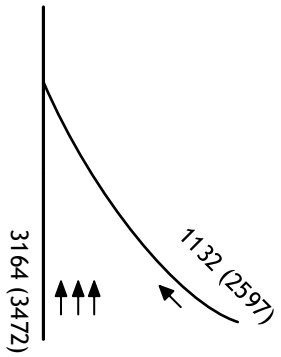
figure 15

210



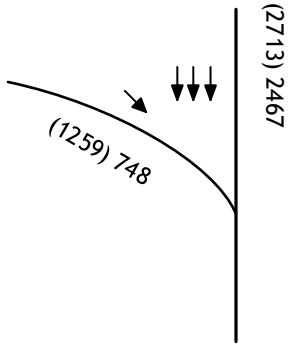
SR 99 at Arch-Airport Rd
Southbound Off-Ramp Diverge

211



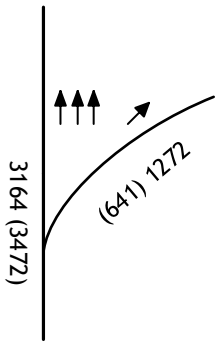
SR 99 at Arch-Airport Rd
Northbound On-Ramp Merge

212



SR 99 Northbound
At Crosstown Freeway Off-Ramp Diverge

213



SR 99 at Arch-Airport Rd
Northbound Off-Ramp Diverge

Legend

XX AM Peak Hour Volume
(XX) PM Peak Hour Volume
Weave Area Auxillary Lane
Number of Arrows Indicate Number of Lanes

NORTH

N.T.S.

EPAP NO PROJECT FREEWAY RAMP MERGE, DIVERGE, AND WEAVE AREA TRAFFIC VOLUMES AND LANE CONFIGURATIONS

KD Anderson & Associates, Inc.
Transportation Engineers

0780-18 RA 7/9/2021

figure 16

INTERSECTION LEVELS OF SERVICE

Table 10 presents the a.m. peak hour and p.m. peak hour LOS at each study intersection under EPAP No Project conditions. The worksheets presenting the calculation of LOS are included in the technical appendix.

Traffic volumes under EPAP No Project conditions would be generally higher than under Existing Conditions and, as a result, vehicle delay at study intersections under EPAP No Project conditions would be higher than under Existing Conditions.

Under EPAP No Project conditions, LOS at 10 of the 13 study intersections would be at acceptable LOS D or better during both the a.m. peak hour and the p.m. peak hour. No improvements are needed at these 10 intersections to achieve acceptable LOS. The following describes the three study intersections that would operate at unacceptable LOS under EPAP No Project conditions.

3. Mariposa Road & 8th Street/Farmington Road

Under EPAP No Project conditions, the intersection of Mariposa Road & 8th Street/Farmington Road would operate at LOS F with 94.9 seconds of delay during the a.m. peak hour, and LOS F with 130.0 seconds of delay during the p.m. peak hour. LOS F is considered unacceptable. The following improvement is recommended:

- Split the northeastbound combined through/right-turn lane into an exclusive northeastbound through lane and a "free" northeastbound-to-southeastbound right-turn lane.

The above improvement would be consistent with the recommended improvement (described below) for Roadway Segment 105, Mariposa Road Between SR 99 and 8th Street/Farmington Road, to widen the portions of this roadway segment which are one lane in each direction to two lanes in each direction. The added southeastbound departure lane on Mariposa Road would serve vehicles departing the "free" northeastbound-to-southeastbound right-turn lane at this intersection.

The existing northeastbound combined through/right-turn lane is approximately 23 to 24 feet wide and the single southwestbound departure lane is approximately 21 to 22 feet wide. As a result, the existing pavement width on the southwest leg of this intersection is considered wide enough to accommodate the above improvement.

As shown in **Table 11**, implementation of the above recommended improvement would improve traffic operations to LOS D with 38.2 seconds of delay in the a.m. peak hour and LOS E with 64.3 seconds of delay in the p.m. peak hour. As described in the *General Plan Policy Consistency Criteria* section of this traffic impact study, LOS D and E at this intersection are considered acceptable.

Table 10. Intersection Level of Service -
Existing Plus Approved Projects (EPAP) No Project Conditions

	Study Intersections	Inters. Control	Signal Warrant Met?	AM Peak LOS	AM Peak Delay	PM Peak LOS	PM Peak Delay
1	Golden Gate Avenue & SR 99 Southbound Ramps	Signal		B	14.1	B	15.9
2	Golden Gate Avenue & SR 99 Northbound Ramps	Signal		B	15.6	C	23.2
3	Mariposa Road & 8th Street/Farmington Road	Signal		F	94.9	F	130.0
4	Mariposa Road & SR 99 West Frontage Road	Signal		B	13.7	B	14.2
5	Mariposa Road & SR 99 Southbound Ramps	Signal		B	12.7	B	12.1
6	Mariposa Road & SR 99 Northbound Ramps	Signal		B	10.1	A	9.9
7	Mariposa Road & Stagecoach Road	Signal		B	19.8	B	19.3
8	Mariposa Road & Munford Avenue	Signal		B	12.7	B	17.8
9	Mariposa Road & Carpenter Road	Unsig	Yes	A	1.8	A	6.3
10	Mariposa Road & Austin Road	Signal		C	32.7	D	38.7
11	Arch Road & Austin Road	Signal		D	43.1	D	38.4
12	Arch-Airport Road & Qantas Lane	Signal		E	60.0	C	27.8
13	Arch Road & SR 99	Signal		F	195.4	E	69.5
14	Mariposa Road & Northwest Project Driveway	- -		- -	- -	- -	- -
15	Mariposa Road & Southeast Project Driveway	- -		- -	- -	- -	- -

Notes: LOS = Level of Service. "Inters. Control" = Type of intersection control.
"Signal" = Signalized light control. "Unsig" = Unsignalized stop-sign control.
Delay is measured in seconds per vehicle.
Per City of Stockton guidelines, intersection average delay is reported for all intersections, including unsignalized intersections.
Dashes ("- -") indicate intersection not present under this scenario.

Table 11. Intersection Level of Service -
Existing Plus Approved Projects (EPAP) No Project Conditions
With Recommended Improvements

	Study Intersections	Inters. Control	AM Peak LOS	AM Peak Delay	PM Peak LOS	PM Peak Delay
3	Mariposa Road & 8th Street/Farmington Road	Signal	D	38.2	E	64.3
12	Arch-Airport Road & Qantas Lane	Signal	C	31.6	C	26.8

Notes: LOS = Level of Service. "Inters. Control" = Type of intersection control.
"Signal" = Signalized light control.
Delay is measured in seconds per vehicle.
Per City of Stockton guidelines, intersection average delay is reported for all intersections.

12. Arch-Airport Road & Qantas Lane

Under EPAP No Project conditions, the intersection of Arch-Airport Road & Qantas Lane would operate at LOS E with 60.0 seconds of delay during the a.m. peak hour, and LOS C with 27.8 seconds of delay during the p.m. peak hour. LOS E is considered unacceptable. The following improvement is recommended:

- Change the signal timing to include overlap phasing on the northwestbound-to-northeastbound right-turn movement.

As shown in **Table 11**, implementation of the above recommended improvement would improve traffic operations to LOS C with 31.6 seconds of delay in the a.m. peak hour and LOS C with 26.8 seconds of delay in the p.m. peak hour. LOS C is considered acceptable.

13. Arch Road & SR 99

Under EPAP No Project conditions, the intersection of Arch Road & SR 99 would operate at LOS F with 195.4 seconds of delay during the a.m. peak hour, and LOS E with 69.5 seconds of delay during the p.m. peak hour. LOS E and F are considered unacceptable.

The unacceptable LOS at this intersection under EPAP No Project conditions would be due to increases in traffic volume along Arch Road, and on the SR 99 interchange ramps. Improvement of LOS at this intersection to acceptable LOS would require re-structuring of the interchange facility.

Reconstruction of the Arch–Airport Road interchange on SR 99, including additional eastbound and westbound through lanes would be required to achieve acceptable LOS. The EPAP No Project scenario is considered a near-term condition, and reconstruction of the interchange in the near-term future is not considered feasible. Therefore, improvements at this intersection are not recommended.

ROADWAY SEGMENT LEVELS OF SERVICE

Table 9 presents a summary of LOS on the 12 study roadway segments under EPAP No Project conditions. 10 of the 12 roadway segments would operate at acceptable LOS D or better. No improvements are needed on these 10 roadway segments to achieve acceptable LOS. The following describes the two study roadway segments that would operate at unacceptable LOS under EPAP No Project conditions.

105. Mariposa Road Between SR 99 and 8th Street/Farmington Road

Under EPAP No Project conditions, this roadway segment would operate at LOS F. This LOS is considered unacceptable. The following improvement is recommended:

- Widen the portions of this roadway segment which are one lane in each direction to two lanes in each direction.

A summary of LOS with recommended improvements is presented in **Table 12**. With this recommended improvement, this roadway segment would operate at LOS C. This LOS is considered acceptable.

This improvement is also recommended under Existing Conditions.

111. Arch-Airport Road Between Qantas Lane and SR 99

Under EPAP No Project conditions, this roadway segment would operate at LOS E. This LOS is considered unacceptable. Widening of this roadway segment to add through lanes to improve LOS would require reconstruction of the Arch-Airport Road interchange on SR 99. The EPAP No Project scenario is considered a near-term condition, and reconstruction of the interchange in the near-term future is not considered feasible. Therefore, improvement to this roadway segment is not recommended.

Table 12. Roadway Segment Level of Service -
Existing Plus Approved Projects (EPAP) No Project Conditions
With Recommended Improvements

Roadway Segment	Number of Lanes	Daily Capacity	Daily Volume	V/C Ratio	Level of Service
105. Mariposa Road - Between SR 99 and 8th St./Farmington Rd	4	38,200	25,552	0.67	C

Notes: "SR" = State Route. "V/C Ratio" = volume-to-capacity ratio.

RAMP JUNCTION LEVELS OF SERVICE

Figure 15 and **Figure 16** presents a.m. peak hour and p.m. peak hour traffic volumes at the study ramp junctions under EPAP No Project conditions. **Table 13** presents the a.m. peak hour and p.m. peak hour LOS at each study ramp junction under EPAP No Project conditions. The worksheets presenting the calculation of LOS are included in the technical appendix.

Traffic volumes under EPAP No Project conditions would be generally higher than under Existing Conditions and, as a result, vehicle density at study ramp junctions under EPAP No Project conditions would be higher than under Existing Conditions.

Under EPAP No Project conditions, LOS at 10 of the 13 study ramp junctions would be at acceptable LOS D or better during both the a.m. peak hour and the p.m. peak hour. No improvements are needed at these 10 ramp junctions to achieve acceptable LOS.

The following three ramp junction areas would operate at unacceptable LOS under EPAP No Project conditions:

- 201. SR 99 Southbound Weave Area Between Fremont Street and Crosstown Freeway would operate at LOS F during the a.m. peak hour,
- 205. SR 99 at Golden Gate Avenue Northbound On-Ramp Merge would operate at LOS F during the p.m. peak hour, and
- 211. SR 99 at Arch-Airport Road Northbound On-Ramp Merge would operate at LOS E in the p.m. peak hour.

Table 13. State Route 99 Ramp Merge, Diverge, and Weave Level of Service - Existing Plus Approved Projects (EPAP) No Project Conditions

Ramp Junction	AM Peak Hour				PM Peak Hour			
	Freeway Volume	Ramp Volume	Density	LOS	Freeway Volume	Ramp Volume	Density	LOS
201 SB Weave Between	6,934	503	> Capacity	F	5,162	345	26.6	C
Fremont St & Crosstown Fwy	4,633	2,804			3,938	1,569		
202 NB Weave Between	4,336	282	21.9	C	6,152	361	32.1	D
Crosstown Fwy & Fremont St	3,053	1,565			4,621	1,892		
203 NB at Crosstown Fwy Off-Ramp	3,043	2,764	< 10	A	4,637	2,111	< 10	A
204 Golden Gate Ave SB Off-Ramp	4,657	564	< 10	A	4,257	627	< 10	A
205 Golden Gate Ave NB On-Ramp	4,789	571	26.5	C	5,329	784	31.6	F
206 SB Weave Between	4,628	332	23.7	C	4,254	398	22.1	C
Golden Gate Ave & Mariposa Rd	4,250	710			4,113	539		
207 NB Weave Between	4,758	350	24.5	C	5,262	500	28.0	D
Mariposa Rd & Golden Gate Ave	4,715	393			5,281	481		
208 Mariposa Rd SB On-Ramp (Slip)	5,209	234	26.5	C	3,478	310	17.8	B
209 Mariposa Rd NB Off-Ramp	3,890	406	24.7	C	5,783	287	33.2	D
210 Arch-Airport Rd SB Off-Ramp	2,467	2,976	< 10	A	2,713	1,075	< 10	A
211 Arch-Airport Rd NB On-Ramp	3,164	1,132	22.3	C	3,472	2,597	35.9	E
212 Arch-Airport Rd SB On-Ramp	2,467	748	16.5	B	2,713	1,259	22.0	C
213 Arch-Airport Rd NB Off-Ramp	3,164	1,272	22.9	C	3,472	641	23.0	C

Notes: "LOS" = Level of Service. "NB" = Northbound. "SB" = Southbound.
Density is expressed in passenger cars per mile per lane. "> Capacity" = volume-to-capacity ratio greater than 1.0.
For weave areas, north freeway and ramp volumes are listed first and south volumes are listed second.

201. SR 99 Southbound Weave Area Between Fremont Street and Crosstown Freeway

LOS F at the SR 99 Southbound Weave Area Between Fremont Street and Crosstown Freeway is considered unacceptable. Reconstruction of the Fremont Street and Crosstown Freeway interchanges on SR 99, including the addition of lanes on mainline SR 99, would be required to achieve acceptable LOS at this weave area. The EPAP No Project scenario is considered a near-term condition, and reconstruction of this weave area in the near-term future is not considered feasible. In addition, existing land use adjacent to SR 99 and the location of the two interchanges results in improvements to the weave area being considered not feasible. Therefore, improvements to this weave area are not recommended.

205. SR 99 at Golden Gate Avenue Northbound On-Ramp Merge

LOS F at the Golden Gate Avenue Northbound On-Ramp Merge is considered unacceptable. Reconstruction of the Golden Gate Avenue interchange on SR 99, including the addition of lanes on mainline SR 99, would be required to achieve acceptable LOS at this ramp junction. The EPAP No Project scenario is considered a near-term condition, and reconstruction of the interchange in the near-term future is not considered feasible. Therefore, improvements to this ramp junction area are not recommended.

211. SR 99 at Arch-Airport Road Northbound On-Ramp Merge

LOS E at the Arch-Airport Road Northbound On-Ramp Merge is considered unacceptable. Reconstruction of the Arch–Airport Road interchange on SR 99, including the addition of lanes on mainline SR 99, would be required to achieve acceptable LOS at this ramp junction. The EPAP No Project scenario is considered a near-term condition, and reconstruction of the interchange in the near-term future is not considered feasible. Therefore, improvements to this ramp junction area are not recommended.

EXISTING PLUS APPROVED PROJECTS
PLUS MARIPOSA INDUSTRIAL PARK PROJECT IMPACTS

The EPAP Plus Mariposa Industrial Park Project scenario is a near-term future condition with the proposed project. This condition is also referred to in this traffic impact study as EPAP Plus Project conditions.

The development of the Mariposa Industrial Park project would result in vehicle traffic to and from the project site. The amount of additional traffic on a particular section of the street network depends on three factors:

- Trip Generation, the number of new trips generated by the project,
- Trip Distribution, the direction of travel for the new traffic, and
- Trip Assignment, the specific routes used by the new traffic.

Each of these three factors is described below.

TRIP GENERATION

Development of the Mariposa Industrial Park project would generate new vehicle trips and potentially affect traffic operations on study facilities. The number of vehicle trips expected to be generated by the proposed project has been estimated using typical trip generation rates that have been developed based on the nature and size of project land uses. Trip generation rates developed for the City of Stockton (McDowell pers. comm.) were applied for this traffic impact study. These rates have been applied by the City for other projects in the southeast Stockton area (City of Stockton 2014, and Tellez pers. comm.) with land uses similar to the Mariposa Industrial Park project.

The trip generation rates used in this traffic impact study are presented in **Table 14**. The trip generation rates are applied to the amount of project-related land uses. The resulting trip generation estimates are presented in **Table 15**. As shown in **Table 15**, the Mariposa Industrial Park project would generate an estimated 12,370 vehicle trips per day, with 651 trips during the a.m. peak hour and 796 trips during the p.m. peak hour.

TRIP DISTRIBUTION

Project-related trips were geographically distributed over the study area roadway network. The geographical distribution of trips is based on the relative attractiveness or utility of possible destinations. Trip distribution percentages applied in this traffic impact study are presented in **Table 16**. The data presented in **Table 16** are graphically shown in **Figure 17** and **Figure 18**.

Table 14. Trip Generation Rates

Land Use	Units	Trips per Unit						
		Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Light Industrial	Thousand Square Feet	3.42	0.11	0.07	0.18	0.08	0.14	0.22

Source: McDowell pers. comm. and City of Stockton 2014.

Table 15. Trip Generation Estimate

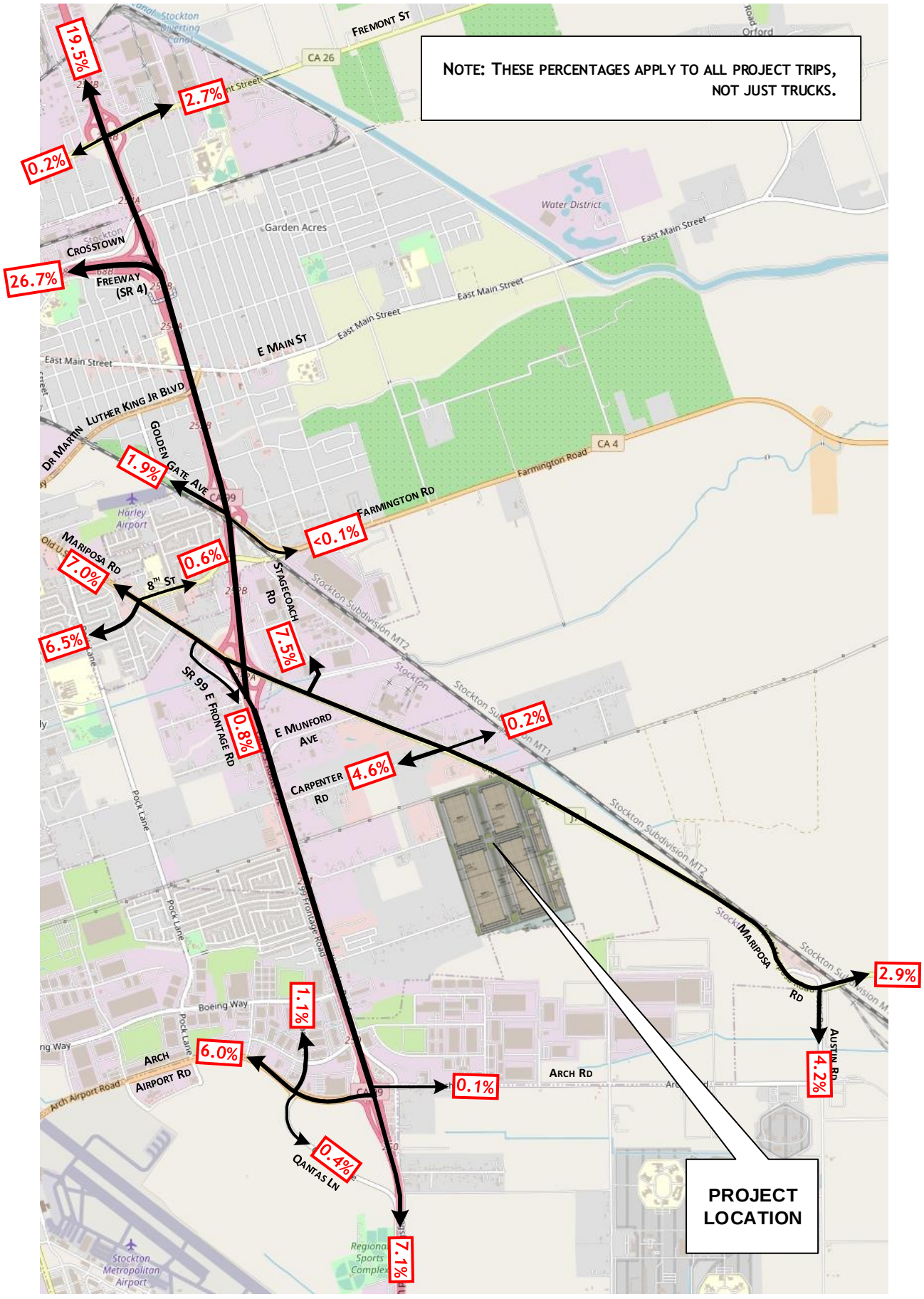
Land Use	Quantity	Trips Generated						
		Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Light Industrial	3,616.87 Thousand Square Feet	12,370	398	253	651	289	506	796

Source: McDowell pers. comm. and City of Stockton 2014.
Total may not equal the sum of components due to rounding.

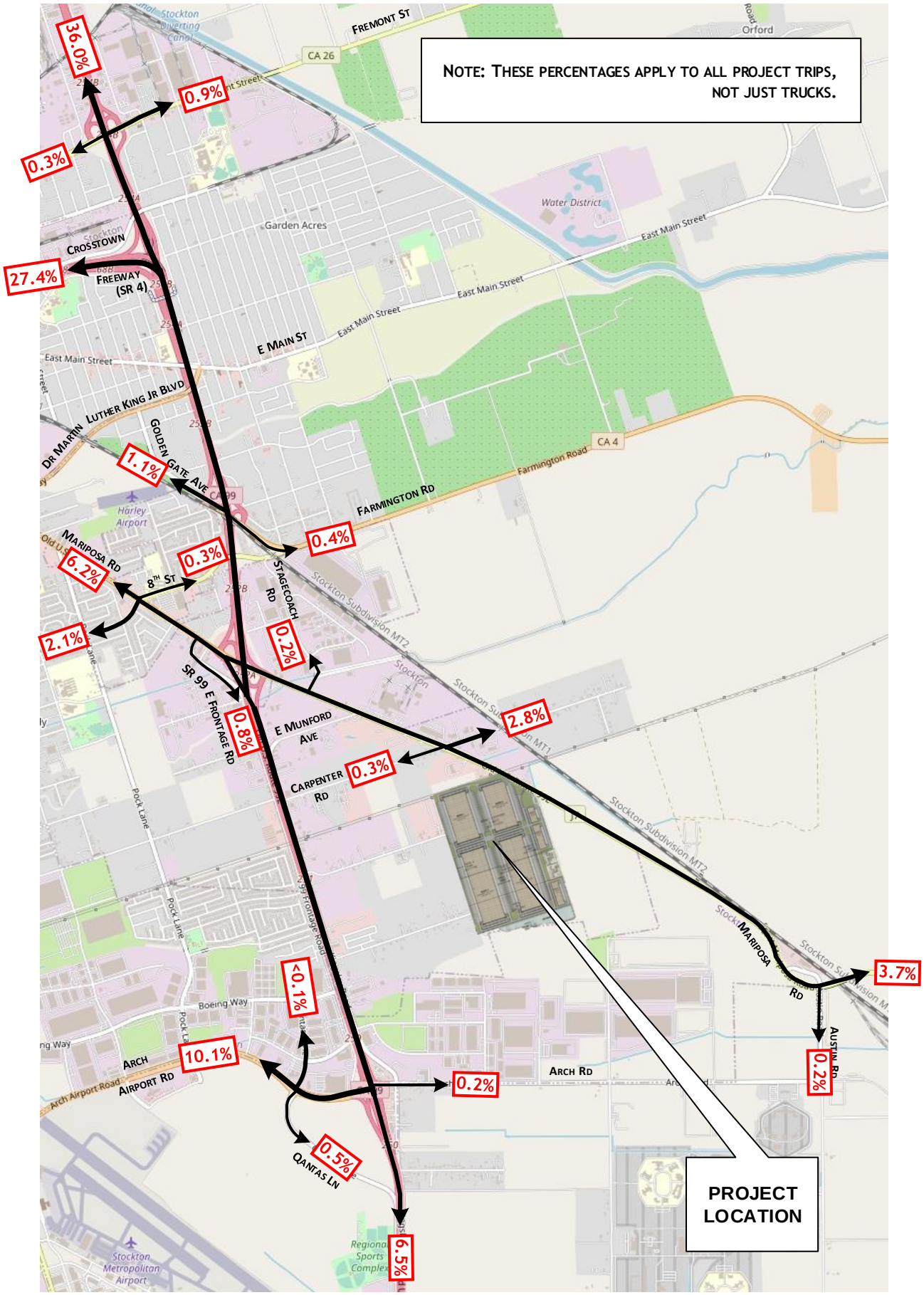
Table 16. Mariposa Industrial Park Project Trip Distribution Percentages

Direction of Travel	Existing Plus Approved Projects Background	Cumulative Background
SR 99 North of Fremont Street	19.5	36.0
Fremont Street West of SR 99	0.2	0.3
Fremont Street East of SR 99	2.7	0.9
Crosstown Freeway West of SR 99	26.7	27.4
Golden Gate Avenue West of SR 99	1.9	1.1
Golden Gate Avenue East of SR 99	- -	0.4
8th Street West of Mariposa Road	6.5	2.1
Mariposa Rd Northwest of 8th St/Farmington Rd	7.0	6.2
Farmington Road East of Mariposa Road	0.6	0.3
SR 99 West Frontage Road South of Mariposa Road	0.8	0.8
Stagecoach Road North of Mariposa Road	7.5	0.2
Carpenter Road West of Mariposa Road	4.6	0.3
Carpenter Road East of Mariposa Road	0.2	2.8
Mariposa Road Southeast of Austin Road	2.9	3.7
Austin Road South of Mariposa Road	4.2	0.2
Arch Road West of Qantas Lane	6.0	10.1
Qantas Lane North of Arch Road	1.1	- -
Qantas Lane South of Arch Road	0.4	0.5
Arch Road East of SR 99	0.1	0.2
SR 99 South of Arch Road	7.1	6.5
TOTAL	100.0	100.0

Source: City of Stockton General Plan Travel Demand Model Select Link Analysis.
Note: Dashes ("- -") indicate value is less than one-tenth percent.



EXISTING PLUS APPROVED PROJECTS
BACKGROUND TRIP DISTRIBUTION PERCENTAGES



CUMULATIVE BACKGROUND
TRIP DISTRIBUTION PERCENTAGES

The City of Stockton travel demand model (City of Stockton 2004 and City of Stockton 2018b) was used to estimate trip distribution percentages. The travel demand model is considered to be a valid source for the trip distribution percentages because it directly addresses:

- the location of destinations of project-related trips,
- the magnitude of land uses that would attract project-related trips, and
- the quality of access to the destinations via the roadway network.

This traffic impact study includes analysis of scenarios based on two different background development conditions:

- Existing Plus Approved Projects (EPAP), and
- 2040 Cumulative Conditions.

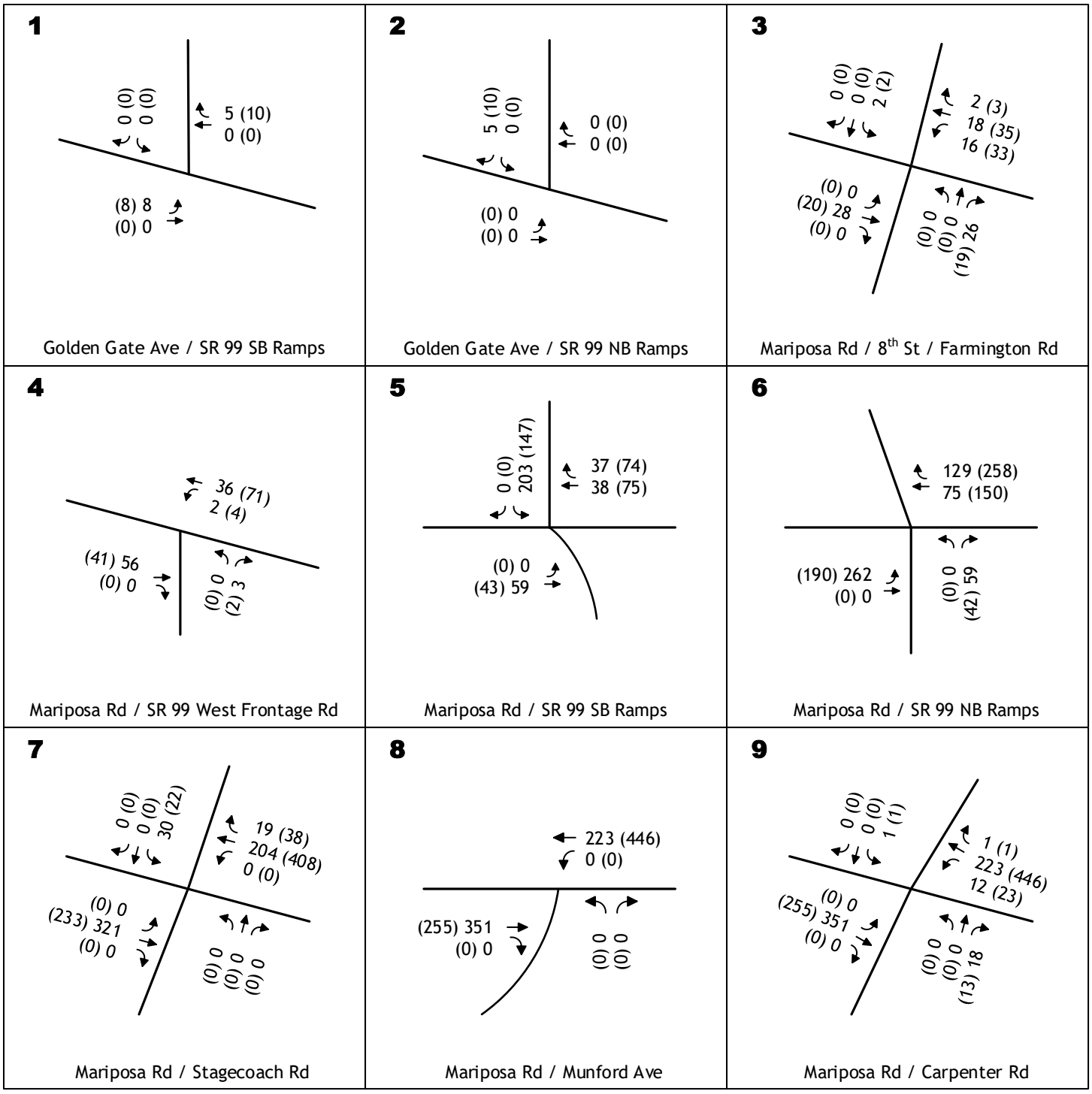
The travel demand model for each of these two scenarios was used to estimate trip distribution percentages. Background (non-project) land uses are different in each of the two travel demand models. The different land uses result in different geographic distributions of travel. As a result, the trip distribution percentages are different for each of the two background development conditions. **Table 16**, **Figure 17,** and **Figure 18** present the trip distribution percentages for each of the two background development scenarios.

A "select link" analysis was conducted using each of the two travel demand models to determine the geographic distribution of project-related travel. The select link analysis identifies vehicle trips associated with the proposed project site, and identifies the direction of travel to and from the project site.

Raw, pre-adjustment, traffic model results used in the development of trip distribution percentages are presented in the technical appendix.

TRIP ASSIGNMENT

Traffic that would be generated by the proposed project was geographically distributed over the study area roadway network using the trip distribution percentages shown in **Table 16**, **Figure 17,** and **Figure 18**. **Figure 19** and **Figure 20** display the project-related-only traffic volumes for each study intersection in the a.m. peak hour and p.m. peak hour. **Figure 21** and **Figure 22** display the resulting EPAP Plus Project traffic volumes anticipated for each study intersection in the peak hours. The a.m. peak hour and p.m. peak hour freeway ramp junction traffic volumes are presented in **Figure 23** and **Figure 24**.



PROJECTED-RELATED INTERSECTION TRAFFIC VOLUMES

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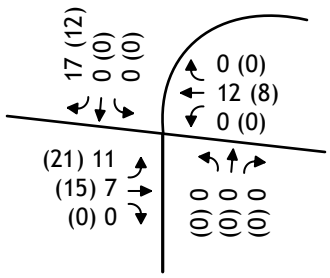
0780-18 RA 7/9/2021

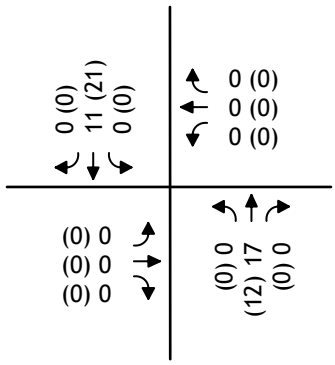
figure 19

10



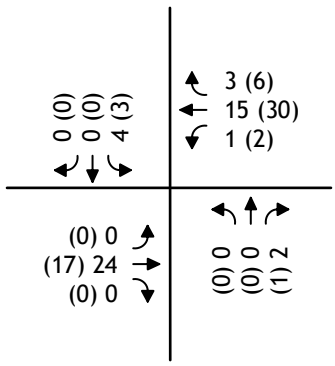
Austin Rd / Mariposa Rd

11



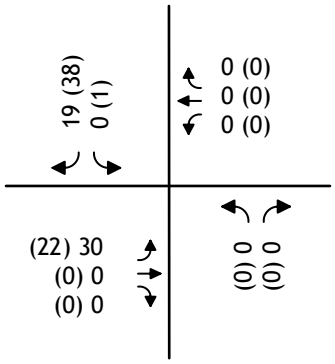
Austin Rd/ Arch Rd

12



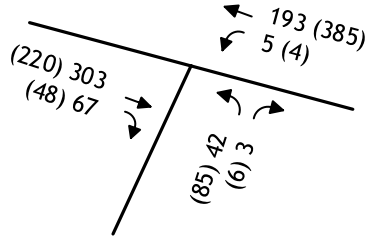
Arch Airport Rd/ Qantas Ln

13



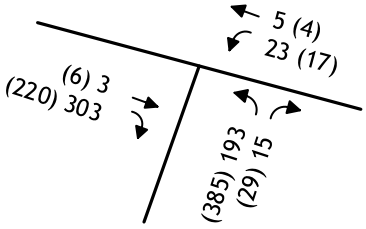
Arch Airport Rd/ SR 99

14



Mariposa Rd / Northwest Project Dwy

15



Mariposa Rd / Southeast Project Dwy

N.T.S.

Legend

XX AM Peak Hour Volume

(XX) PM Peak Hour Volume

PROJECTED-RELATED INTERSECTION TRAFFIC VOLUMES

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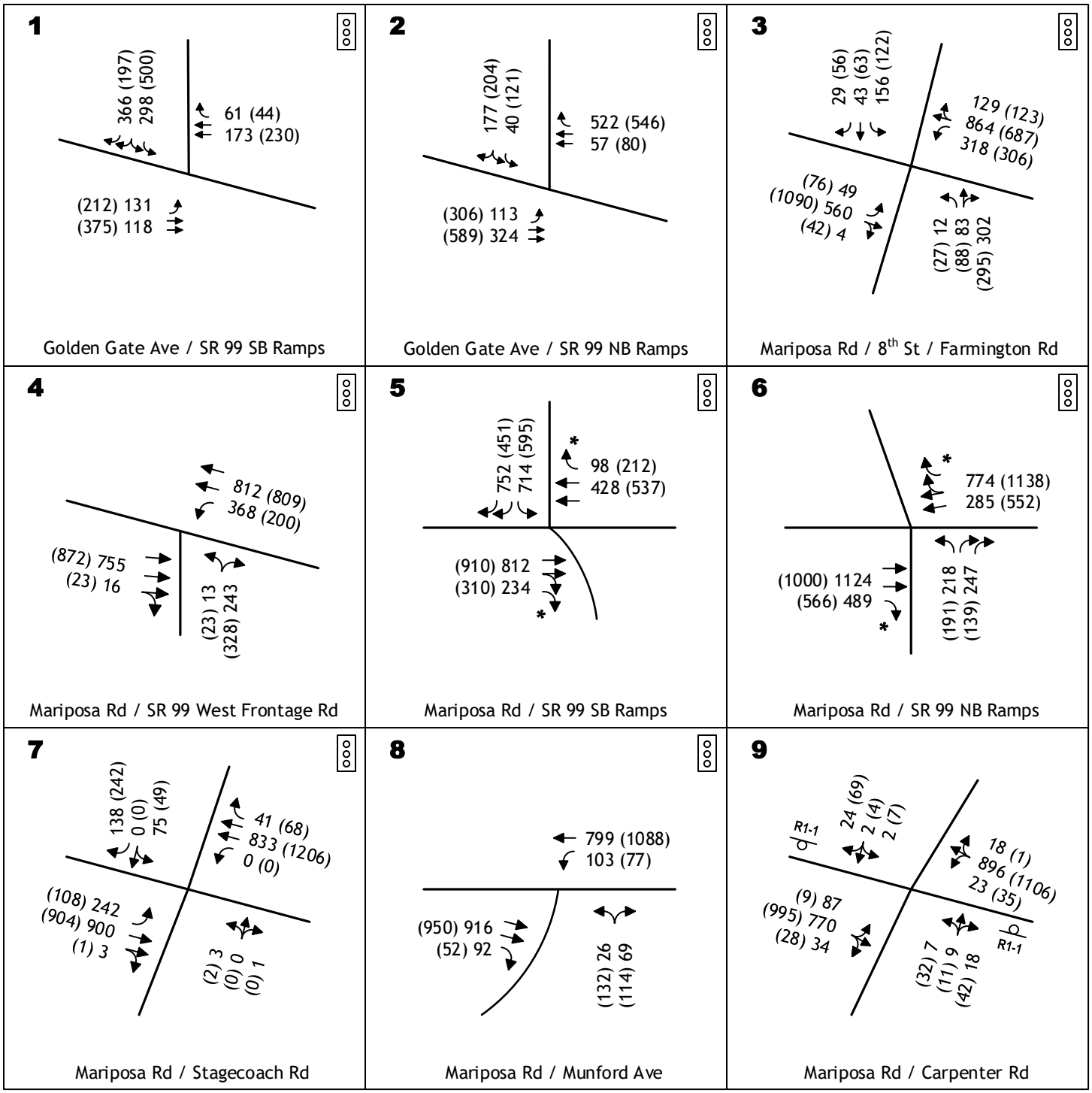
figure 20



Legend

XX	AM Peak Hour Volume
(XX)	PM Peak Hour Volume
R1-1	Stop Sign
	Signalized Intersection
CWLTL	Center Two-Way Left Turn Lane
*	"Free" Right Turn

NORTH

N.T.S.

EPAP PLUS PROJECT
INTERSECTION TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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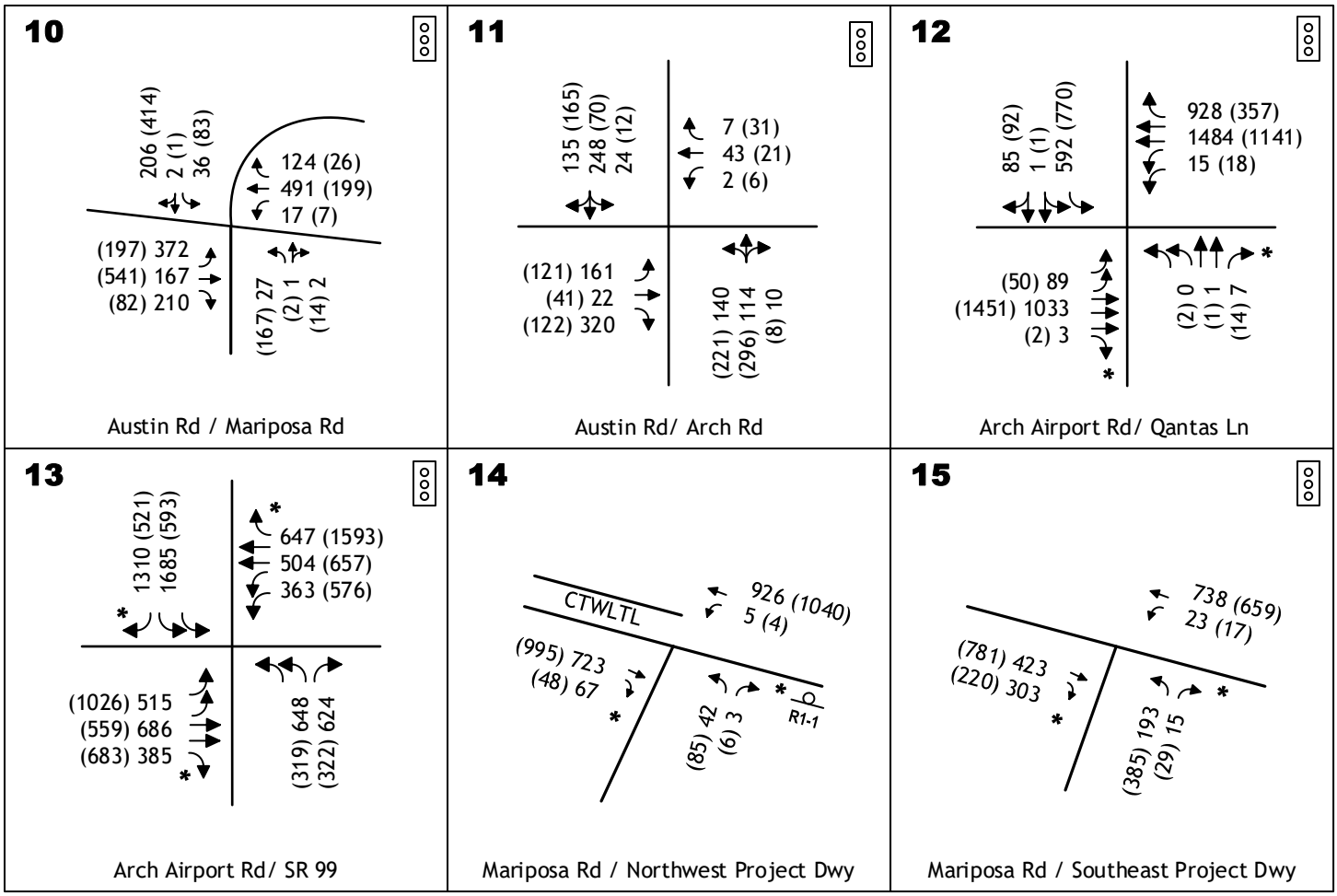
figure 21



Legend

XX	AM Peak Hour Volume
(XX)	PM Peak Hour Volume
R1-1	Stop Sign
	Signalized Intersection
CWLTL	Center Two-Way Left Turn Lane
*	"Free" Right Turn

NORTH

N.T.S.

EPAP PLUS PROJECT
INTERSECTION TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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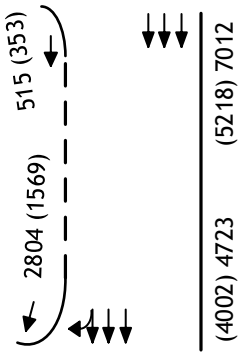
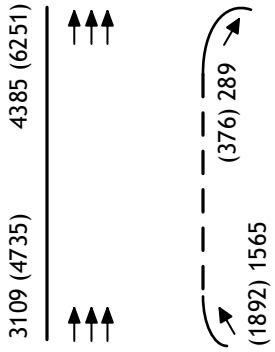
figure 22

201



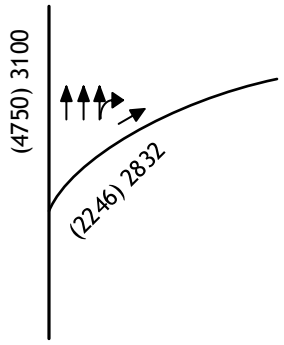
SR 99 Southbound Weave Area
Between Crosstown Freeway And Fremont St

202



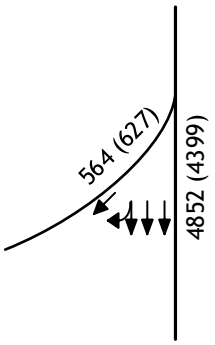
SR 99 Northbound Weave Area
Between Crosstown Freeway And Fremont St

203



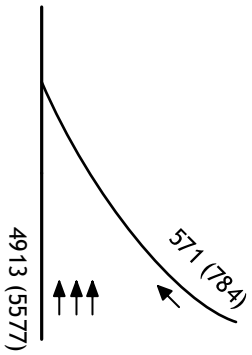
SR 99 Northbound
At Crosstown Freeway Off-Ramp Diverge

204



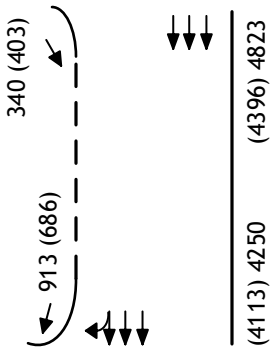
SR 99 at Golden Gate Avenue
Southbound Off-Ramp Diverge

205



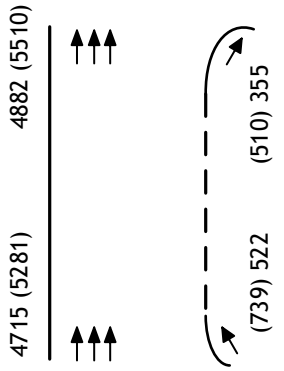
SR 99 at Golden Gate Avenue
Northbound On-Ramp Merge

206



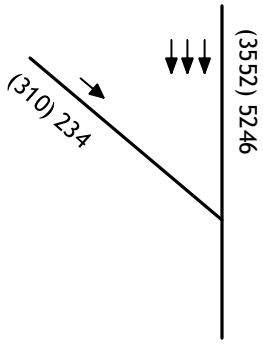
SR 99 Southbound Weave Area
Between Mariposa Rd and Golden Gate Ave

207



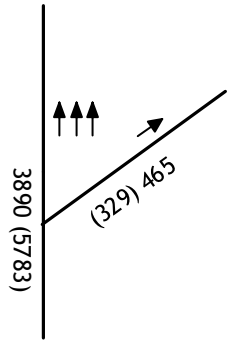
SR 99 Northbound Weave Area
Between Mariposa Rd and Golden Gate Ave

208



SR 99 at Mariposa Rd
Southbound On-Ramp (Slip) Merge

209



SR 99 at Mariposa Rd
Northbound Off-Ramp Diverge

Legend

XX AM Peak Hour Volume

(XX) PM Peak Hour Volume

Weave Area Auxillary Lane

Number of Arrows Indicate Number of Lanes

NORTH

N.T.S.

EPAP PLUS PROJECT FREEWAY RAMP MERGE, DIVERGE, AND WEAVE AREA TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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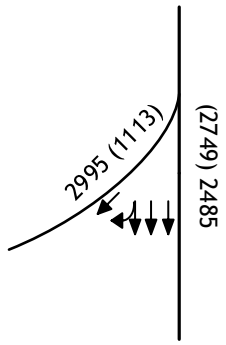
0780-18 RA 7/9/2021

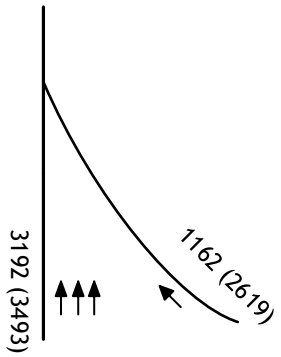
figure 23

210



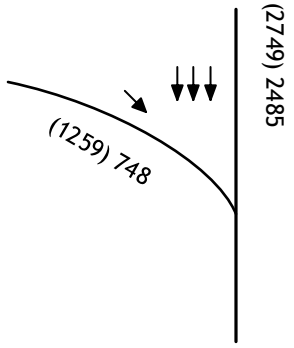
SR 99 at Arch-Airport Rd
Southbound Off-Ramp Diverge

211



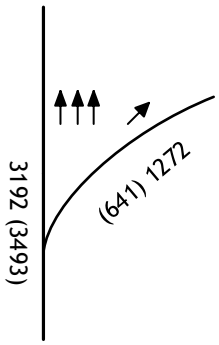
SR 99 at Arch-Airport Rd
Northbound On-Ramp Merge

212



SR 99 Northbound
At Crosstown Freeway Off-Ramp Diverge

213



SR 99 at Arch-Airport Rd
Northbound Off-Ramp Diverge

Legend

XX AM Peak Hour Volume
(XX) PM Peak Hour Volume
Weave Area Auxillary Lane
Number of Arrows Indicate Number of Lanes

NORTH
N.T.S.

EPAP PLUS PROJECT FREEWAY RAMP MERGE, DIVERGE, AND WEAVE AREA TRAFFIC VOLUMES AND LANE CONFIGURATIONS

KD Anderson & Associates, Inc.
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0780-18 RA 7/9/2021

figure 24

ROADWAY IMPROVEMENTS

Implementation of the Mariposa Industrial Park project would result in roadway improvements needed to provide access to the project site. Improvements to project site access points are shown in the proposed project site plan presented in **Figure 2** and project site frontage striping plan presented in **Figure 3**. These improvements have been previously described in more detail in the *Project Description* section of this traffic impact study.

Figure 21 and **Figure 22** display the resulting EPAP Plus Project intersection lane geometrics for each study intersection. The resulting number of travel lanes assumed for study roadway segments and daily traffic volumes are shown in **Table 17.**

INTERSECTION LEVELS OF SERVICE

Table 18 presents the a.m. peak hour and p.m. peak hour LOS at each study intersection under EPAP Plus Project conditions. The worksheets presenting the calculation of LOS are included in the technical appendix.

Under EPAP Plus Project conditions, LOS at 11 of the 15 study intersections would be at acceptable LOS D or better during both the a.m. peak hour and the p.m. peak hour. No improvements would be needed at these 11 intersections to achieve acceptable LOS. The following describes the four study intersections that would operate at unacceptable LOS under EPAP Plus Project conditions.

3. Mariposa Road & 8th Street/Farmington Road

Under EPAP Plus Project conditions, this intersection would operate at LOS F with 109.3 seconds of delay during the a.m. peak hour, and LOS F with 145.8 seconds of delay during the p.m. peak hour. LOS F is considered unacceptable. Compared to EPAP No Project Conditions, the project-related increase in delay would be greater than five seconds during either the a.m. peak hour or the p.m. peak hour. Therefore, based on criteria presented in the *General Plan Policy Consistency Criteria* section of this traffic impact study, the project-related inconsistency with General Plan policies is considered significant. The following improvement is recommended to improve operating conditions to acceptable LOS and reduce the project-related inconsistency with General Plan policies to a less than significant level:

- Split the northeastbound combined through/right-turn lane into an exclusive northeastbound through lane and a "free" northeastbound-to-southeastbound right-turn lane.

The above improvement would be consistent with the recommended improvement (described below) for Roadway Segment 105, Mariposa Road Between SR 99 and 8th Street/Farmington Road, to widen the portions of this roadway segment which are one lane in each direction to two lanes in each direction. The added southeastbound departure lane on Mariposa Road would serve vehicles departing the "free" northeastbound-to-southeastbound right-turn lane at this intersection.

The existing northeastbound combined through/right-turn lane is approximately 23 to 24 feet wide and the single southwestbound departure lane is approximately 21 to 22 feet wide. As a result, the existing pavement width on the southwest leg of this intersection is considered wide enough to accommodate the above improvement.

Table 17. Roadway Segment Level of Service - Existing Plus Approved Projects (EPAP) Plus Project Conditions

Roadway Segment	Number of Lanes	Daily Capacity	Daily Volume	V/C Ratio	Level of Service
101. SR 99 - North of Crosstown Freeway (SR 4)	8	172,800	113,717	0.66	C
102. Crosstown Freeway - West of SR 99	8	172,800	120,429	0.70	C
103. SR 99 - Between Crosstown Fwy and Golden Gate Avenue	8	172,800	126,842	0.73	C
104. SR 99 - Between Golden Gate Ave and Mariposa Rd	8	172,800	125,851	0.73	C
105. Mariposa Road - Between SR 99 and 8th St./Farmington Rd	2	17,300	27,296	1.58	F
106. Mariposa Road - Between Carpenter Road and SR 99	4	38,200	26,540	0.69	D
107. Mariposa Road - Between the Project Site and Carpenter Road	4	38,200	26,777	0.70	D
108. Mariposa Road - Southeast of the Project Site	4	38,200	16,163	0.42	A
109. Mariposa Road - East of Austin Road	4	38,200	11,397	0.30	A
110. SR 99 - Between Mariposa Road and Arch-Airport Road	6	129,600	97,705	0.75	D
111. Arch-Airport Road - Between Qantas Lane and SR 99	6	59,300	51,815	0.87	E
112. SR 99 - South of Arch-Airport Road	6	129,600	85,955	0.66	C

Notes: "SR" = State Route. "V/C Ratio" = volume-to-capacity ratio.

Table 18. Intersection Level of Service -
Existing Plus Approved Projects (EPAP) Plus Project Conditions

	Study Intersections	Inters. Control	Signal Warrant Met?	AM Peak LOS	AM Peak Delay	PM Peak LOS	PM Peak Delay
1	Golden Gate Avenue & SR 99 Southbound Ramps	Signal		B	14.2	B	16.0
2	Golden Gate Avenue & SR 99 Northbound Ramps	Signal		B	15.8	C	23.9
3	Mariposa Road & 8th Street/Farmington Road	Signal		F	109.3	F	145.8
4	Mariposa Road & SR 99 West Frontage Road	Signal		B	14.2	B	14.5
5	Mariposa Road & SR 99 Southbound Ramps	Signal		B	18.4	B	15.4
6	Mariposa Road & SR 99 Northbound Ramps	Signal		B	10.6	B	10.4
7	Mariposa Road & Stagecoach Road	Signal		B	18.5	B	18.2
8	Mariposa Road & Munford Avenue	Signal		B	11.5	C	23.9
9	Mariposa Road & Carpenter Road	Unsig	Yes	A	3.7	F	63.9
10	Mariposa Road & Austin Road	Signal		C	35.0	D	40.2
11	Arch Road & Austin Road	Signal		D	45.2	D	40.2
12	Arch-Airport Road & Qantas Lane	Signal		E	61.7	C	28.4
13	Arch Road & SR 99	Signal		F	194.4	E	73.6
14	Mariposa Road & Northwest Project Driveway	Unsig	No	A	0.5	A	1.2
15	Mariposa Road & Southeast Project Driveway	Signal		B	13.8	C	23.1

Notes: LOS = Level of Service. "Inters. Control" = Type of intersection control.
"Signal" = Signalized light control. "Unsig" = Unsignalized stop-sign control.
Delay is measured in seconds per vehicle.
Per City of Stockton guidelines, intersection average delay is reported for all intersections, including unsignalized intersections.

As shown in **Table 19**, implementation of the above recommended improvement would improve traffic operations to LOS D with 40.4 seconds of delay in the a.m. peak hour and LOS E with 73.2 seconds of delay in the p.m. peak hour. As described in the *General Plan Policy Consistency Criteria* section of this traffic impact study, LOS D and E at this intersection are considered acceptable.

This recommended improvement is the same as the improvement recommended at this intersection for EPAP No Project conditions.

9. Mariposa Road & Carpenter Road

Under EPAP Plus Project conditions, this intersection would operate at LOS A with 3.7 seconds of delay during the a.m. peak hour, and LOS F with 63.9 seconds of delay during the p.m. peak hour. LOS F is considered unacceptable. Compared to EPAP No Project Conditions, the project-related increase in delay would be greater than five seconds during either the a.m. peak hour or the p.m. peak hour. Therefore, based on criteria presented in the *General Plan Policy Consistency Criteria* section of this traffic impact study, the project-related inconsistency with General Plan policies is considered significant. The following improvement is recommended to improve operating conditions to acceptable LOS and reduce the project-related inconsistency with General Plan policies to a less than significant level:

- Widen the northeastbound Carpenter Road approach. The approach is currently a single-lane approach. The approach should be widened to include an exclusive northeastbound-to northwestbound left-turn lane, and a combined through/right-turn lane.

As shown in **Table 19**, implementation of the above recommended improvement would improve traffic operations to LOS A with 2.9 seconds of delay in the a.m. peak hour and LOS D with 32.7 seconds of delay in the p.m. peak hour. LOS A and D are considered acceptable.

12. Arch-Airport Road & Qantas Lane

Under EPAP Plus Project conditions, this intersection would operate at LOS E with 61.7 seconds of delay during the a.m. peak hour, and LOS C with 28.4 seconds of delay during the p.m. peak hour. LOS E is considered unacceptable. However, LOS would also be unacceptable under EPAP No Project conditions, and the project-related change in delay would not be greater than a five second increase. Therefore, based on criteria presented in the *General Plan Policy Consistency Criteria* section of this traffic impact study, the project-related inconsistency with General Plan policies is considered less than significant and no improvements are recommended.

Table 19. Intersection Level of Service -
Existing Plus Approved Projects (EPAP) Plus Project Conditions
With Recommended Improvements

Study Intersections	Inters. Control	Signal Warrant Met?	AM Peak LOS	AM Peak Delay	PM Peak LOS	PM Peak Delay
3 Mariposa Road & 8th Street/Farmington Road	Signal		D	40.4	E	73.2
9 Mariposa Road & Carpenter Road	Unsig	No	A	2.9	D	32.7

Notes: LOS = Level of Service. "Inters. Control" = Type of intersection control.
"Signal" = Signalized light control. "Unsig" = Unsignalized stop-sign control.
Delay is measured in seconds per vehicle.
Per City of Stockton guidelines, intersection average delay is reported for all intersections, including unsignalized intersections.

13. Arch Road & SR 99

Under EPAP Plus Project conditions, this intersection would operate at LOS F with 194.4 seconds of delay during the a.m. peak hour, and LOS E with 73.6 seconds of delay during the p.m. peak hour. LOS E and F are considered unacceptable. However, LOS would also be unacceptable under EPAP No Project conditions, and the project-related change in delay would not be greater than a five second increase. Therefore, based on criteria presented in the *General Plan Policy Consistency Criteria* section of this traffic impact study, the project-related inconsistency with General Plan policies is considered less than significant and no improvements are recommended.

ROADWAY SEGMENT LEVELS OF SERVICE

Table 17 presents a summary of LOS on the 12 study roadway segments under EPAP Plus Project conditions. 10 of the roadway segments would operate at acceptable LOS D or better. No improvements would be needed on these 10 roadway segments to achieve acceptable LOS. The following two roadway segments would operate at unacceptable LOS.

105. Mariposa Road Between SR 99 and 8th Street/Farmington Road

Under EPAP Plus Project conditions, this roadway segment would operate at LOS F. LOS F is considered unacceptable. Compared to EPAP No Project Conditions, the project-related increase in volume would be greater than five percent. Therefore, based on criteria presented in the

General Plan Policy Consistency Criteria section of this traffic impact study, the project-related inconsistency with General Plan policies is considered significant. The following improvement is recommended to improve operating conditions to acceptable LOS and reduce the project-related inconsistency with General Plan policies to a less than significant level:

- Widen the portions of this roadway segment which are one lane in each direction to two lanes in each direction.

As shown in **Table 20**, implementation of the above recommended improvement would improve traffic operations to LOS D. LOS D is considered acceptable.

This improvement is also recommended under Existing Conditions and the EPAP No Project scenario.

Table 20. Roadway Segment Level of Service -
Existing Plus Approved Projects (EPAP) Plus Project Conditions
With Recommended Improvements

Roadway Segment	Number of Lanes	Daily Capacity	Daily Volume	V/C Ratio	Level of Service
105. Mariposa Road - Between SR 99 and 8th St./Farmington Rd	4	38,200	27,296	0.71	D

Notes: "SR" = State Route. "V/C Ratio" = volume-to-capacity ratio.

111. Arch-Airport Road, Between Qantas Lane and SR 99

Under EPAP Plus Project conditions, this roadway segment would operate at LOS E. LOS E is considered unacceptable. However, LOS would also be unacceptable under EPAP No Project conditions, and the project-related change in traffic volume would not be greater than a five percent increase. Therefore, based on criteria presented in the *General Plan Policy Consistency Criteria* section of this traffic impact study, the project-related inconsistency with General Plan policies is considered less than significant and no improvements are recommended.

RAMP JUNCTION LEVELS OF SERVICE

Figure 23 and **Figure 24** present the a.m. peak hour and p.m. peak hour traffic volumes at the ramp junctions under EPAP Plus Project conditions. **Table 21** presents the a.m. peak hour and p.m. peak hour LOS at each study ramp junction under EPAP Plus Project conditions. The worksheets presenting the calculation of LOS are included in the technical appendix.

Under EPAP Plus Project conditions, LOS at 10 of the 13 study ramp junctions would be at acceptable LOS D or better during both the a.m. peak hour and the p.m. peak hour. No improvements would be needed on these 10 ramp junctions to achieve acceptable LOS. The following are the three ramp junctions that would experience unacceptable LOS.

201. SR 99 Southbound Weave Area Between Fremont Street and Crosstown Freeway

Under EPAP Plus Project conditions, this ramp junction would operate at LOS F during the a.m. peak hour, and LOS C during the p.m. peak hour. LOS F is considered unacceptable. However, LOS would also be unacceptable under EPAP No Project conditions, and the project-related change in freeway and ramp volumes would not be greater than a five percent increase. Therefore, based on criteria presented in the *General Plan Policy Consistency Criteria* section of this traffic impact study, the project-related inconsistency with General Plan policies is considered less than significant and no improvements are recommended.

205. SR 99 at Golden Gate Avenue Northbound On-Ramp Merge

Under EPAP Plus Project conditions, this ramp junction would operate at LOS C during the a.m. peak hour, and LOS F during the p.m. peak hour. LOS F is considered unacceptable. However, LOS would also be unacceptable under EPAP No Project conditions, and the project-related change in freeway and ramp volumes would not be greater than a five percent increase. Therefore, based on criteria presented in the *General Plan Policy Consistency Criteria* section of this traffic impact study, the project-related inconsistency with General Plan policies is considered less than significant and no improvements are recommended.

211. SR 99 at Arch-Airport Road Northbound On-Ramp Merge

Under EPAP Plus Project conditions, this ramp junction would operate at LOS C during the a.m. peak hour, and LOS E during the p.m. peak hour. LOS E is considered unacceptable. However, LOS would also be unacceptable under EPAP No Project conditions, and the project-related change in freeway and ramp volumes would not be greater than a five percent increase. Therefore, based on criteria presented in the *General Plan Policy Consistency Criteria* section of this traffic impact study, the project-related inconsistency with General Plan policies is considered less than significant and no improvements are recommended.

Table 21. State Route 99 Ramp Merge, Diverge, and Weave Level of Service - Existing Plus Approved Projects (EPAP) Plus Project Conditions

	Ramp Junction	AM Peak Hour Freeway Volume	AM Peak Hour Ramp Volume	AM Peak Hour Density	AM Peak Hour LOS	PM Peak Hour Freeway Volume	PM Peak Hour Ramp Volume	PM Peak Hour Density	PM Peak Hour LOS
201	SB Weave Between	7,012	515	> Capacity	F	5,218	353	26.9	C
	Fremont St & Crosstown Fwy	4,723	2,804			4,002	1,569		
202	NB Weave Between	4,385	289	22.2	C	6,251	376	32.7	D
	Crosstown Fwy & Fremont St	3,109	1,565			4,735	1,892		
203	NB at Crosstown Fwy Off-Ramp	3,100	2,832	< 10	A	4,750	2,246	< 10	A
204	Golden Gate Ave SB Off-Ramp	4,852	564	< 10	A	4,399	627	< 10	A
205	Golden Gate Ave NB On-Ramp	4,913	571	27.1	C	5,577	784	33.0	F
206	SB Weave Between	4,823	340	24.8	C	4,396	403	22.9	C
	Golden Gate Ave & Mariposa Rd	4,250	913			4,113	686		
207	NB Weave Between	4,882	355	25.2	C	5,510	510	29.4	D
	Mariposa Rd & Golden Gate Ave	4,715	522			5,281	739		
208	Mariposa Rd SB On-Ramp (Slip)	5,246	234	26.7	C	3,552	310	18.2	B
209	Mariposa Rd NB Off-Ramp	3,890	465	24.8	C	5,783	329	33.3	D
210	Arch-Airport Rd SB Off-Ramp	2,485	2,995	< 10	A	2,749	1,113	< 10	A
211	Arch-Airport Rd NB On-Ramp	3,192	1,162	22.2	C	3,493	2,619	38.0	E
212	Arch-Airport Rd SB On-Ramp	2,485	748	16.6	B	2,749	1,259	22.2	C
213	Arch-Airport Rd NB Off-Ramp	3,192	1,272	23.0	C	3,493	641	23.1	C

Notes: "LOS" = Level of Service. "NB" = Northbound. "SB" = Southbound.
Density is expressed in passenger cars per mile per lane. "> Capacity" = volume-to-capacity ratio greater than 1.0.
For weave areas, north freeway and ramp volumes are listed first and south volumes are listed second.

INCREASE IN DEMAND FOR TRANSIT

Implementation of the proposed Mariposa Industrial Park project would result in an increase in demand for public transit service. Currently, there is limited direct public transit service to the vicinity of the project site, and the development of urban uses would result in an increase in demand. The frequency and proximity of future transit service is not known at this time and, as a result, demand for transit cannot be quantified. However, it is expected that SJRTD can accommodate the additional passengers the project would generate. This is considered a less-than-significant impact. No mitigation measures are required

INCREASE IN DEMAND FOR BICYCLE AND PEDESTRIAN FACILITIES

Implementation of the Mariposa Industrial Park project would result in an increase in demand for bicycle and pedestrian facilities. As noted in the *Project Description* section of this traffic impact study, the proposed project includes sidewalks along the project site frontage of Mariposa Road. Because sidewalks are not present along the Mariposa Road frontage of nearby properties, the sidewalks along the Mariposa Industrial Park project site frontage would be discontinuous in the near-term. In the longer-term, sidewalks along the project site frontage would incrementally improve the safety and convenience of bicycle and pedestrian travel along Mariposa Road. The City General Plan includes widening of Mariposa Road to four lanes in the future, and the Mariposa Industrial Park project site frontage improvements would contribute to a more continuous system of bicycle and pedestrian improvements along Mariposa Road. Therefore, the increase in demand for facilities is considered a less-than-significant impact. No mitigation measures would be required.

CUMULATIVE NO PROJECT CONDITIONS

The Cumulative No Project condition represents a long-term future background condition. Development of approved and planned land uses and roadway improvements are assumed in this condition. The Cumulative No Project condition, therefore, serves as the baseline condition used to assess the significance of long-term project-related traffic effects.

The Cumulative No Project condition does not include development of the Mariposa Industrial Park project as proposed. Consistent with the approach described in the *City of Stockton Transportation Impact Analysis Guidelines* (City of Stockton 2003), this scenario serves as baseline condition for determining project-related impacts, and the traffic analysis of this condition assumes land uses on the project site consistent with the City of Stockton General Plan (City of Stockton 2018a).

TRAFFIC VOLUME FORECASTS

As previously described in the *Travel Forecasting* section of this traffic impact study, the City of Stockton Travel Demand Model (City of Stockton 2018b) was used to develop forecasts of background increases in traffic volumes under Cumulative No Project conditions. The increases in traffic volumes reflect development of land uses consistent with approved land use designations. The model was modified in the vicinity of the project site to add detail to the model and more accurately represent how land uses are provided access to the roadway network. Minor changes were also made to land uses in the model to reflect existing and planned development.

Application of the methods described in the *Travel Forecasting* section results in the daily traffic volumes presented in **Table 22**.

ROADWAY IMPROVEMENTS

The analysis of Cumulative No Project conditions assumes roadway improvements consistent with the long-term future context. These include improvements from the City of Stockton General Plan (City of Stockton 2018b), and the *Draft Environmental Impact Report - Mariposa Lakes Specific Plan - State Clearinghouse #2006022035* (City of Stockton 2007). The improvements include:

- widening of Mariposa Road northwest of Carpenter Road to six lanes,
- widening of Mariposa Road southeast of Carpenter Road to four lanes, and
- widening of SR 99 from north of the Crosstown Freeway to south of Arch Road to eight lanes.

The resulting number of travel lanes assumed for study roadway segments are shown in **Table 22**.

Table 22. Roadway Segment Level of Service - Cumulative No Project Conditions

Roadway Segment	Number of Lanes	Daily Capacity	Daily Volume	V/C Ratio	Level of Service
101. SR 99 - North of Crosstown Freeway (SR 4)	8	172,800	144,268	0.83	D
102. Crosstown Freeway - West of SR 99	8	172,800	131,917	0.76	D
103. SR 99 - Between Crosstown Fwy and Golden Gate Avenue	8	172,800	139,739	0.81	D
104. SR 99 - Between Golden Gate Ave and Mariposa Rd	8	172,800	168,962	0.98	E
105. Mariposa Road - Between SR 99 and 8th St./Farmington Rd	6	59,300	36,756	0.62	C
106. Mariposa Road - Between Carpenter Road and SR 99	6	59,300	32,512	0.55	C
107. Mariposa Road - Between the Project Site and Carpenter Road	4	38,200	23,483	0.61	C
108. Mariposa Road - Southeast of the Project Site	4	38,200	23,483	0.61	C
109. Mariposa Road - East of Austin Road	4	38,200	13,259	0.35	A
110. SR 99 - Between Mariposa Road and Arch-Airport Road	8	172,800	115,758	0.67	C
111. Arch-Airport Road - Between Qantas Lane and SR 99	6	59,300	67,860	1.14	F
112. SR 99 - South of Arch-Airport Road	8	172,800	106,202	0.61	C

Notes: "SR" = State Route. "V/C Ratio" = volume-to-capacity ratio.

ROADWAY SEGMENT LEVELS OF SERVICE

Table 22 presents a summary of LOS on the 12 study roadway segments under Cumulative No Project conditions. Ten of the roadway segments would operate at acceptable LOS D or better. No improvements are needed on these 10 roadway segments to achieve acceptable LOS. The following two roadway segments would operate at unacceptable LOS.

104. SR 99 Between Golden Gate Avenue and Mariposa Road

Under Cumulative No Project condition, this roadway segment would operate at LOS E. LOS E is considered unacceptable. This roadway segment is already assumed to be eight lanes wide under Cumulative conditions. In the *Transportation Concept Report State Route 99* (California Department of Transportation 2017), Caltrans describes the eight-lane width as the conceptual facility width, and this is considered to be the maximum feasible size in this traffic impact study. Therefore, improvements are not recommended.

111. Arch-Airport Road, Between Qantas Lane and SR 99

Under Cumulative No Project conditions, this roadway segment would operate at LOS F. LOS F is considered unacceptable. The following improvement is recommended to improve LOS on this roadway segment:

- Widen this roadway segment from six lanes to eight lanes.

Implementing this recommended improvement would result in this roadway segment operating at LOS E. This LOS is considered unacceptable. However, eight lanes is considered to be the maximum feasible width for this roadway segment. A summary of LOS with recommended improvements is presented in **Table 23**.

Table 23. Roadway Segment Level of Service -
Cumulative No Project Conditions With Recommended Improvements

Roadway Segment	Number of Lanes	Daily Capacity	Daily Volume	V/C Ratio	Level of Service
111. Arch-Airport Road - Between Qantas Lane and SR 99	8	78,400	67,860	0.87	E

Notes: "SR" = State Route. "V/C Ratio" = volume-to-capacity ratio.

CUMULATIVE PLUS PROJECT IMPACTS

The analysis of Cumulative Plus Project conditions describes long-term traffic operations in the year 2040 assuming development of the proposed project. Comparing traffic operation under this condition to traffic operations under Cumulative No Project conditions allows an identification of the long-term project-related effects of the proposed project.

The development of the Mariposa Industrial Park project would result in vehicle traffic to and from the project site. Methods used to estimate project-related travel have been previously described in the *Existing Plus Approved Projects Plus Mariposa Industrial Park Project Impacts* section of this traffic impact study. **Table 24** displays the resulting Cumulative Plus Project roadway segment daily traffic volumes.

Development of forecasts of future year background traffic volumes has been previously described in the *Cumulative No Project Conditions* section of this traffic impact study.

Project-related roadway improvements and future year background roadway improvements assumed in this analysis have been previously described in the *Existing Plus Approved Projects Plus Mariposa Industrial Park Project Impacts* and the *Cumulative No Project Conditions* sections of this traffic impact study.

ROADWAY SEGMENT LEVELS OF SERVICE

Table 24 presents a summary of LOS on the 12 study roadway segments under Cumulative Plus Project conditions. Nine of the 12 roadway segments would operate at acceptable LOS D or better. No improvements are needed on these nine roadway segments to achieve acceptable LOS. The following three roadway segments would operate at unacceptable LOS.

104. SR 99 Between Golden Gate Avenue and Mariposa Road

Under Cumulative Plus Project conditions, this roadway segment would operate at LOS F. LOS F is considered unacceptable. However, LOS would also be unacceptable under Cumulative No Project conditions, and the project-related change in traffic volume would not be greater than a five percent increase. Therefore, based on criteria presented in the *General Plan Policy Consistency Criteria* section of this traffic impact study, the project-related inconsistency with General Plan policies is considered less than significant and no improvements are recommended.

Table 24. Roadway Segment Level of Service - Cumulative Plus Project Conditions

Roadway Segment	Number of Lanes	Daily Capacity	Daily Volume	V/C Ratio	Level of Service
101. SR 99 - North of Crosstown Freeway (SR 4)	8	172,800	148,870	0.86	D
102. Crosstown Freeway - West of SR 99	8	172,800	135,307	0.78	D
103. SR 99 - Between Crosstown Fwy and Golden Gate Avenue	8	172,800	147,731	0.85	D
104. SR 99 - Between Golden Gate Ave and Mariposa Rd	8	172,800	177,140	1.03	F
105. Mariposa Road - Between SR 99 and 8th St./Farmington Rd	6	59,300	37,820	0.64	C
106. Mariposa Road - Between Carpenter Road and SR 99	6	59,300	43,992	0.74	D
107. Mariposa Road - Between the Project Site and Carpenter Road	4	38,200	35,371	0.93	E
108. Mariposa Road - Southeast of the Project Site	4	38,200	23,965	0.63	C
109. Mariposa Road - East of Austin Road	4	38,200	13,717	0.36	A
110. SR 99 - Between Mariposa Road and Arch-Airport Road	8	172,800	117,898	0.68	C
111. Arch-Airport Road - Between Qantas Lane and SR 99	6	59,300	69,172	1.17	F
112. SR 99 - South of Arch-Airport Road	8	172,800	107,006	0.62	C

Notes: "SR" = State Route. "V/C Ratio" = volume-to-capacity ratio.

107. Mariposa Road, Between the Project Site and Carpenter Road

Under long-term future Cumulative Plus Project conditions, this roadway segment would operate at LOS E. LOS E is considered unacceptable. Compared to Cumulative No Project Conditions, the project-related increase in volume would be greater than five percent. Therefore, based on criteria presented in the *General Plan Policy Consistency Criteria* section of this traffic impact study, the project-related inconsistency with General Plan policies is considered significant. The following improvement is recommended to improve operating conditions to acceptable LOS and reduce the project-related inconsistency with General Plan policies to a less than significant level:

- Under long-term future cumulative conditions, widen this roadway segment from four lanes to six lanes.

As shown in **Table 25**, implementation of the above recommended improvement would improve traffic operations to LOS C. LOS C is considered acceptable.

Table 25. Roadway Segment Level of Service - Cumulative Plus Project Conditions With Recommended Improvements

Roadway Segment	Number of Lanes	Daily Capacity	Daily Volume	V/C Ratio	Level of Service
107. Mariposa Road - Between the Project Site and Carpenter Road	6	59,300	35,371	0.60	C

Notes: "SR" = State Route. "V/C Ratio" = volume-to-capacity ratio.

111. Arch-Airport Road, Between Qantas Lane and SR 99

Under Cumulative Plus Project conditions, this roadway segment would operate at LOS F. LOS F is considered unacceptable. However, LOS would also be unacceptable under Cumulative No Project conditions, and the project-related change in traffic volume would not be greater than a five percent increase. Therefore, based on criteria presented in the *General Plan Policy Consistency Criteria* section of this traffic impact study, the project-related inconsistency with General Plan policies is considered less than significant and no improvements are recommended.

PROJECT SITE ACCESS

To assess the adequacy of project site access under long-term future conditions, LOS at the two project site driveway intersections were analyzed under Cumulative Plus Project conditions. These two intersections are:

14. Mariposa Road & Northwest Project Driveway
15. Mariposa Road & Southeast Project Driveway

Cumulative Plus Project a.m. peak hour and p.m. peak hour traffic volumes and intersection lane geometrics at these two intersections are shown in **Figure 25**.

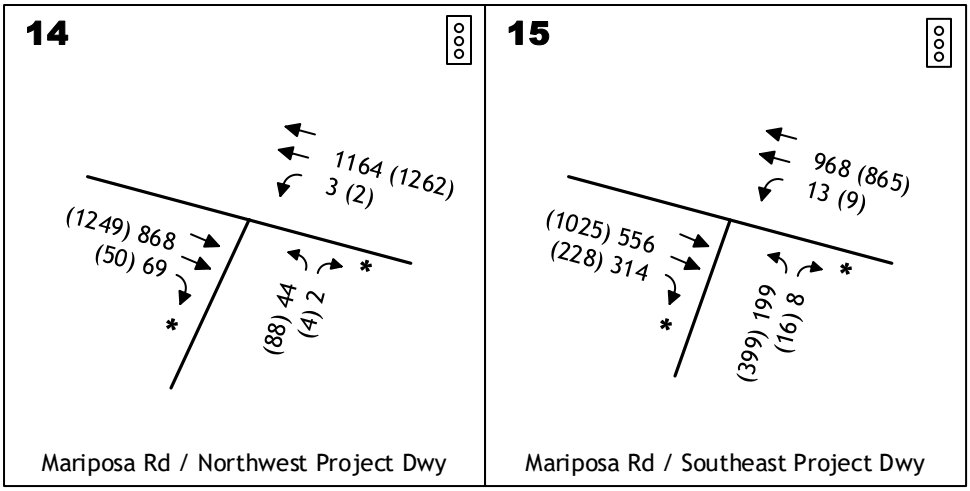
Table 26 presents the a.m. peak hour and p.m. peak hour LOS at the two study intersections under Cumulative Plus Project conditions. The worksheets presenting the calculation of LOS are included in the technical appendix.

Table 26. Intersection Level of Service - Cumulative Plus Project Conditions

	Study Intersections	Inters. Control	AM Peak LOS	AM Peak Delay	PM Peak LOS	PM Peak Delay
14	Mariposa Road & Northwest Project Driveway	Signal	A	3.2	A	5.1
15	Mariposa Road & Southeast Project Driveway	Signal	B	12.8	C	20.1

Notes: LOS = Level of Service. "Inters. Control" = Type of intersection control.
"Signal" = Signalized light control.
Delay is measured in seconds per vehicle.
Per City of Stockton guidelines, intersection average delay is reported for all intersections.

Under Cumulative Plus Project conditions, LOS at both of the two project site access intersections would be at acceptable LOS C or better during both the a.m. peak hour and the p.m. peak hour. As a result, traffic operations at the project site access locations are considered to be adequate. No improvements would be needed at these two intersections to achieve acceptable LOS.



Legend

XX AM Peak Hour Volume

(XX) PM Peak Hour Volume

Signalized Intersection

* "Free" Right Turn

NORTH

N.T.S.

CUMULATIVE PLUS PROJECT INTERSECTION TRAFFIC VOLUMES AND LANE CONFIGURATIONS

KD Anderson & Associates, Inc.
Transportation Engineers

0780-18 RA 7/9/2021

figure 25

VEHICLE MILES TRAVELED

As noted earlier in the *Significance Thresholds* section of this traffic impact study, the effects of the proposed project on VMT are determined by comparing travel associated with the Mariposa Industrial Park project as proposed to travel associated with development of the project site with the current General Plan land use designations.

As noted earlier in the *Project Description* section of this traffic impact study, the Mariposa Industrial Park project proposes industrial land uses on the project site. As also noted in the *Project Description* section, the project site currently has an Industrial land use designation in the City of Stockton General Plan. Therefore, in this traffic impact study, vehicle travel associated with the Mariposa Industrial Park project would be the same as the Industrial land uses currently designated in the City of Stockton General Plan. That is, implementation of the Mariposa Industrial Park project would result in no net change from travel associated with the current General Plan-designated land uses.

VMT is calculated by multiplying the number of vehicle trips by the length of vehicle trips. As a result, a certain percent change in the number of vehicle trips would cause an equivalent change in VMT. Therefore, for the Mariposa Industrial Park project, a comparison of vehicle trips is considered equivalent to a comparison of VMT. Because the Mariposa Industrial Park project would result in no net change from travel associated with the current General Plan–designated land use, the project would result in no net change in VMT.

As described in the *Vehicle Miles Traveled Significance Threshold* section of this traffic impact study,

> "Consistent with General Plan Action TR4.3A, if a project would result in a 15 percent or more reduction of vehicle travel, a project is considered to have a less-than-significant impact. A project that would not result in a reduction of 15 percent or more is considered to have a significant impact."

Because the Mariposa Industrial Park project would not result in a 15 percent reduction in VMT, the project is considered to have a significant impact on VMT. Implementation of the following mitigation measures would reduce the impact of the project on VMT. The numbering of the following mitigation measures is from the document *Quantifying Greenhouse Gas Mitigation Measures - A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures* (California Air Pollution Control Officers Association 2010), which contains more detailed information on these measures. The numbering of the following mitigation measures is not sequential in this traffic impact study. The out-of-sequence numbering is provided below to allow direct reference to the California Air Pollution Control Officers Association (CAPCOA) document. The "TRT" acronym shown below is used in the numbering of the CAPCOA document and refers to Trip Reduction – Transportation.

Mitigation Measure TRT-1. Implement Commute Trip Reduction Program - Voluntary

The Mariposa Industrial Park project will implement a Commute Trip Reduction

(CTR) Program – Voluntary with employers to discourage single-occupancy vehicle trips and encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking. This is a multi-strategy program that encompasses a combination of individual measures.

The CTR program will provide employees with assistance in using alternative modes of travel, and provide both "carrots" and "sticks" to encourage employees. The CTR program should include all of the following:

- Carpooling encouragement
- Ride-matching assistance
- Preferential carpool parking
- Flexible work schedules for carpools
- Half time transportation coordinator
- Vanpool assistance
- Bicycle end-trip facilities (parking, showers and lockers)

Other strategies may also include:

- new employee orientation of trip reduction and alternative mode options,
- event promotions and publications,
- flexible work schedule for all employees,
- transit subsidies,
- parking cash-out or priced parking,
- shuttles,
- emergency ride home, and
- improved on-site amenities.

Mitigation Measure TRT-5. Provide End of Trip Bicycle Facilities

The Mariposa Industrial Park project will provide "end-of-trip" facilities for bicycle riders including showers, secure bicycle lockers, and changing spaces. End-of-trip facilities encourage the use of bicycling as a viable form of travel to destinations, especially to work. End-of trip facilities provide the added convenience and security needed to encourage bicycle commuting.

Mitigation Measure TRT-11. Provide Employer-Sponsored Vanpool/Shuttle

The Mariposa Industrial Park project will implement an employer-sponsored vanpool or shuttle. A vanpool will usually service employees' commute to work while a shuttle will service nearby transit stations and surrounding commercial centers. Employer-sponsored vanpool programs entail an employer purchasing or leasing vans for employee use, and often subsidizing the cost of at least program administration, if not more. The driver usually receives personal use of the van, often for a mileage fee. Scheduling is within the employer's purview, and rider charges are normally set on the basis of vehicle and operating cost.

Implementation of the measures listed above would reduce project-related VMT and reduce the significance of the impact on VMT. However, quantification of the reduction is not possible at this time. At the time this traffic impact study was prepared, potential occupants of the Mariposa Industrial Park project were not identified. While the type of land use is expected to be industrial, specific tenants were not known. As a result, the following factors which would affect the ability to implement VMT reduction measures are not known:

- hours of operation, including times of the day when work shift would change;
- the portion of work positions which would be full-time versus part-time;
- feasibility of implementing flexible work schedules; and
- degree to which working remotely is feasible.

Because the potential occupants of the project are not known, it is not possible to establish an enforceable commitment to reduce VMT by more than 15 percent. As a result, this impact is considered significant and unavoidable.

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TECHNICAL APPENDICES

IN SEPARATE ELECTRONIC FILES

FEIR APPENDIX D
AIR QUALITY IMPROVEMENT MEASURES

TRAFFIC IMPACT STUDY

FOR

THE MARIPOSA INDUSTRIAL PARK PROJECT

Stockton, California

Prepared For:

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July 9, 2021

0780 -18

TRAFFIC IMPACT STUDY FOR
THE MARIPOSA INDUSTRIAL PARK PROJECT

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EXECUTIVE SUMMARY

This *Executive Summary* is a brief overview of the analysis presented in this traffic impact study. It is not intended to be a comprehensive description of the analysis. For more details, the reader is referred to the full description presented in the traffic impact study.

This traffic impact study presents an analysis of the traffic-related effects of the Mariposa Industrial Park project. The project is located in unincorporated San Joaquin County, southeast of the City of Stockton, east of State Route (SR) 99, north of Littlejohns Creek, southwest of Mariposa Road. The project site is approximately 203.48 acres in size and is proposed to include 3,616,870 building square feet (sf) of high-cube warehouse industrial land use.

Access to the Mariposa Industrial Park site would be provided via two driveway connections to Mariposa Road.

This traffic impact study includes analysis of:

- 15 intersections,
- 12 roadway segments, and
- 13 freeway ramp junction areas.

These study facilities are analyzed under the following five development scenarios:

- Existing Conditions,
- Near-Term Future Existing Plus Approved Projects (EPAP) No Mariposa Industrial Park Project Conditions,
- Near-Term Future EPAP Plus Mariposa Industrial Park Project Conditions,
- Long-Term Future Cumulative No Mariposa Industrial Park Project Conditions, and
- Long-Term Future Cumulative Plus Mariposa Industrial Park Project Conditions.

Under Existing Conditions, all study intersections operate at conditions which are considered acceptable. One study roadway segment and one freeway weave area operate at conditions which are considered unacceptable. This traffic impact study presents a recommended improvement for the study roadway segment.

Under EPAP No Mariposa Industrial Park Project conditions, three study intersections, two study roadway segments, and three study freeway ramp and weave facilities would experience operating conditions which are considered unacceptable. This traffic impact study presents recommended improvements for two of the study intersections, and one of the study roadway segments.

Under EPAP Plus Mariposa Industrial Park Project conditions, four study intersections, two study roadway segments, and three study freeway ramp and weave facilities would experience operating conditions which are considered unacceptable. The project-related change at two study intersections and one study roadway segment would be considered a significant inconsistency with General Plan policies and recommended improvements are identified to reduce the inconsistency to a less than significant level.

Under Cumulative No Mariposa Industrial Park Project conditions, two study roadway segments would experience operating conditions which are considered unacceptable. This traffic impact study presents recommended improvements for one of these two facilities.

Under Cumulative Plus Mariposa Industrial Park Project conditions, three study roadway segments would experience operating conditions which are considered unacceptable. The project-related change at one study roadway segment would be considered a significant inconsistency with General Plan policies and a recommended improvement is identified to reduce the inconsistency to a less than significant level. The project-related change at two of these three facilities would be less than thresholds considered to be significant. Therefore, the project-related inconsistency at these facilities is considered less than significant.

In addition to presenting an analysis of traffic operating conditions, this traffic impact study also presents analysis of project-related impacts on

- demand for public transit services,
- demand for bicycle and pedestrian facilities, and
- vehicle miles traveled.

INTRODUCTION

STUDY PURPOSE

This traffic impact study presents an analysis of the traffic-related effects of the proposed Mariposa Industrial Park project.

PROJECT DESCRIPTION

The following is a description of the Mariposa Industrial Park project.

Project Location

The Mariposa Industrial Park project site is in the San Joaquin County unincorporated area, adjacent to the southeastern limits of the City of Stockton. **Figure 1** presents an aerial photograph of the vicinity of the project site. The project site encompasses 203.48 acres.

Project Land Uses

The project proposes to develop the project site for light industrial land uses, primarily "high-cube" warehouses. The details of the proposed development are discussed below.

The project proposes the annexation of the project site into the City of Stockton. The City would submit an annexation application to the San Joaquin Local Agency Formation Commission (LAFCO), which would be responsible for a decision on the annexation.

The project site is currently zoned by the County as AG-40 – General Agriculture with a 40-acre minimum parcel size. The project would include a request that the City pre-zone the entire project site Industrial, Limited (IL). This pre-zoning would be consistent with the current Industrial designation of the project site under the City of Stockton General Plan (City of Stockton 2018a) and with the proposed project.

Upon annexation, the project site is proposed to be developed with light industrial land uses, mainly high-cube warehouses. **Figure 2** shows a conceptual site plan. A "high-cube warehouse" is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of approximately 24 feet or more, and is used primarily for the storage and/or consolidation of manufactured goods (and, to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. A typical high-cube warehouse has a high level of on-site automation and logistics management, which enable highly efficient processing of goods through the warehouse.

As shown in **Figure 2**, the Mariposa Industrial Park project would include 3,616,870 building square feet of proposed development.

A total of approximately 2,900 parking stalls would be provided throughout the project site. Of that total, approximately 1,800 stalls would be for automobiles, 37 of which would be accessible to drivers with disabilities. The remaining approximately 1,100 stalls would be for trucks and trailers.

Circulation

Access would be from two driveways off Mariposa Road in the northeastern portion of the project site. In this traffic impact study, these two access locations are referred to as the "Southeast Project Driveway" and the "Northwest Project Driveway". The Southeast Project Driveway would provide the main access to the project site, with an access road leading to most of the proposed development. The Northwest Project Driveway would provide access to the two northernmost buildings proposed on the site. Curb, gutter, and sidewalk would be installed along existing undeveloped street frontage in accordance with City standards. In addition, access to the project site would be made available from Marfargoa Road and Clark Road for emergency vehicles only. **Figure 3** shows a striping plan for the project site frontage along Mariposa Road.

Desirable intersection spacing is often considered to be 1,000 feet between intersections. The distance between the driveway intersections for the Southeast Project Driveway and the Northwest Project Driveway is less than 1,000 feet. However, both of the driveway intersections would be "T" intersections. Neither would be a four-leg intersection. Because both driveways would connect at "T" intersections, neither intersection would have southeastbound-to-northeastbound left-turn movements. The absence of a need for vehicle storage for southeastbound-to-northeastbound left-turn movement at the Southeast Project Driveway intersection results in the distance between the two intersections being available for the northwestbound-to-southwestbound left-turn movement at the Northwest Project Driveway. As a result, the distance between the two project driveway intersections is considered to be adequate.

In the near-term future, this traffic impact study assumes the Southeast Project Driveway connection with Mariposa Road would include signalized intersection control. In the near-term future, the Northwest Project Driveway would include unsignalized stop-sign control, with the driveway being the controlled approach. In the long-term future, the Stockton General Plan includes widening of Mariposa Road from two lanes (one lane in each direction) to four lanes (two lanes in each direction). In the long-term future, this traffic impact study assumes both the Southeast Project Driveway connection and the Northwest Project Driveway connection would include signalized intersection control.

Project site frontage improvements will be geometrically designed to accommodate Surface Transportation Assistance Act (STAA) design vehicle truck movements and heavy truck loads.

OVERALL ANALYSIS APPROACH

As noted above, this traffic impact study presents an analysis of the traffic-related effects of the Mariposa Industrial Park project. This analysis is conducted using near-term future background conditions and long-term future background conditions. Future background conditions are based

on the City of Stockton General Plan. Analysis of traffic operating conditions under the following five scenarios is presented in this traffic impact study:

- Existing Conditions,
- EPAP No Mariposa Industrial Park Project,
- EPAP Plus Mariposa Industrial Park Project,
- Cumulative No Project, and
- Cumulative Plus Project.

Existing Plus Approved Projects conditions are a near-term background condition which includes existing traffic levels, and traffic associated with approved but unconstructed land use development projects in vicinity of the project site.

Cumulative conditions with the City of Stockton General Plan are a long-term background condition which includes future year forecasts of traffic volumes, based on development of surrounding land uses. This set of scenarios assumes 2040 conditions with future development consistent with the General Plan.

VICINITY MAP

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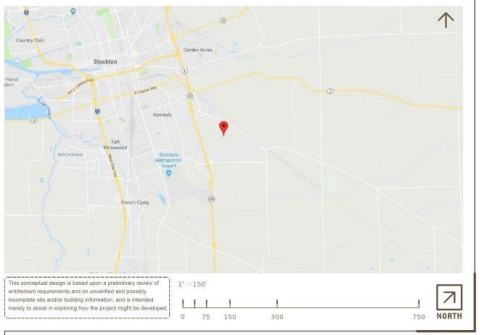
Transportation Engineers

0780-18 RA 3/11/2021

figure 1

PROJECT DATA:

SITE AREA:		
GROSS:		208.24 AC
		9,070,892 SF
DETENTION:	@ 10%	875,088 SF
NET:		188.15 AC
		8,195,804 SF
BUILDING FOOTPRINT:		
BUILDING 1		670,320 SF
BUILDING 2		637,450 SF
BUILDING 3		1,021,440 SF
BUILDING 4		1,021,440 SF
BUILDING 5		64,260 SF
BUILDING 6		100,980 SF
BUILDING 7		100,980 SF
TOTAL FOOTPRINT:		3,616,870 SF
BUILDING USE:		
WAREHOUSE		3,436,027 SF
OFFICE	@ 5%	180,844 SF
COVERAGE:		
GROSS:		40%
NET:		44%
PARKING REQUIRED:		
WAREHOUSE	1/2000 SF	1,718 STALLS
PARKING PROVIDED:		
AUTO:		1,831 STALLS
		@0.51/1000 SF
REQ. ACCESSIBLE		*37 STALLS*
TRAILER:		1,107 STALLS



scheme: 1

Conceptual Site Plan

Marfargoa Road
Stockton, CA 95215

WARE MALCOMB

SNR19-0015-00
07.10.2020

SHEET
1

SITE PLAN

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figure 2

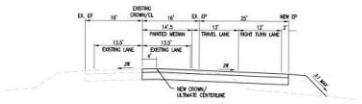
DETAIL 1
SCALE 1" = 10'

DECELERATION / TURN LANE CALCULATIONS:

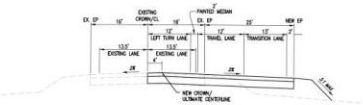
- POSTED SPEED: 55 MPH
- DEPARTURE SPEED: 45 MPH (19% RED. OF POSTED SPEED)
- STOPPING SIGHT DISTANCE (45 MPH): 360'
- BAY TAPER LENGTH: 120'
- PROPOSED TURN LANE: 380'
- TOTAL LENGTH: 500'
- STORAGE AVAILABLE: 500' - 360' = 140'

ACCELERATION LANE CALCULATIONS:

- POSTED SPEED: 55 MPH
- ACCELERATION LANE: 300'
- TAPER DISTANCE (55 MPH): 12*55 = 660'
- TOTAL LENGTH: 960'



SECTION A-A
NOT TO SCALE



SECTION B-B
NOT TO SCALE

REVISION

PRELIMINARY

KIER+WRIGHT
2850 Collier Canyon Road
Livermore, CA 94551
Phone: (925) 245-8788
www.kierwright.com

INTERIM STRIPING PLAN
OF
MARIPOSA INDUSTRIAL PARK
FOR
GREENLAW PARTNERS
STOCKTON, CALIFORNIA

DATE	JUNE, 2021
SCALE	AS SHOWN
DESIGNER	RME
DRAWN BY	SA
JOB NO.	A20631
SHEET	EX-1
OF	1 SHEETS

STRIPING PLAN

EXISTING SETTING

This section of this traffic impact study presents a description of existing conditions in the study area. Information presented in this section of the study is based on on-site field observations, traffic count data collected for this study, and other data available from local and state agencies.

This section of the traffic impact study also describes analysis methods applied for this study, and thresholds used to determine the significance of project-related effects.

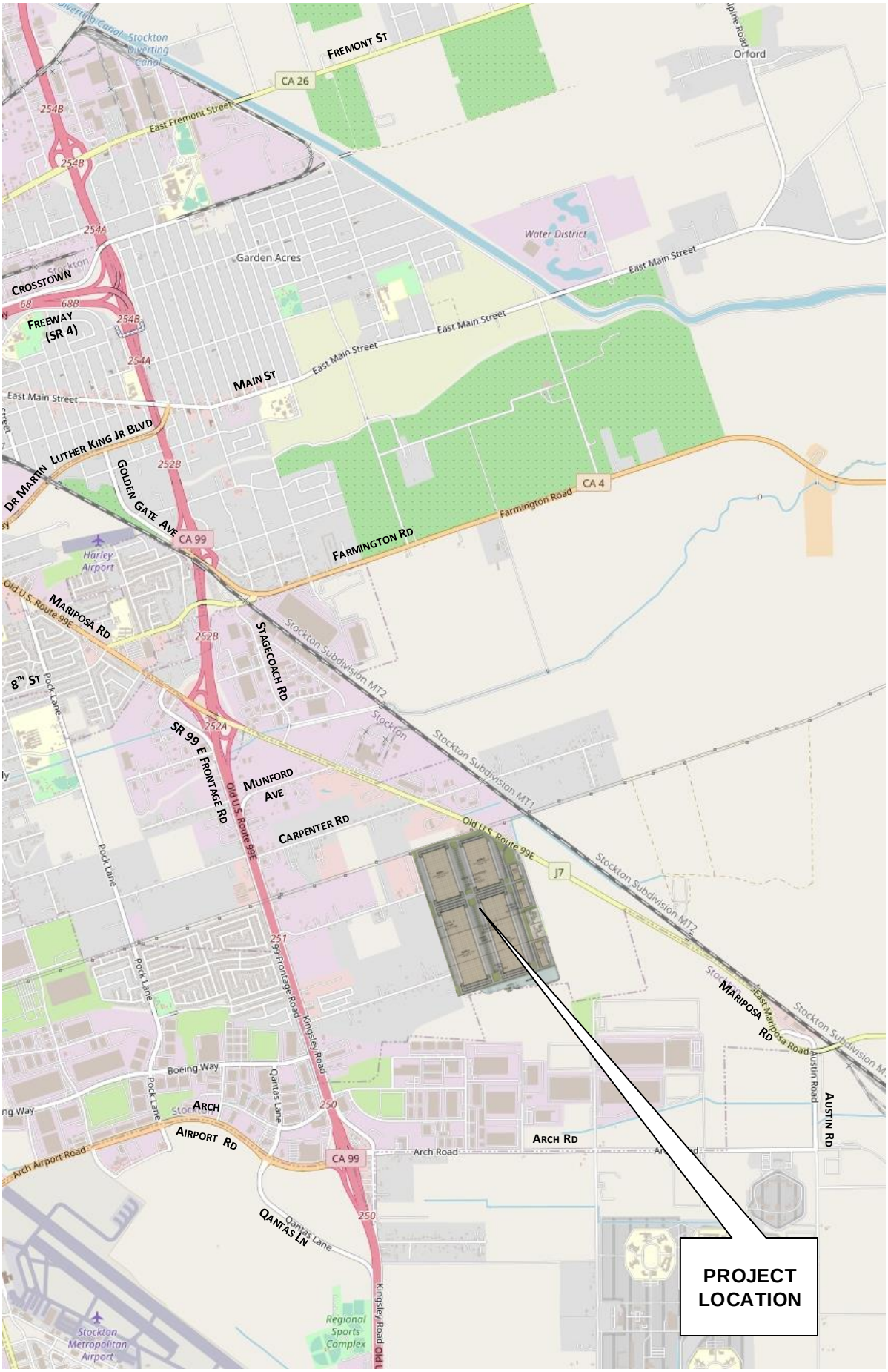
STUDY AREA ROADWAYS

This traffic impact study presents analyses of traffic operating conditions at intersections, on roadways, and at freeway ramp junctions, in the study area that may be affected by the proposed project. The limits of the study area were identified through discussions with City of Stockton staff (Moore pers. comm.).

The following is a description of roadways that provide access to the proposed project site. These roadways are shown in **Figure 1** and **Figure 4**.

State Route 99 is a freeway that traverses the Central Valley, connecting Sacramento and points north with numerous Central Valley cities, including Modesto, Merced, Fresno and Bakersfield. Three travel lanes are provided in each direction in the vicinity of the project site, with auxiliary lanes present at some locations. Twelve interchanges are provided along the 12-mile length of SR 99 within and adjacent to the Stockton City limits. Average daily traffic (ADT) volumes on SR 99 range between 80,000 and 95,000 in the vicinity of the project site based on data available at California Department of Transportation 2021. The speed limit on SR 99 is 65 miles per hour (mph) in the vicinity of the proposed project site.

Mariposa Road is a west-northwest-to-east-southeast roadway connecting Dr. Martin Luther King Jr. Boulevard in south Stockton with Escalon Bellota Road north of Escalon. In the vicinity of the project site, Mariposa Road is a two-lane roadway. The portion of Mariposa Road southeast of Carpenter Road has a 55 mph posted speed limit. Between Carpenter Road and 8th Street/Farmington Road (northwest of SR 99), the posted speed limit is 50 mph. Mariposa Road crosses a railroad track with a grade-separated railroad crossing located just east of the intersection with Austin Road. Limited pedestrian and no bicycle facilities are provided along the roadway within the study area. Mariposa Road is classified in the City of Stockton General Plan (City of Stockton 2018a) as an arterial roadway. In the future, the General Plan indicates Mariposa Road would be six lanes wide from Dr. Martin Luther King Jr. Boulevard to Carpenter Road and four lanes wide from Carpenter Road to southeast of Austin Road.



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STUDY AREA

figure 4

Crosstown Freeway (SR 4) is an east-west freeway that traverses downtown Stockton. The eastern terminus of the Crosstown Freeway is at SR 99. The western terminus of the Crosstown Freeway is at Navy Drive, approximately 1.4 miles west of Interstate 5 (I-5). The Crosstown Freeway is designated SR 4, which continues west to Interstate 80 in the San Francisco Bay Area, and continues east into the Sierra Nevada foothills. The portion of the Crosstown Freeway immediately west of SR 99 is eight lanes wide. It is six to eight lanes wide through downtown Stockton. West of I-5, it is four lanes wide.

Carpenter Road is a west-southwest-to-east-northeast two-lane roadway that connects with Mariposa Road at an unsignalized intersection approximately one-third of a mile west-northwest of the project site. The east-northeastern terminus of Carpenter Road is approximately 0.9 mile east-northeast of Mariposa Road. To the west-southwest, Carpenter Road terminates at SR 99 East Frontage Road, approximately 0.8 mile west-southwest of Mariposa Road. West of SR 99, a discontinuous portion of Carpenter Road extends west-southwest to Airport Way. Carpenter Road is classified in the City of Stockton General Plan (City of Stockton 2018a) as a collector roadway with a future east-northeast extension connecting to a future northern extension of Austin Road.

Munford Avenue is a west-southwest-to-east-northeast two-lane roadway that connects with Mariposa Road at a signalized intersection approximately 0.8 mile west-northwest of the project site. The east-northeastern terminus of Munford Avenue is at Mariposa Road. To the west-southwest, Munford Avenue terminates at SR 99 East Frontage Road, approximately 0.4 mile west-southwest of Mariposa Road. West of SR 99, a discontinuous portion of Munford Avenue extends approximately 0.4 mile west-southwest of SR 99.

Stagecoach Road is a north-south two-lane roadway with a southern terminus at a signalized intersection with Mariposa Road and a northern terminus at Farmington Road. The southwest leg of the intersection of Mariposa Road & Stagecoach Road is a gated driveway for Oldcastle Infrastructure.

Farmington Road is an east-west roadway with an overcrossing of SR 99. In the immediate vicinity of SR 99, it is two lanes wide. Approximately one-quarter mile east of SR 99, Farmington Road intersects with Golden Gate Avenue. East of this intersection, Farmington Road is two lanes to four lanes wide, with a center two-way left-turn lane (CTWLTL) along portions of the roadway. Farmington Road continues east into the Sierra Nevada foothills as SR 4. Approximately one-half mile west-southwest of SR 99, Farmington Road intersects with Mariposa Road. To the west-southwest of Mariposa Road, the roadway continues as 8th Street. Discontinuous portions of 8th Street extend to the southwest portion of Stockton.

Golden Gate Avenue is a northwest-to-southeast roadway with an interchange on SR 99. The roadway is four lanes wide southeast of SR 99 and two lanes wide northwest of SR 99. The southeastern terminus of Golden Gate Avenue is at Farmington Road, approximately one-quarter mile southeast of SR 99. Approximately one-third of a mile northwest of SR 99, Golden Gate Avenue transitions to a north-northwest – south-southeast alignment. This portion of Golden Gate Avenue has a north-northwest terminus at the Crosstown Freeway. Discontinuous portions of Golden Gate Avenue are present north of the Crosstown Freeway.

Fremont Street is a west-southwest – to – east-northeast roadway with an interchange on SR 99. In the immediate vicinity of SR 99 and extending west-southwest to Wilson Way, Fremont Street is four lanes wide. West of Wilson Way, discontinuous portions of Fremont Street are two lanes wide, traverse downtown Stockton, and terminate west of I-5. East-northeast of SR 99, Fremont Street is two lanes wide and is designated SR 26. SR 26 extends to the northeast into the Sierra Nevada foothills.

Austin Road is a north-south roadway that extends south from Mariposa Road, and passes through Manteca before terminating at Caswell Memorial State Park. Within the project study area, Austin Road is a two-lane roadway with no pedestrian or bicycle facilities. Austin Road is classified in the City of Stockton General Plan (City of Stockton 2018a) as an arterial roadway with a future west-northwest extension to Main Street.

Arch Road / Arch-Airport Road / Sperry Road / French Camp Road is an east-west roadway with several names. It is classified in the City of Stockton General Plan (City of Stockton 2018) as an arterial roadway. The roadway extends from Carolyn Weston Boulevard in the west to the Burlington Northern Santa Fe (BNSF) facility east of Austin Road. In the study area, Arch Road is generally a two-lane roadway with a posted speed limit of 45 mph. Additional lanes are provided at some portions, including the portion in the vicinity of the SR 99 interchange. Arch Road is currently undergoing improvements with some segments widened to provide additional travel capacity. In some cases, the widened portions are not yet striped to accommodate additional traffic. Sidewalks are provided along some portions of Arch Road, including portions on the north side from Logistics Drive to approximately 100 feet east of Fite Court, and on the south side from Logistics Drive to Newcastle Road. There are no bicycle facilities on Arch-Airport Road/Arch Road in the project study area.

SR 99 East Frontage Road runs parallel to and east of SR 99. North of Arch Road, this roadway curves to the east, becoming Munford Avenue, and terminates at Mariposa Road. South of Arch Road, the roadway becomes Kingsley Road, terminating approximately 1.5 miles south of Arch Road. SR 99 East Frontage Road is a two-lane roadway with limited pedestrian facilities and no bicycle facilities in the project study area.

Qantas Lane is a north-south roadway that begins at Boeing Way to the north. South of Arch-Airport Road, Qantas Lane becomes SR 99 West Frontage Road located on the west side of SR 99. North of Arch-Airport Road, Qantas Lane is a two-lane roadway, while four travel lanes are provided south of Arch-Airport Road. South of the vicinity of Arch-Airport Road, Qantas Lane transitions to a two-lane roadway (one lane in each direction). Limited pedestrian facilities and no bicycle facilities are provided along Qantas Lane within the project study area.

TRUCK ROUTES

The City of Stockton *Truck Routes* map (City of Stockton 2009) and *STAA Truck Routes* map (City of Stockton 2017) describe truck routes in the Stockton area. Some of the truck routes are designated for use by STAA design vehicle trucks. These are large vehicles that have relatively

large turning radii, and require roadway design features that accommodate the large turning radii. The following are designated truck routes in the vicinity of the project site:

- Mariposa Road from Dr. Martin Luther King Jr. Boulevard to east-southeast of Austin Road is a route for vehicles transporting flammable liquids.

- Sperry Road/Arch Airport Road/Arch Road from McKinley Avenue to Austin Road is a City designated truck route.

- Mariposa Road from Dr. Martin Luther King Jr. Boulevard to Munford Avenue is a designated STAA truck route. Portions are designated by the City and portions are designated by the County of San Joaquin.

- Munford Avenue from Mariposa Road to 3730 Munford Avenue is designated by the County as an STAA truck route.

- Golden Gate Avenue from SR 99 to Dr. Martin Luther King Jr. Boulevard is a County designated STAA truck route, and Dr. Martin Luther King Jr. Boulevard from Golden Gate Avenue to I-5 is a City designated STAA truck route.

- Fremont Street from Windsor Avenue (west of SR 99) to Cardinal Avenue (east of SR 99), and Cardinal Avenue from Fremont Street to 207 N. Cardinal Avenue are County designated STAA truck routes.

- French Camp Road/Sperry Road/Arch Airport Road/Arch Road from I-5 to Austin Road is a designated STAA truck route. Portions are designated by the City and portions are designated by the County.

- Qantas Lane from Arch-Airport Road to Boeing Way, and Boeing Way from Qantas Lane to Airport Way are City designated STAA truck routes.

- Newcastle Road north of Arch Road is a City designated STAA truck route.

Routes anticipated to be used by STAA trucks to access the project site include the following (Ebenal pers. comm.):

- SR 99 north of Fremont Street,
- SR 99 south of Arch Road,
- Crosstown Freeway west of SR 99,
- Golden Gate Avenue west of SR 99,
- Golden Gate Avenue east of SR 99,
- Mariposa Road west of SR 99,
- Boeing Way west of Qantas Lane,
- Arch-Airport Road west of Qantas Lane, and
- Airport Way.

A separate standalone assessment focusing on the potential effects of Mariposa Industrial Park project-related trucks is being prepared by the civil engineering firm Kier + Wright. The assessment will include effects associated with the potential use of STAA trucks. As appropriate, the truck assessment will be used as a source document for identifying truck-related impacts in the California Environmental Quality Act (CEQA) environmental impact report (EIR) for the Mariposa Industrial Park project and needed mitigation measures.

PUBLIC TRANSPORTATION

The San Joaquin Regional Transit District (SJRTD) is the primary provider of public transportation service in San Joaquin County, providing services to the Stockton metropolitan area, as well as inter-city, inter-regional, and rural transit service. SJRTD provides fixed-route, flexible fixed-route, and dial-a-ride services in Stockton. Each service is described in more detail below. (San Joaquin Regional Transit District 2021)

- Stockton Metropolitan Area Fixed Route Service operates 33 fixed routes within the Stockton metropolitan area.

- Intercity Fixed Route Service is provided by a route between Stockton and the Lodi Station in downtown Lodi connecting with Lodi Grapeline, Calaveras Transit, Delta Breeze, Sacramento South County Transit (SCT)/LINK buses.

- Interregional Commuter Service is a subscription commuter bus service. A total of eight routes connect San Joaquin County to Sacramento, the San Francisco Bay Area, and the Bay Area Rapid Transit (BART) system.

- SJRTD operates two Dial-a-Ride services. General Public Dial-A-Ride is a curb-to-curb service in areas not currently being served by RTD or other local transportation providers. Passengers are required to use other public transportation options currently available in their area. Stockton Metro Area Dial-A-Ride (SMA-ADA) is a curb-to-curb service operating within the Stockton Metropolitan Area for passengers with an Americans with Disabilities Act (ADA) Certification.

- Hopper Service is a deviated fixed-route service connecting Stockton, Tracy, Lodi, Manteca, Ripon, and Lathrop. The Metro Hopper provides nine routes. The County Hopper provides six routes.

SJRTD service is provided in the area west of SR 99. In vicinity of the Mariposa Road and Arch Road interchanges, service is provided by:

- Fixed routes 385 and 390,
- Hopper routes 91 and 95, and
- Express route 44.

PARK AND RIDE FACILITIES

Park and Ride lots are free parking facilities for commuters to use as a convenient meeting place for carpools, transit, and vanpools. Park and Ride lots in the Stockton area are listed below.

- the Calvary First Church on Kelley Drive north of Hammer Lane;
- the Hammer Crossing Shopping Center at Hammer Lane and Sampson Road;
- the Lifesong Church, 3034 Michigan Avenue; and
- Mariposa Road east of SR 99..

BICYCLE AND PEDESTRIAN SYSTEMS

The generally level terrain and mild weather make bicycling and walking viable forms of transportation in Stockton. The City of Stockton has an extensive network of bicycle facilities, including off-street trails and paths, as well as on-street bicycle lanes and routes. Many of these facilities also support pedestrian travel. According to Caltrans guidelines, bicycle facilities are generally divided into four categories:

- **Class I Bikeway (Bike Path).** A completely separate facility designated for the exclusive use of bicycles and pedestrians with vehicle and pedestrian cross-flow minimized.

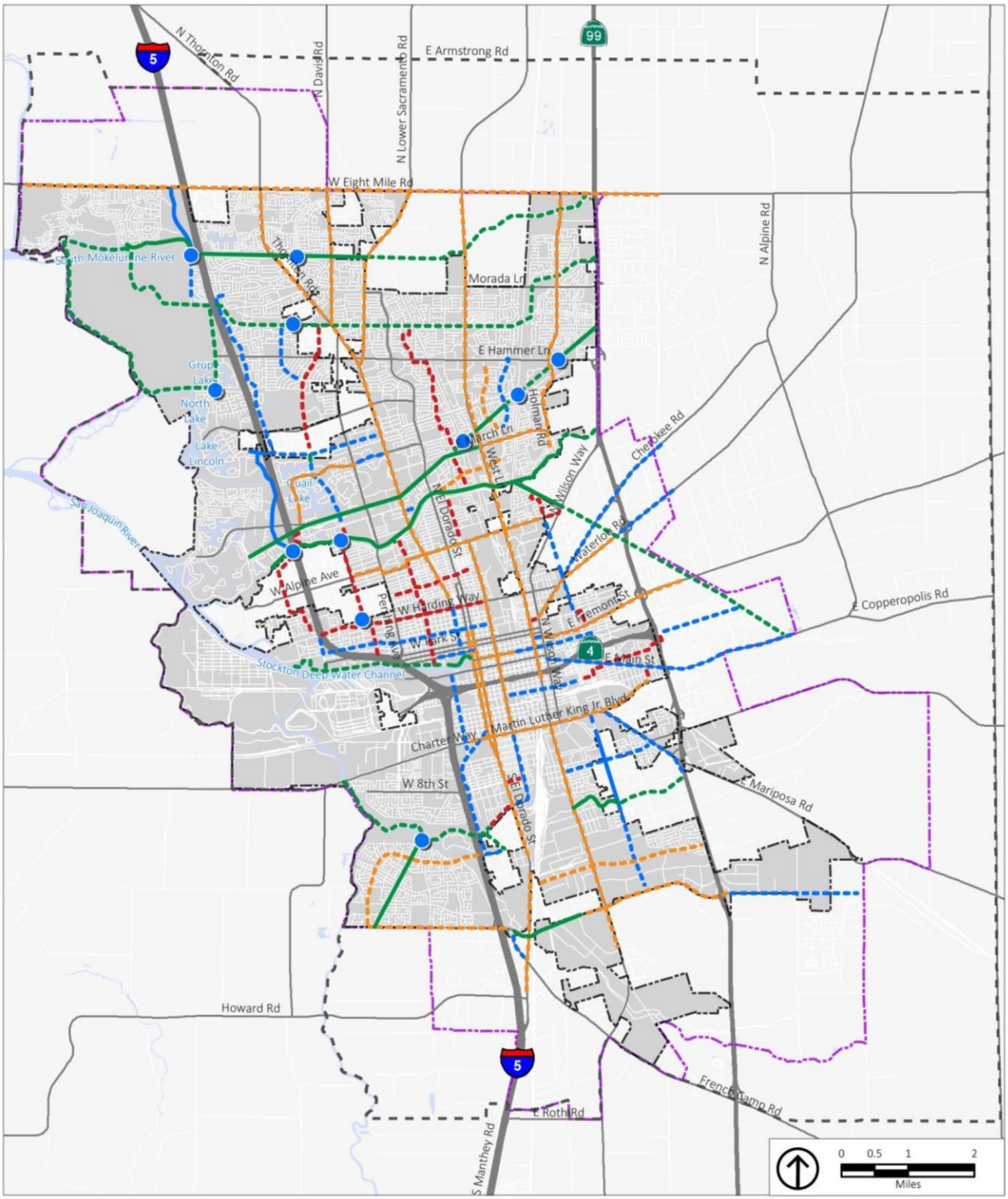
- **Class II Bikeway (Bike Lane).** A striped lane designated for the use of bicycles on a street or highway. Vehicle parking and vehicle/pedestrian cross-flow are permitted at designated locations.

- **Class III Bikeway (Bike Route).** A route designated by signs or pavement markings for bicyclists within the vehicular travel lane (i.e., shared use) of a roadway.

- **Class IV Bikeway (Separated Bikeway).** A bikeway for the exclusive use of bicycles and includes a separation required between the separated bikeway and the through vehicular traffic. The separation may include, but is not limited to, grade separation, flexible posts, inflexible posts, inflexible barriers, or on-street parking.

In the immediate vicinity of the project site, neither bicycle facilities nor sidewalks are present along either side of Mariposa Road between Munford Avenue and Austin Road.

The City of Stockton General Plan presents a map showing existing and planned bicycle facilities in the Stockton area, shown on **Figure 5**. **Figure 5** shows a planned Class II bike lane on Arch Road between SR 99 and Austin Road, and a planned Class II bike lane on Mariposa Road between Dr. Martin Luther King, Jr. Boulevard and SR 99.



Source: City of Stockton; Fehr & Peers, 2016; PlaceWorks, 2017.

Existing Bicycle Network
- Class I (Bike Path)
- Class II (Bike Lane)

Planned Bicycle Network
- Class I (Bike Path)
- Class II (Bike Lane)
- Class III (Bike Route)
- Class IV (Separated Bikeway)

- New Bridge
- General Plan Planning Area
- City Limit
- Sphere of Influence

ENVISION STOCKTON 2040 GENERAL PLAN

EXISTING AND PLANNED BICYCLE NETWORK

KD Anderson & Associates, Inc.
Transportation Engineers

0780-13 RA 7/9/2021

figure 5

STUDY AREA INTERSECTIONS

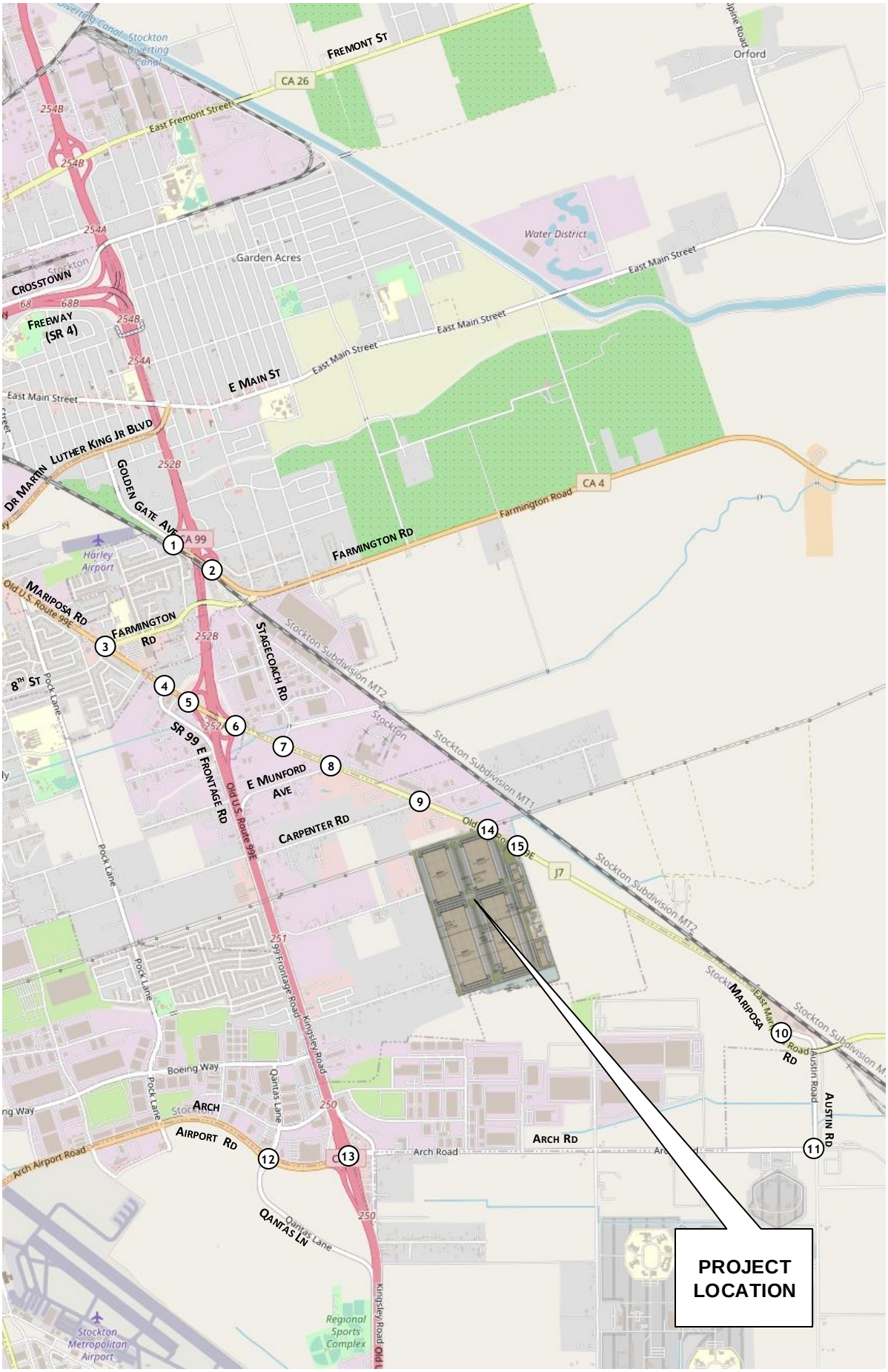
The traffic-related effects of the proposed project were assessed for this traffic impact study by analyzing traffic operations at intersections that would serve project-related travel. The following intersections were selected for analysis in consultation with City of Stockton staff (Moore pers. comm.).

1. Golden Gate Avenue & SR 99 Southbound Ramps
2. Golden Gate Avenue & SR 99 Northbound Ramps
3. Mariposa Road & 8th Street/Farmington Road
4. Mariposa Road & SR 99 West Frontage Road
5. Mariposa Road & SR 99 Southbound Ramps
6. Mariposa Road & SR 99 Northbound Ramps
7. Mariposa Road & Stagecoach Road
8. Mariposa Road & Munford Avenue
9. Mariposa Road & Carpenter Road
10. Mariposa Road & Austin Road
11. Arch Road & Austin Road
12. Arch-Airport Road & Qantas Lane
13. Arch Road & SR 99

The following two intersections would only be present with construction of the Mariposa Industrial Park project. As a result, these intersections were only analyzed under development conditions that include the proposed project:

14. Mariposa Road & Northwest Project Driveway
15. Mariposa Road & Southeast Project Driveway

The locations of study intersections are presented in **Figure 6**. The numbers listed above correspond to the intersection numbers on this figure.



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0780-18 RA 7/9/2021

STUDY INTERSECTIONS

figure 6

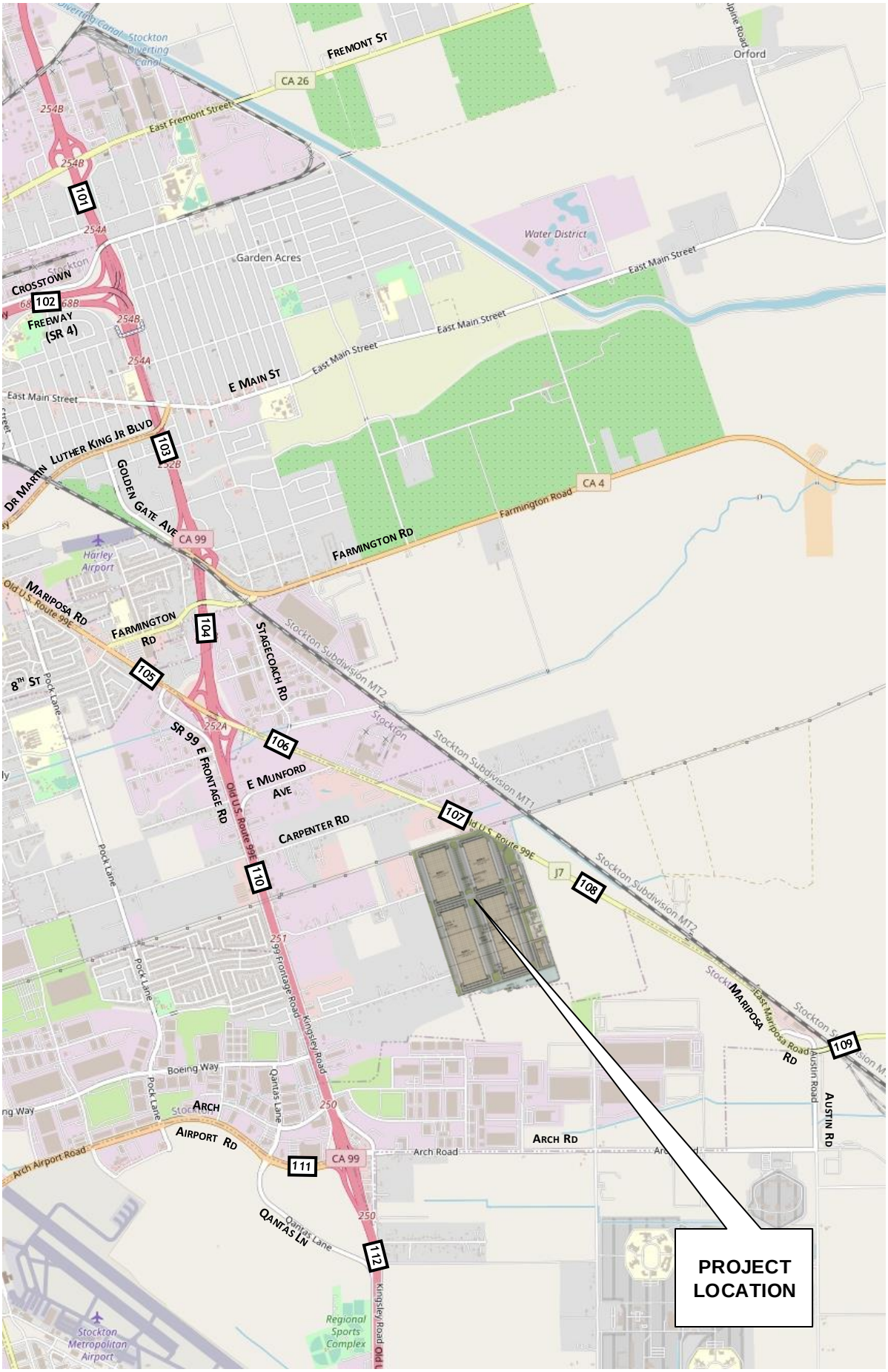
STUDY AREA ROADWAY SEGMENTS

In addition to analyzing intersections, the traffic-related effects of the proposed project on roadway segments were assessed for this traffic impact study. Major roadways adjacent to the project site, and roadways that would serve as major access routes, were analyzed. The following roadway segments were selected for analysis in consultation with City of Stockton staff (Moore pers. comm.).

101. SR 99 North of Crosstown Freeway (SR 4)
102. Crosstown Freeway West of SR 99
103. SR 99 Between Crosstown Freeway and Golden Gate Avenue
104. SR 99 Between Golden Gate Avenue and Mariposa Road
105. Mariposa Road Between SR 99 and 8th Street/Farmington Road
106. Mariposa Road, Between Carpenter Road and SR 99
107. Mariposa Road, Between the Project Site and Carpenter Road
108. Mariposa Road, Southeast of the Project Site
109. Mariposa Road, East of Austin Road
110. SR 99 Between Mariposa Road and Arch-Airport Road
111. Arch-Airport Road, Between Qantas Lane and SR 99
112. SR 99 South of Arch-Airport Road

The locations of study roadway segment are presented in **Figure 7**. The numbers listed above correspond to the roadway segment numbers on this figure. The numbers used for roadway segments are sequential, beginning with 101 to distinguish study roadway segments from study intersections listed previously.

The study roadway segments are specific to certain locations on the roadway network. However, in some cases, a roadway segment represents larger portions of roadway segments. For example, analysis results for roadway segment Mariposa Road, east of Austin Road, applies to Mariposa Road from Austin Road to Jack Tone Road. The descriptions of locations listed above, and used in this traffic impact study, are as specific as possible to minimize ambiguity.



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STUDY ROADWAY SEGMENTS

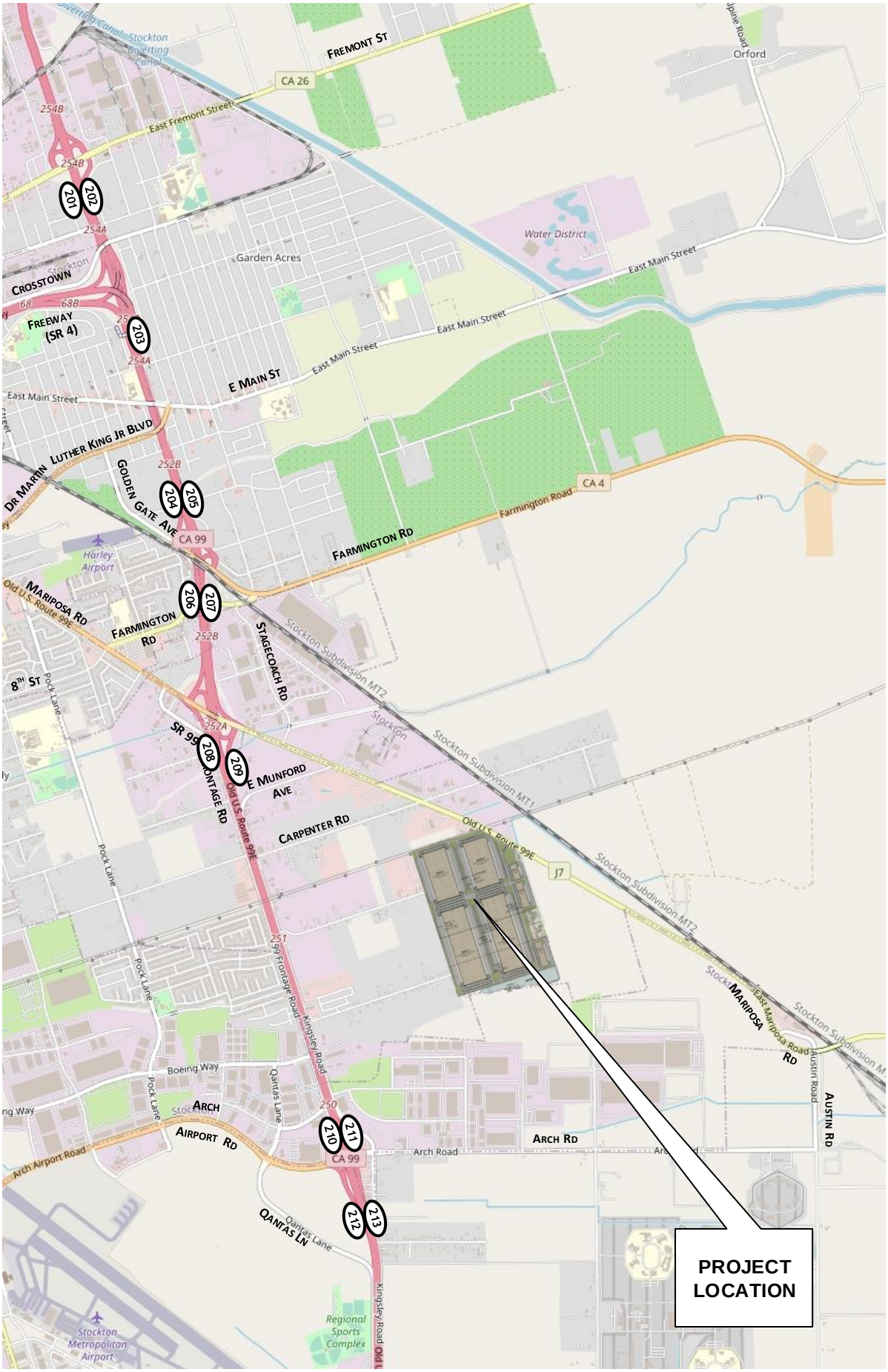
figure 7

STUDY AREA FREEWAY RAMP JUNCTIONS

In addition to analyzing intersections and roadway segments, the traffic-related effects of the proposed project on freeway ramp junctions were assessed for this traffic impact study. Ramp junctions that would serve as major access routes, and would be affected by project-related traffic, were analyzed. The following ramp junctions were selected for analysis in consultation with City of Stockton staff (Moore pers comm.):

201. SR 99 Southbound Weave Area Between Fremont Street and Crosstown Freeway
202. SR 99 Northbound Weave Area Between Crosstown Freeway and Fremont Street
203. SR 99 Northbound at Crosstown Freeway Off-Ramp Diverge
204. SR 99 at Golden Gate Avenue Southbound Off-Ramp Diverge
205. SR 99 at Golden Gate Avenue Northbound On-Ramp Merge
206. SR 99 Southbound Weave Area Between Golden Gate Avenue and Mariposa Road
207. SR 99 Northbound Weave Area Between Mariposa Road and Golden Gate Avenue
208. SR 99 at Mariposa Road Southbound On-Ramp (Slip) Merge
209. SR 99 at Mariposa Road Northbound Off-Ramp Diverge
210. SR 99 at Arch-Airport Road Southbound Off-Ramp Diverge
211. SR 99 at Arch-Airport Road Northbound On-Ramp Merge
212. SR 99 at Arch-Airport Road Southbound On-Ramp Merge
213. SR 99 at Arch-Airport Road Northbound Off-Ramp Diverge

The locations of freeway ramp junctions are presented in **Figure 8.** The numbers listed above correspond to the ramp junction numbers on this figure. The numbers used for ramp junctions are sequential, beginning with 201 to distinguish study ramp junctions from study intersections and study roadway segments listed previously.



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0780-18 RA 7/9/2021

STUDY FREEWAY MERGE, DIVERGE, AND WEAVE AREAS

figure 8

METHODOLOGY

The following is a description of the analysis methods used in this traffic impact study.

Intersection Level of Service Analysis Procedures

Level of service (LOS) analysis provides a basis for describing existing traffic conditions and for evaluating the significance of project-related inconsistency with General Plan transportation policies. Level of service measures the quality of traffic flow and is represented by letter designations from A to F, with a grade of A referring to the best conditions, and F representing the worst conditions. The characteristics associated with the various LOS for intersections are presented in **Table 1**.

Level of service at both signalized and unsignalized intersections was analyzed using methods presented in the *Highway Capacity Manual*. Methods described in the *Highway Capacity Manual* were used to provide a basis for describing traffic conditions and for evaluating the significance of inconsistency with General Plan policies. As specified by City of Stockton staff (McDowell pers. comm.), methods from the *Highway Capacity Manual 2000* (Transportation Research Board, 2000) were used to analyze local roadway intersections. As specified in the *City of Stockton Transportation Impact Analysis Guidelines* (City of Stockton, 2003), the Traffix software analysis package was used to analyze local roadway intersections.

Caltrans District 10 recommends use of the *Highway Capacity Manual 6th Edition* (Transportation Research Board 2016) and the Synchro software package (Trafficware 2021). Therefore, as specified by City of Stockton staff, freeway ramp intersections were analyzed using *Highway Capacity Manual 6th Edition* methods and the Synchro software package.

The lengths of vehicle queues were also analyzed for this traffic impact study. Methods presented in the *Highway Capacity Manual 2000* and *Highway Capacity Manual 6th Edition* were used to analyze queuing. 95th percentile queue length values are presented in this traffic impact study.

Worksheets and output reports for the calculation of LOS and vehicles queues for all scenarios analyzed for this traffic impact study are presented in the technical appendix.

Table 1. Level of Service Definitions - Highway Capacity Manual 2010

Level of Service	Signalized Intersections	Unsignalized Intersections
A	Vehicle progression is exceptionally favorable or the cycle length is very short. Delay ≤ 10.0 seconds/vehicle	Little or no delay. Delay ≤ 10 seconds/vehicle
B	Vehicle progression is highly favorable or the cycle length is short. Delay > 10 seconds/vehicle and ≤ 20 seconds/vehicle	Short traffic delays. Delay > 10 seconds/vehicle and ≤ 15 seconds/vehicle
C	Vehicle progression is favorable or the cycle length is moderate. Individual cycle failures may begin to appear at this level. Delay > 20 seconds/vehicle and ≤ 35 seconds/vehicle	Average traffic delays. Delay > 15 seconds/vehicle and ≤ 25 seconds/vehicle
D	Vehicle progression is ineffective or the cycle length is long. Many vehicles stop and the individual cycle failures are noticeable. Delay > 35 seconds/vehicle and ≤ 55 seconds/vehicle	Long traffic delays. Delay > 25 seconds/vehicle and ≤ 35 seconds/vehicle
E	Vehicle progression is unfavorable and the cycle length is long. Individual cycle failures are frequent. Delay > 55 seconds/vehicle and ≤ 80 seconds/vehicle	Very long traffic delays, failure, extreme congestion. Delay > 35 seconds/vehicle and ≤ 50 seconds/vehicle
F	Vehicle progression is very poor and the cycle length is long. Most cycles fail to clear the vehicle queue. Delay > 80 seconds/vehicle	Intersection blocked by external causes. Delay > 50 seconds/vehicle

Source: Transportation Research Board 2010.

Signal Warrants Procedures

Traffic signal warrants are a series of standards which provide guidelines for determining if a traffic signal is appropriate. Signal warrant analyses are typically conducted at intersections of uncontrolled major streets and stop sign-controlled minor streets. If one or more signal warrants are met, signalization of the intersection may be appropriate. However, a signal should not be installed if none of the warrants are met, because installation of signals would increase delays on the previously-uncontrolled major street, resulting in an undesirable increase in overall vehicle delay at the intersection. Signalization may also increase the occurrence of certain types of accidents. Therefore, if signals are installed where signal warrants are not met, the detriment of increased accidents and overall delay may be greater than the benefit in traffic operating conditions on the single worst movement at the intersection. Signal warrants, then, provide an industry-standard basis for identifying when the adverse effect on the worst movement is substantial enough to warrant signalization.

For the analysis conducted for this traffic impact study, available data at unsignalized intersections are limited to a.m. and p.m. peak hour volumes. Thus, unsignalized intersections were evaluated using the Peak Hour Warrant (Warrant Number 3) from the California Department of Transportation document *California Manual on Uniform Traffic Control Devices* (California Department of Transportation 2014). This warrant was applied where the minor street experiences long delays in entering or crossing the major street for at least one hour of the day. The Peak Hour Warrant itself includes several components. Some of the components involve comparison of traffic volumes and vehicle delay to a series of standards. Another component involves comparison of traffic volumes to a nomograph.

Even if the peak hour warrant is met, a more detailed signal warrant study is recommended before a signal is installed. The more detailed study should consider volumes during the eight highest hours of the day, volumes during the four highest hours of the day, pedestrian traffic, and accident histories.

Signal warrant analysis worksheets for all stop sign-controlled intersections are presented in the technical appendix.

Roadway Segment Level of Service Analysis Procedures

Roadway segment LOS was analyzed for this traffic impact study based on methods used in the *Envision Stockton 2040 General Plan Update and Utility Master Plan Supplements Draft EIR* analysis (City of Stockton 2018b). These methods set maximum daily traffic volume thresholds for each LOS designation. The thresholds are shown in **Table 2**.

As shown in **Table 2**, the roadway segment LOS analysis method sets separate thresholds for:

- different types of facilities (i.e., freeways, arterials, and collectors);
- different number of lanes; and
- different area types (i.e., new versus existing).

Table 2. City of Stockton General Plan Roadway Segment Level of Service Thresholds

Facility Class	Number of Lanes	Area Type	Level of Service				
			A	B	C	D	E
Freeway	4	All Areas	27,600	45,200	63,600	77,400	86,400
	6	All Areas	41,400	67,800	95,400	116,100	129,600
	8	All Areas	55,200	90,400	127,200	154,800	172,800
	10	All Areas	69,000	113,000	159,000	193,500	216,000
Arterial	2	Existing	8,400	9,300	11,800	14,700	17,300
	2	New	10,000	11,100	14,000	17,500	20,600
	4	Existing	18,600	20,600	26,000	32,500	38,200
	4	New	23,300	25,800	32,600	40,700	47,900
	6	Existing	28,800	32,000	40,300	50,400	59,300
	6	New	33,300	37,000	46,600	58,300	68,600
	8	Existing	38,100	42,300	53,300	66,600	78,400
	8	New	41,100	45,700	57,600	72,000	84,700
Collector	2	Existing	6,400	7,100	9,000	11,300	13,200
	2	New	6,400	7,100	9,000	11,300	13,200
	4	Existing	17,600	19,600	24,700	30,900	36,300
	4	New	21,100	23,500	29,600	37,000	43,500

Source: Stockton General Plan Draft Environmental Impact Report (City of Stockton 2018b).
Note: The Stockton General Plan does not provide thresholds for local roads.

As described in City of Stockton 2018b:

> "Thresholds for arterials and collectors were based on Highway Capacity Manual calculations and were developed in conjunction with City staff at the time the current General Plan analysis was prepared. The arterial thresholds distinguish between roads in the existing urbanized area and those in new development areas; because arterials in new development areas can be designed to higher standards, with medians, exclusive turn lanes, and controlled access from adjacent uses, the capacities are higher than those in previously-developed areas. Thresholds for freeways were based on Highway Capacity Manual procedures relating levels of service to vehicle density ranges."

As specified in City of Stockton 2018b, the "Existing" area is generally located between I-5 and SR 99, south of Eight Mile Road. Eight Mile Road itself is considered a "New" arterial due to the lack of existing development in the area.

Freeway Ramp Junction Level of Service Analysis Procedures

Freeway ramp junctions are areas where freeway on-ramps merge into freeways, and where freeway off-ramps diverge from freeways. Weave areas are where an on-ramp and downstream off-ramp are connected by an auxiliary lane. Freeway ramp junctions which are considered to be potentially affected by project-related traffic were analyzed for this traffic impact study.

Freeway ramp junction areas were analyzed for this traffic impact study using methods described in Chapters 12 and 13 of the *Highway Capacity Manual 2010* (Transportation Research Board 2010). The *Synchro* software package does not analyze freeway ramp junction LOS. Therefore, the McTrans *HCS+ Highway Capacity Software* package was used to perform the ramp junction LOS calculations for this traffic impact study.

The *Highway Capacity Manual 2010* methods were used to analyze three types of freeway facilities: on-ramp junctions (merge), off-ramp junctions (diverge), and weave areas. The analysis of all three types of facilities involves calculating the density of vehicles on a freeway facility, expressed as passenger cars per mile per lane (pcpmpl). The LOS designation is based on the vehicle density. **Table 3** presents the relationship of vehicle density to LOS for ramp junctions and weave areas.

Freeway ramp operating conditions depend on traffic volumes and the ramp characteristics. These characteristics include the length and type of acceleration and deceleration lanes, the free-flow speed of ramps, the number of lanes, grade, and the types of facilities connected to the ramps.

The *Highway Capacity Manual 2010* reports LOS A through E for ramps and weaving sections in terms of density. When the volume using the facility exceeds capacity, the V/C ratio is greater than 1, and the *Highway Capacity Manual 2010* identifies the facility as overcapacity. While a density is not stated when the facility is over capacity, the freeway and ramp volumes for the facility are documented. For this traffic study, the freeway and ramp volumes are identified for all facilities where capacity has been exceeded.

Some of the freeway on-ramp facilities analyzed for this traffic impact study are equipped with ramp metering. The *Highway Capacity Manual 2010* methods used to analyze freeway on-ramp facilities does not take ramp metering into account (Transportation Research Board 2010). The objective and the effect of ramp metering is to smooth out traffic flows, reducing the magnitude of surges in traffic flow. As a result, the effect of ramp meters is to improve traffic operations, therefore improving ramp junction LOS. Because the ramp junction analysis presented in this traffic impact study does not take ramp metering into account, the LOS are considered to conservatively describe worse cast operating conditions.

Table 3. Level of Service Criteria for Freeway Merge / Diverge and Weaving Areas

Level of Service	Freeway Ramp Merge and Diverge: Vehicle Density	Freeway Ramp Merge and Diverge: Operating Characteristics	Freeway Weave Area Vehicle Density
A	Less than or equal to 10.	LOS A represents unrestricted operations. Density is low enough to permit smooth merging and diverging, with very little turbulence in the traffic stream.	Less than or equal to 10.
B	Greater than 10. Less than or equal to 20.	At LOS B, merging and diverging maneuvers become noticeable to through drivers, and minimal turbulence occurs.	Greater than 10. Less than or equal to 20.
C	Greater than 20. Less than or equal to 28.	At LOS C, speed within the influence area begins to decline as turbulence levels become much more noticeable. Both ramp and freeway vehicles begin to adjust their speeds to accomplish smooth	Greater than 20. Less than or equal to 28.
D	Greater than 28. Less than or equal to 35.	At LOS D, turbulence levels in the influence area become intrusive, and virtually all vehicles slow to accommodate merging and diverging. Some ramp queues may form at heavily used on-ramps, but freeway operation remains stable.	Greater than 28. Less than or equal to 35.
E	Greater than 35.	LOS E represents conditions approaching or at capacity. Small changes in demand or disruptions within the traffic stream can cause both ramp and freeway queues to form.	Greater than 35.
F	†V/C >1	LOS F defines operating conditions within queues that form on both the ramp and the freeway mainline when capacity is exceeded by demand.	†V/C >1

Note: Vehicle density is expressed as passenger car equivalents per mile per lane.
Source: Transportation Research Board 2010.
† = Volume exceeds capacity. Therefore, the LOS is F. V/C ratio shown in lieu of density.

Travel Forecasting

As part of the General Plan update process, the City of Stockton developed a series of travel demand forecasting simulation models. In consultation with City of Stockton staff (Moore, pers. comm.), travel forecasts for this traffic impact study are based on the City of Stockton General Plan travel demand forecasting simulation model (City of Stockton 2018b).

Travel models of the following two conditions were used to develop forecasts of future year traffic volumes for this traffic impact study:

- Existing Plus Approved Projects (EPAP), and
- 2040 Conditions with the General Plan.

The City's travel model produces forecasts of daily traffic volumes. The forecasts of daily volumes generated by the City's travel model are adequate for use in the analysis of roadway segment LOS, and are used for daily volume forecasts in this traffic impact study. However, the daily volumes generated by the traffic model are not, by themselves, adequate for use in the peak hour LOS analysis of study intersections.

Daily traffic volumes from the travel models were used to generate growth factors. These growth factors were applied to existing peak hour intersection turning movement traffic volumes. The development of future year intersection turning movement traffic volumes requires that the turning movements at each intersection "balance". To achieve the balance, inbound traffic volumes must equal the outbound traffic volumes, and the volumes must be distributed among the various left-turn, through, and right-turn movements at each intersection. The "balancing" of future year intersection turning movement traffic volumes was conducted using methods described in the Transportation Research Board's (TRB's) National Cooperative Highway Research Program (NCHRP) Report 255, *Highway Traffic Data for Urbanized Area Project Planning and Design* (Transportation Research Board 1982). The NCHRP 255 method applies the desired peak hour directional volumes to the intersection turning movement volumes, using an iterative process to balance and adjust the resulting forecasts to match the desired peak hour directional volumes.

LEVEL OF SERVICE AND SIGNIFICANCE THRESHOLDS

Significance thresholds are used in California Environmental Quality Act (CEQA) environmental documents to identify when the impacts of a project should be considered significant. Significance thresholds are the criteria used to determine the significance of impacts.

The *City of Stockton Traffic Impact Analysis Guidelines* (City of Stockton 2003) presents the methods, assumptions and significance thresholds specified by the City of Stockton for use in preparing traffic impact studies. In general, the methods, assumptions and significance threshold presented in the guidelines are applied in this traffic impact study. It is important to note the significance thresholds specified in the guidelines are based on policies presented in the City General Plan. More specifically, the General Plan policies define ranges of LOS considered to

be acceptable and unacceptable. The guidelines then use the General Plan policy ranges of LOS to identify whether a project impact is less than significant or significant.

Level of Service and Vehicle Miles Traveled

In the *City of Stockton Traffic Impact Analysis Guidelines*, the impacts of a project on LOS are an important factor in determining whether a project has a significant impact. However, recent changes to CEQA have changed how lead agencies use LOS in determining whether a project has a significant impact on transportation. As noted in the California Governor's Office of Planning and Research (OPR) document *Technical Advisory on Evaluating Transportation Impacts in CEQA* (California Governor's Office of Planning and Research 2018),

> "Senate Bill 743 (Steinberg, 2013), which was codified in Public Resources Code section 21099, required changes to the guidelines implementing CEQA (CEQA Guidelines) (Cal. Code Regs., Title 14, Div. 6, Ch. 3, § 15000 et seq.) regarding the analysis of transportation impacts. . . OPR has proposed, and the California Natural Resources Agency (Agency) has certified and adopted, changes to the CEQA Guidelines that identify vehicle miles traveled (VMT) as the most appropriate metric to evaluate a project's transportation impacts. With the California Natural Resources Agency's certification and adoption of the changes to the CEQA Guidelines, automobile delay, as measured by "level of service" and other similar metrics, generally no longer constitutes a significant environmental effect under CEQA. (Pub. Resources Code, § 21099, subd. (b)(3).)"

Notably, the *City of Stockton Traffic Impact Analysis Guidelines* was prepared before the recent changes to CEQA due to Senate Bill 743 (Steinberg 2013). As a result, the City guidelines specify use of LOS in determining whether a project has a significant impact. Consistent with the approach described in the OPR *Technical Advisory on Evaluating Transportation Impacts in CEQA*, LOS will not be used in this traffic impact study as a basis for identifying significant impacts. Rather, the methods, assumptions and significance thresholds presented in the City guidelines are used to determine whether the project is consistent or inconsistent with General Plan policies on LOS, and whether the magnitude of inconsistency should be considered significant or less than significant.

General Plan Policy Consistency Criteria

As noted immediately above, in this traffic impact study the significance of the proposed project's inconsistency with General Plan policies is based on a determination of whether resulting LOS is considered acceptable. A project's inconsistency with General Plan policies is considered significant if implementation of the project would result in LOS changing from levels considered acceptable to levels considered unacceptable, or if the project would substantially worsen already unacceptable LOS.

The *City of Stockton Transportation Impact Analysis Guidelines* notes that:

> "The City of Stockton's General Plan has a LOS 'D' standard for its roadway system. Intersections and roadway segments operating at LOS 'A', 'B', 'C', or 'D' conditions are considered acceptable, while those operating at LOS 'E' or 'F' conditions are considered unacceptable.
>
> "For a City intersection, a transportation impact for a project is considered significant if the addition of project traffic would cause an intersection that would function at LOS 'D' or better without the Project to function at LOS 'E' or 'F'.
>
> "For City intersections with a LOS 'E' or 'F' conditions without the project, a transportation impact for a project is considered significant if the addition of project traffic causes an increase of greater than 5 seconds in the average delay for the intersection."

Portions of the City's guidelines do not specifically address criteria used to quantify changes in operating conditions on roadway segments or freeway ramp junctions. For this traffic impact study, the City's significance thresholds described above are also applied to roadway segments and freeway ramp junctions. As shown in **Table 1**, **Table 2** and **Table 3**, LOS at intersections is measured in seconds of delay, LOS on roadway segments is measured in traffic volume, and LOS at ramp junctions is measured in vehicle density. Therefore, for roadway segments and ramp junctions already at LOS E or F, an increase of greater than five seconds of delay cannot be identified. Because roadway segment LOS is measured in traffic volumes, rather than seconds of delay, an increase in traffic volumes is used in this traffic impact study, in lieu of the threshold of five seconds of delay. At ramp junctions when the demand exceeds capacity, an increase in density is not identified; however, the densities of each area are based upon the volume. Therefore, for this traffic impact study, if a roadway segment or ramp junction operates at LOS E or F without the project, the inconsistency with General Plan policies is considered significant if the addition of project traffic causes an increase of greater than five percent in traffic volumes.

The *Envision Stockton 2040 General Plan* (City of Stockton 2018a) notes:

> "The City of Stockton strives to maintain LOS D or better for peak hour intersection and daily roadway segment operations. However, in the Downtown and other areas, exceptions to this standard are permissible to support other goals, such as encouraging safe travel by other modes of transportation than the car. The City can use VMT and LOS to support non-auto transportation modes, with the ultimate goal of maintaining and enhancing a complete roadway network that serves all travel modes in a balanced and equitable way."

This section of the City General Plan lists more than 14 facilities as exceptions to the LOS D policy standard, and lists the applicable standard. Among the facilities listed as exceptions is "Eighth Street, Airport Way to Mariposa Road – LOS E". Consistent with the City General Plan, a LOS E standard is applied in this traffic impact study to the intersection of Mariposa Road & 8th Street/Farmington Road.

SR 99 is a facility under the jurisdiction of Caltrans. While the City General Plan identifies LOS E and LOS F as standards for portions of the SR 99 corridor, Caltrans has set a LOS D standard (Dumas, pers. comm.). At the direction of City staff, because SR 99 is under the jurisdiction of Caltrans, LOS D is used as the LOS standard for the SR 99 corridor in this traffic impact study; LOS E and F are considered unacceptable. In this traffic impact study, the Caltrans LOS D standard is applied to mainline freeway LOS, ramp junction LOS, and to LOS at freeway interchange intersections.

In this traffic impact study, a project's inconsistency with General Plan policies will be considered significant if:

- the project would result in traffic operating conditions changing from an acceptable LOS to an unacceptable LOS, or

- when LOS without the project is already unacceptable, the project would result in a substantial degradation of traffic operating conditions (e.g., an increase of more than five seconds of delay at an intersection, an increase of more than five percent in traffic volume on a roadway segment, or an increase of more than five percent in the freeway and ramp volumes for ramps).

Maximum Feasible Roadway Improvements

This traffic impact study identifies traffic operating conditions that would result from background development of land use not related to the proposed project, and would result from development of the proposed project. In some cases, this development would result in unacceptable LOS. If unacceptable LOS is forecasted, feasible roadway improvements needed to achieve acceptable LOS are identified.

For this traffic impact study, maximum feasible sizes of roadway facilities have been established. For intersections, the maximum feasible size is considered to be seven approach lanes on each leg of an intersection. For example, two left-turn lanes, four through lanes, and a right-turn lane (a total of seven lanes) is considered to be the maximum feasible size on an intersection approach. Existing land use development, physical or right-of-way constraints, and the relative benefits of additional roadway improvements in some cases result in a smaller approach being considered the maximum feasible size.

For SR 99 in the study area for this traffic impact study, the Caltrans *Transportation Concept Report State Route 99* (California Department of Transportation 2017) identifies a "conceptual facility" width of eight lanes (four in each direction) by the year 2040. Therefore, an eight-lane width is considered to be the maximum feasible size for SR 99.

It is technically possible to construct roadway facilities larger than the maximum feasible sizes applied in this traffic impact study. However, for the following reasons, this traffic impact study considers these sizes to be not feasible.

- **Pedestrian Safety** – The amount of time required by pedestrians to walk across an intersection leg with more than seven approach lanes is considered excessive.

The possibility of signal lights changing before pedestrians are able to exit the intersection is considered unacceptably high.

- **Vehicle Safety** – When a vehicle enters an intersection on the yellow light, the amount of time required for this subject vehicle to depart overly-large intersections is considered excessive. The possibility of other vehicles on conflicting movements entering the intersection before the subject vehicle has departed is considered unacceptably high.

- **Intersection Efficiency** – The timing of signal lights may be modified to provide protection for pedestrians and vehicles at overly-large intersections. However, the amount of time needed for pedestrians and vehicles to exit an overly-large intersection becomes excessive. This results in the intersection operating with an unacceptable degree of inefficiency.

- **Engineering Constraints** – Overhead structures and equipment are required to traverse both intersection approaches and freeway lanes. Overhead structures involve primarily overcrossing roadways. Equipment includes signal light support structures, power lines, and signs. With larger facilities, the size and resulting cost of these structures and equipment becomes unacceptable.

VEHICLE MILES TRAVELED SIGNIFICANCE THRESHOLD

The City of Stockton General Plan (City of Stockton 2018a) Policy TR-4.3 addresses the topic of vehicle miles traveled (VMT) as an impact in CEQA documents. The policy states,

> "Use the threshold recommended by the California Office of Planning and Research for determining whether VMT impacts associated with land uses are considered significant under State environmental analysis requirements."

The OPR *Technical Advisory on Evaluating Transportation Impacts in CEQA* (State of California 2018) provides recommended thresholds for determining the significance of VMT impacts associated with land use development projects. Specific thresholds are provided for residential, office, and retail commercial types of development. A specific threshold is not provided for industrial land use, like the Mariposa Industrial Park project and is, therefore, considered not applicable for this traffic impact study.

The City of Stockton General Plan Policy Action TR-4.3A states,

> "Establish a threshold of 15 percent below baseline VMT per capita to determine a significant transportation impact under the California Environmental Quality Act."

The 15 percent threshold in General Plan Action TR-4.3A is similar to thresholds for residential and office land use types recommended by OPR in the *Technical Advisory on Evaluating Transportation Impacts in CEQA*, and is used in this traffic impact study to determine the significance of VMT impacts associated with the Mariposa Industrial Park project.

Consistent with General Plan Action TR4.3A, if a project would result in a 15 percent or more reduction of vehicle travel, a project is considered to have a less-than-significant impact. A project that would not result in a reduction of 15 percent or more is considered to have a significant impact. The percent change in vehicle travel is determined by comparing project-related travel to the amount of travel that would occur without approval of the proposed project. In this traffic impact study, vehicle travel associated with the Mariposa Industrial Park project will be compared to vehicle travel associated with the land uses currently designated in the City of Stockton General Plan.

At the time the analysis presented in this traffic impact study commenced, the City of Stockton had not adopted guidelines for analyzing VMT or determining the significance of a project's impact on VMT. The City was in the process of developing and adopting guidelines, but the process was not completed. The VMT analysis presented in this traffic impact study is not intended to pre-empt the City process of developing and adopting VMT guidelines. Rather, the analysis presented in this traffic impact study is intended to be a good-faith effort at disclosing and identifying the VMT impacts of the Mariposa Industrial Park project based on currently available data and guidance.

EXISTING INTERSECTION TRAFFIC VOLUMES AND LEVELS OF SERVICE

The following is a description of existing traffic operating conditions at the study intersections.

Traffic Volumes

Since the outbreak of the Covid-19 pandemic, traffic volumes have at times been lower than normal. With the pandemic, places of employment, schools, social and recreational gatherings, sports events, restaurants, and many other types of activities have been substantially reduced or prohibited. As a result, the use of new traffic volume count data collected during the pandemic could result in volumes that are unrepresentatively low. To ensure data used in this traffic study are representative, the traffic analysis of the Mariposa Industrial Park project is based on both existing traffic volume data collected before the outbreak of Covid-19, and current new traffic volume count data collected since the outbreak. Data collected before the outbreak of Covid-19 are from previously-prepared traffic analyses and from StreetLight Data (https://www.streetlightdata.com/). Data from new traffic volume count data collected since the outbreak were used to validate data collected before the outbreak of Covid-19. This approach was applied to intersection traffic volumes, described immediately below. This approach was also applied to roadway segment and ramp junction traffic volumes, described later in this traffic impact study.

At the following study intersections, turning movement count data collected for the *Public Review Draft Environmental Impact Report for the Sanchez-Hoggan Annexation* (City of Stockton 2020) were used in this traffic impact study.

4. Mariposa Road & SR 99 West Frontage Road
5. Mariposa Road & SR 99 Southbound Ramps
6. Mariposa Road & SR 99 Northbound Ramps
10. Mariposa Road & Austin Road
11. Arch Road & Austin Road
12. Arch-Airport Road & Qantas Lane
13. Arch Road & SR 99

Traffic count data collected for the intersections listed above are presented in the technical appendix. The peak period intersection turning movement count data were collected on Thursday March 7, 2019. The data were collected during the 7:00 a.m. to 9:00 a.m. period, and the 4:00 p.m. to 6:00 p.m. period. Volumes during the highest one-hour period were used for this traffic impact study. It should be noted that a since the outbreak of the Covid-19 pandemic, a south leg has been constructed at intersection 10, Mariposa Road & Austin Road. However, as noted previously, traffic volumes during the pandemic could be unrepresentatively low. To ensure representative data are presented in this traffic impact study, conditions before the outbreak of the Covid-19 pandemic are used.

At the following study intersections, pre-Covid-19 intersection turning movement count data were collected for weekday periods between 7:00 a.m. and 9:00 a.m., and between 4:00 p.m. and 6:00 p.m. from StreetLight Data. These data represent Tuesday through Thursday volumes collected during six non-holiday months between March 2019 and February 2020. Traffic volume count data collected from StreetLight Data are presented in the technical appendix.

1. Golden Gate Avenue & SR 99 Southbound Ramps
2. Golden Gate Avenue & SR 99 Northbound Ramps
3. Mariposa Road & 8th Street/Farmington Road
7. Mariposa Road & Stagecoach Road
8. Mariposa Road & Munford Avenue
9. Mariposa Road & Carpenter Road

To validate the traffic volumes collected from StreetLight Data, new count data were also collected on Tuesday January 12, 2021 at the intersections listed above during the 7:00 a.m. to 9:00 a.m. morning peak period and the 4:00 p.m. to 6:00 p.m. evening peak. The new count data were used to adjust volumes from StreetLight Data at the following intersection legs:

- the southwest leg of the intersection of Mariposa Road & Stagecoach Road,
- the southwest leg of the intersection of Mariposa Road & Carpenter Road, and
- the northeast leg of the intersection of Mariposa Road & Carpenter Road.

Traffic volumes on the intersection legs listed above are relatively low and the intersection turning movement volumes from StreetLight Data were considered to be unrepresentative. The new count data collected on Tuesday January 12, 2021 were used to adjust the turning movement volumes on the intersection legs listed above.

Using the approach described above results in volumes applied in this traffic study which compensate for decreases caused by the Covid-19 pandemic.

Figure 9 and **Figure 10** present the existing lane configurations and existing a.m. peak hour and p.m. peak hour traffic volumes at the existing study intersections.

Intersection turning movement count data collected for this traffic impact study were disaggregated to light-duty vehicles (e.g., automobiles) and heavy vehicles (e.g., heavy-duty trucks). These data were used to estimate heavy vehicle percentage at each study intersection. The percentages are shown in **Table 4**, and were used in the intersection LOS analysis presented in this traffic impact study.

Intersection Levels of Service

Table 5 presents a summary of existing a.m. peak hour and p.m. peak hour LOS at the 13 existing study intersections. The worksheets presenting the calculation of LOS are included in the technical appendix.

All of the 13 existing study intersections operate at acceptable LOS C or better during both the a.m. peak hour and the p.m. peak hour. No improvements are needed at these intersections to achieve acceptable LOS.

EXISTING ROADWAY SEGMENT TRAFFIC VOLUMES AND LEVELS OF SERVICE

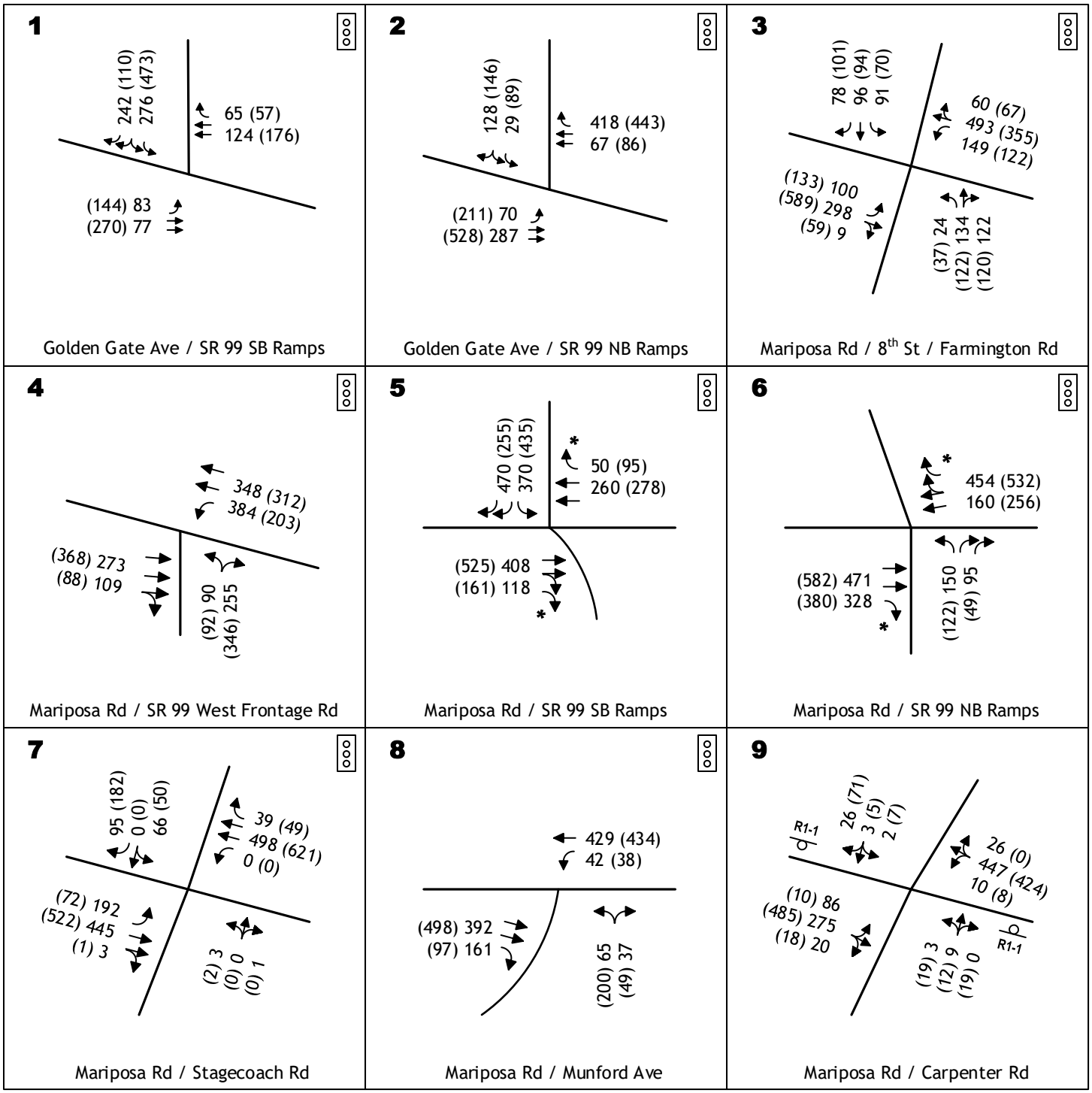
The following is a description of existing traffic operating conditions on study roadway segments.

Roadway Segment Traffic Volumes

As described in more detail previously in this traffic impact study, to ensure data used in this study are representative, the traffic analysis of the Mariposa Industrial Park project is based on both existing traffic volume data collected before the outbreak of Covid-19, and current new traffic volume count data collected since the outbreak.

Roadway segment traffic volume count data were collected for 24-hour periods for the *Public Review Draft Environmental Impact Report for the Sanchez-Hoggan Annexation* (City of Stockton 2020). For the following roadway segments, the data were collected on Wednesday March 13, 2019; and Thursday March 21, 2019. Traffic count data collected for the following roadway segments were used in this traffic impact study, and are presented in the technical appendix:

106. Mariposa Road, Between Carpenter Road and SR 99
107. Mariposa Road, Between the Project Site and Carpenter Road
108. Mariposa Road, Southeast of the Project Site
109. Mariposa Road, East of Austin Road
111. Arch-Airport Road, Between Qantas Lane and SR 99



Legend

XX	AM Peak Hour Volume
(XX)	PM Peak Hour Volume
R1-1	Stop Sign
	Signalized Intersection
*	"Free" Right Turn
– – – –	Future Roadway

NORTH

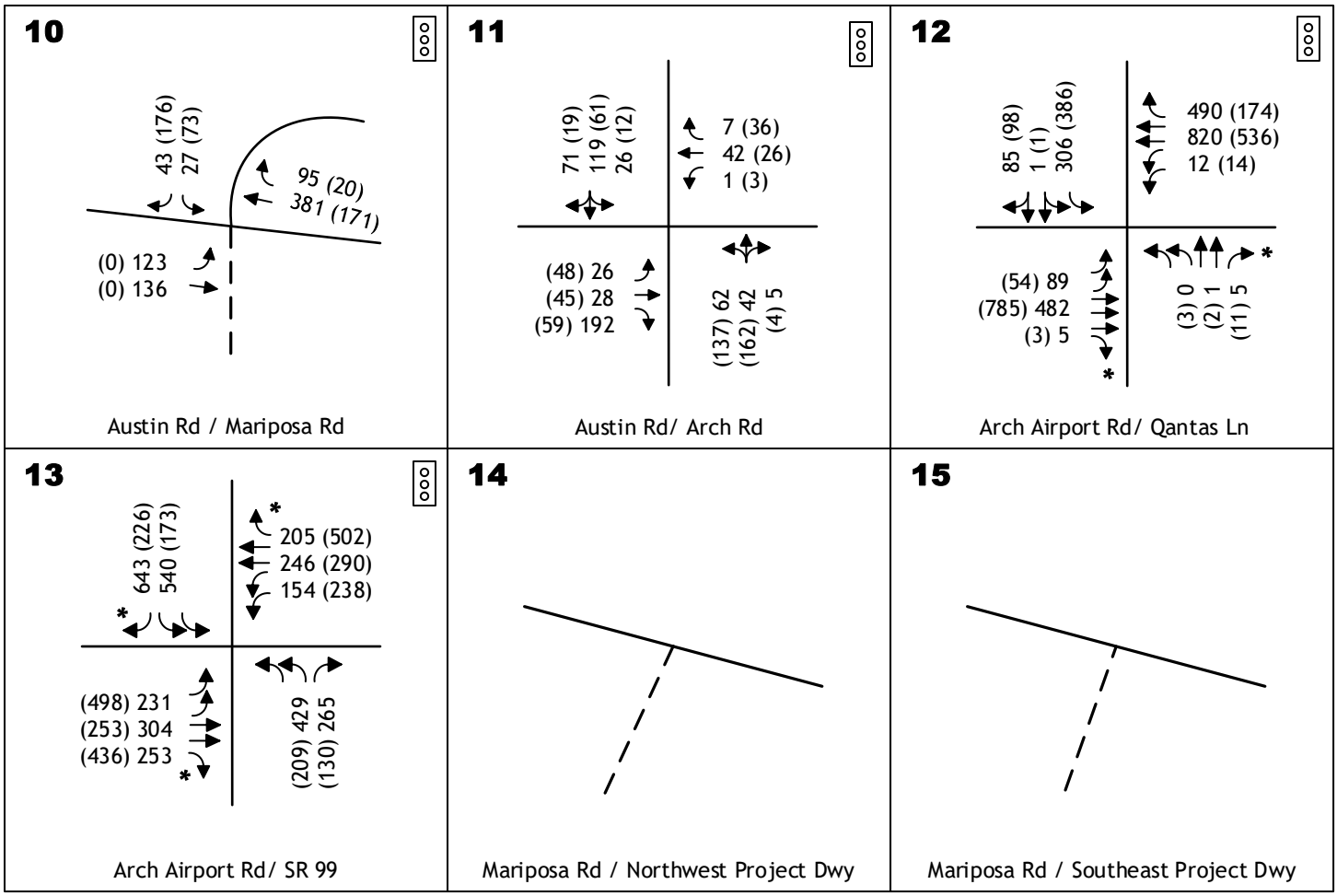
N.T.S.

EXISTING INTERSECTION TRAFFIC VOLUMES AND LANE CONFIGURATIONS

KD Anderson & Associates, Inc.
Transportation Engineers

0780-18 RA 7/9/2021

figure 9



Legend

XX	AM Peak Hour Volume
(XX)	PM Peak Hour Volume
R1-1	Stop Sign
	Signalized Intersection
*	"Free" Right Turn
– – – –	Future Roadway

NORTH

N.T.S.

EXISTING INTERSECTION TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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figure 10

Table 4. Heavy Truck Percentage

	Intersection	AM Peak Hour	PM Peak Hour
1	Golden Gate Avenue & SR 99 Southbound Ramps	6%	4%
2	Golden Gate Avenue & SR 99 Northbound Ramps	7%	3%
3	Mariposa Road & 8th Street/Farmington Road	9%	3%
4	Mariposa Road & SR 99 West Frontage Road	5%	5%
5	Mariposa Road & SR 99 Southbound Ramps	7%	6%
6	Mariposa Road & SR 99 Northbound Ramps	9%	7%
7	Mariposa Road & Stagecoach Road	21%	10%
8	Mariposa Road & Munford Avenue	20%	9%
9	Mariposa Road & Carpenter Road	20%	8%
10	Mariposa Road & Austin Road	10%	6%
11	Arch Road & Austin Road	20%	20%
12	Arch-Airport Road & Qantas Lane	8%	9%
13	Arch Road & SR 99	9%	9%
14	Mariposa Road & Northwest Project Driveway	20%	8%
15	Mariposa Road & Southeast Project Driveway	20%	8%

Source: Peak hour intersection traffic volume count data.

Table 5. Intersection Level of Service - Existing Conditions

	Study Intersections	Inters. Control	Signal Warrant Met?	AM Peak LOS	AM Peak Delay	PM Peak LOS	PM Peak Delay
1	Golden Gate Avenue & SR 99 Southbound Ramps	Signal		B	13.3	B	15.2
2	Golden Gate Avenue & SR 99 Northbound Ramps	Signal		B	13.6	B	13.9
3	Mariposa Road & 8th Street/Farmington Road	Signal		C	34.0	C	32.4
4	Mariposa Road & SR 99 West Frontage Road	Signal		B	17.8	B	17.1
5	Mariposa Road & SR 99 Southbound Ramps	Signal		A	9.5	B	10.1
6	Mariposa Road & SR 99 Northbound Ramps	Signal		A	9.1	A	9.0
7	Mariposa Road & Stagecoach Road	Signal		B	18.4	B	17.3
8	Mariposa Road & Munford Avenue	Signal		B	11.7	B	17.7
9	Mariposa Road & Carpenter Road	Unsig	No	A	1.8	A	2.4
10	Mariposa Road & Austin Road	Signal		B	15.1	B	16.6
11	Arch Road & Austin Road	Signal		C	28.8	C	27.2
12	Arch-Airport Road & Qantas Lane	Signal		B	16.9	B	17.2
13	Arch Road & SR 99	Signal		B	18.4	B	17.0
14	Mariposa Road & Northwest Project Driveway	- -		- -	- -	- -	- -
15	Mariposa Road & Southeast Project Driveway	- -		- -	- -	- -	- -

Notes: LOS = Level of Service. "Inters. Control" = Type of intersection control.
"Signal" = Signalized light control. "Unsig" = Unsignalized stop-sign control.
Delay is measured in seconds per vehicle.
Per City of Stockton guidelines, intersection average delay is reported for all intersections, including unsignalized intersections.
Dashes ("- -") indicate intersection not present under this scenario.

At study roadway segment 105, Mariposa Road between SR 99 and 8th Street/Farmington Road, pre-Covid-19 traffic volume count data for weekday 24-hour periods were collected from StreetLight Data. These data represent Tuesday through Thursday volumes collected during six non-holiday months between March 2019 and February 2020. Traffic volume count data collected from StreetLight Data are presented in the technical appendix.

To validate the 24-hour roadway segment traffic volume data collected from StreetLight Data, new count data were also collected on Tuesday January 12, 2021 on Mariposa Road between SR 99 and 8th Street/Farmington Road.

For the following freeway mainline roadway segments, 24-hour traffic volume data were collected from the Caltrans Traffic Census Program Internet Website (California Department of Transportation 2021) and applied in this traffic impact study.

101. SR 99 North of Crosstown Freeway (SR 4)
102. Crosstown Freeway (SR 4) West of SR 99
103. SR 99 Between Crosstown Freeway (SR 4) and Golden Gate Avenue
104. SR 99 Between Golden Gate Avenue and Mariposa Road
110. SR 99 Between Mariposa Road and Arch-Airport Road
112. SR 99 South of Arch-Airport Road

Table 6 presents the existing daily traffic volumes for study roadway segments.

Roadway Segment Levels of Service

Table 6 presents a summary of existing LOS on the 12 study roadway segments. 11 of the study roadway segments operate at acceptable LOS C or better. No improvements are needed on these 11 roadway segments to achieve acceptable LOS.

105. Mariposa Road Between SR 99 and 8th Street/Farmington Road

Under Existing Conditions, this roadway segment operates at LOS E. This LOS is considered unacceptable. The following improvement is recommended:

- Widen the portions of this roadway segment which are one lane in each direction to two lanes in each direction.

Table 6. Roadway Segment Level of Service - Existing Conditions

Roadway Segment	Number of Lanes	Daily Capacity	Daily Volume	V/C Ratio	Level of Service
101. SR 99 - North of Crosstown Freeway (SR 4)	8	172,800	95,000	0.55	C
102. Crosstown Freeway - West of SR 99	8	172,800	104,900	0.61	C
103. SR 99 - Between Crosstown Fwy and Golden Gate Avenue	8	172,800	94,000	0.54	C
104. SR 99 - Between Golden Gate Ave and Mariposa Rd	8	172,800	92,300	0.53	C
105. Mariposa Road - Between SR 99 and 8th St./Farmington Rd	2	17,300	16,295	0.94	E
106. Mariposa Road - Between Carpenter Road and SR 99	2	17,300	10,034	0.58	C
107. Mariposa Road - Between the Project Site and Carpenter Road	2	17,300	9,042	0.52	B
108. Mariposa Road - Southeast of the Project Site	2	17,300	9,042	0.52	B
109. Mariposa Road - East of Austin Road	2	17,300	8,149	0.47	A
110. SR 99 - Between Mariposa Road and Arch-Airport Road	6	129,600	80,600	0.62	C
111. Arch-Airport Road - Between Qantas Lane and SR 99	6	59,300	26,889	0.45	A
112. SR 99 - South of Arch-Airport Road	6	129,600	85,000	0.66	C

Notes: "SR" = State Route. "V/C Ratio" = volume-to-capacity ratio.

A summary of LOS with recommended improvements is presented in **Table 7**. With this recommended improvement, this roadway segment would operate at LOS A. This LOS is considered acceptable.

Table 7. Roadway Segment Level of Service - Existing Conditions With Recommended Improvements

Roadway Segment	Number of Lanes	Daily Capacity	Daily Volume	V/C Ratio	Level of Service
105. Mariposa Road - Between SR 99 and 8th St./Farmington Rd	4	38,200	16,295	0.43	A

Notes: "SR" = State Route. "V/C Ratio" = volume-to-capacity ratio.

EXISTING RAMP JUNCTION TRAFFIC VOLUMES AND LEVELS OF SERVICE

The following is a description of existing traffic operating conditions at the study ramp junctions.

Ramp Junction Traffic Volumes

As described in more detail previously in this traffic impact study, to ensure data used in this study are representative, the traffic analysis of the Mariposa Industrial Park project is based on both existing traffic volume data collected before the outbreak of Covid-19, and current new traffic volume count data collected since the outbreak.

Traffic volume count data were collected for the following freeway ramp junctions for the *Public Review Draft Environmental Impact Report for the Sanchez-Hoggan Annexation* (City of Stockton 2020). These data are applied in this traffic impact study.

208. SR 99 at Mariposa Road Southbound On-Ramp (Slip) Merge
209. SR 99 at Mariposa Road Northbound Off-Ramp Diverge
210. SR 99 at Arch-Airport Road Southbound Off-Ramp Diverge
211. SR 99 at Arch-Airport Road Northbound On-Ramp Merge
212. SR 99 at Arch-Airport Road Southbound On-Ramp Merge
213. SR 99 at Arch-Airport Road Northbound Off-Ramp Diverge

At the following study ramp junctions, pre-Covid-19 count data were collected for weekday periods between 7:00 a.m. and 9:00 a.m., and between 4:00 p.m. and 6:00 p.m. from StreetLight Data. These data represent Tuesday through Thursday volumes collected during six non-holiday months between March 2019 and February 2020. Traffic volume count data collected from StreetLight Data are presented in the technical appendix.

201. SR 99 Southbound Weave Area Between Fremont Street and Crosstown Freeway
202. SR 99 Northbound Weave Area Between Crosstown Freeway and Fremont Street
203. SR 99 Northbound at Crosstown Freeway (SR 4) Off-Ramp Diverge
204. SR 99 at Golden Gate Avenue Southbound Off-Ramp Diverge
205. SR 99 at Golden Gate Avenue Northbound On-Ramp Merge
206. SR 99 Southbound Weave Area Between Golden Gate Avenue and Mariposa Road
207. SR 99 Northbound Weave Area Between Mariposa Road and Golden Gate Avenue

To validate the ramp junction traffic volume data collected from StreetLight Data, peak hour traffic volume data for freeway facilities were collected from the Caltrans PeMS database (http://pems.dot.ca.gov/). Data for Tuesdays, Wednesdays and Thursdays between February 4, 2020 and Thursday February 13, 2020 were used to validate the traffic volume data collected from StreetLight Data.

Figure 11 and **Figure 12** present the existing a.m. peak hour and p.m. peak hour traffic volumes at the existing ramp junctions.

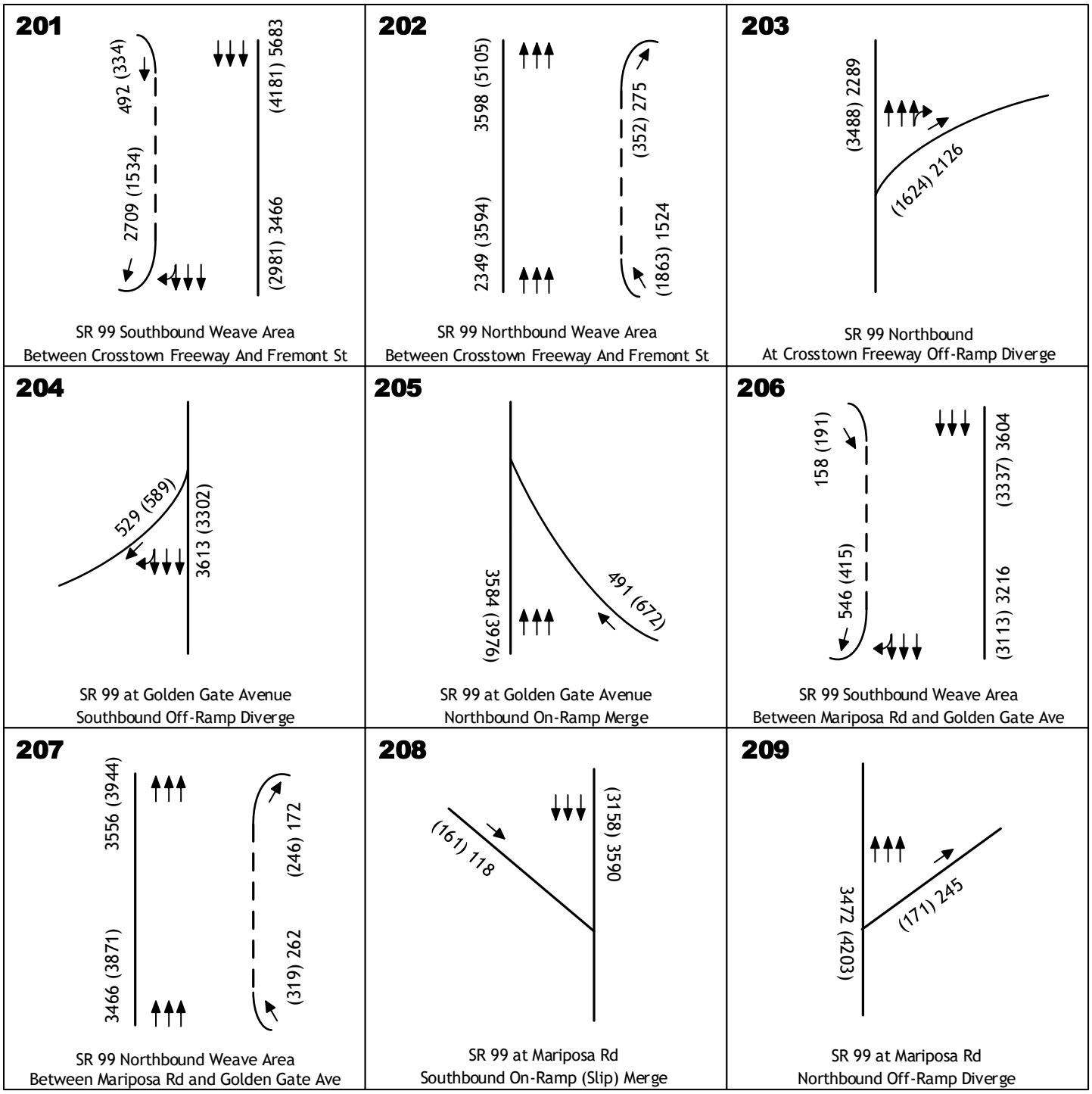
Ramp Junction Levels of Service

Table 8 presents a summary of existing a.m. peak hour and p.m. peak hour LOS at the 13 study ramp junctions. The worksheets presenting the calculation of LOS are included in the technical appendix.

12 of the 13 ramp junctions operate at acceptable LOS C or better during both the a.m. peak hour and p.m. peak hour. No improvements are needed at these 12 ramp junctions to achieve acceptable LOS.

201. SR 99 Southbound Weave Area Between Fremont Street and Crosstown Freeway

Under Existing Conditions, the SR 99 southbound weave area between the Fremont Street interchange and the Crosstown Freeway interchange operates at LOS E during the a.m. peak hour. This LOS is considered unacceptable. Existing land use adjacent to SR 99 and the location of the two interchanges results in improvements to the weave area being considered not feasible. As a result, no improvements are recommended to improve LOS at this location.



EXISTING FREEWAY RAMP MERGE, DIVERGE, AND WEAVE AREA TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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Transportation Engineers

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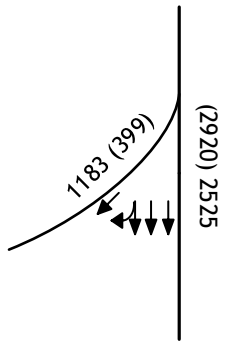
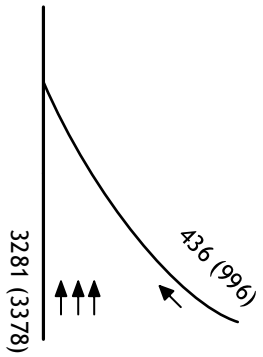
figure 11

210



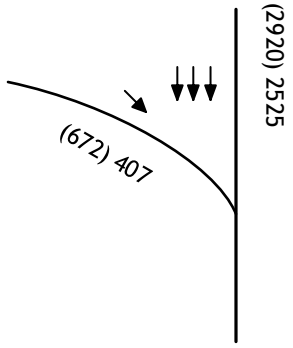
SR 99 at Arch-Airport Rd
Southbound Off-Ramp Diverge

211



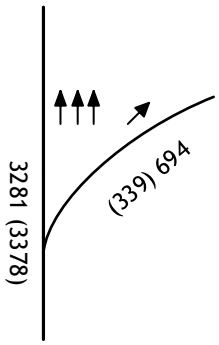
SR 99 at Arch-Airport Rd
Northbound On-Ramp Merge

212



SR 99 Northbound
At Crosstown Freeway Off-Ramp Diverge

213



SR 99 at Arch-Airport Rd
Northbound Off-Ramp Diverge

Legend

XX AM Peak Hour Volume
(XX) PM Peak Hour Volume
Weave Area Auxillary Lane
Number of Arrows Indicate Number of Lanes

NORTH
N.T.S.

EXISTING FREEWAY RAMP MERGE, DIVERGE, AND WEAVE AREA TRAFFIC VOLUMES AND LANE CONFIGURATIONS

Table 8. State Route 99 Ramp Merge, Diverge, and Weave Level of Service - Existing Conditions

	Ramp Junction	AM Peak Hour Freeway Volume	AM Peak Hour Ramp Volume	AM Peak Hour Density	AM Peak Hour LOS	PM Peak Hour Freeway Volume	PM Peak Hour Ramp Volume	PM Peak Hour Density	PM Peak Hour LOS
201	SB Weave Between	5,688	492	> Capacity	F	4,181	334	21.4	C
	Fremont St & Crosstown Fwy	3,466	2,709			2,981	1,534		
202	NB Weave Between	3,598	275	18.1	B	5,105	352	26.3	C
	Crosstown Fwy & Fremont St	2,349	1,524			3,594	1,863		
203	NB at Crosstown Fwy Off-Ramp	2,289	2,126	< 10	A	3,488	1,624	< 10	A
204	Golden Gate Ave SB Off-Ramp	3,613	529	< 10	A	3,302	589	< 10	A
205	Golden Gate Ave NB On-Ramp	3,584	491	19.3	B	3,976	672	22.9	C
206	SB Weave Between	3,604	158	17.5	B	3,337	191	16.4	B
	Golden Gate Ave & Mariposa Rd	3,216	546			3,113	415		
207	NB Weave Between	3,556	172	17.3	B	3,944	246	19.7	B
	Mariposa Rd & Golden Gate Ave	3,466	262			3,871	319		
208	Mariposa Rd SB On-Ramp (Slip)	3,590	118	16.9	B	3,158	161	14.9	B
209	Mariposa Rd NB Off-Ramp	3,472	245	22.2	C	4,203	171	25.8	C
210	Arch-Airport Rd SB Off-Ramp	2,525	1,183	< 10	A	2,920	399	< 10	A
211	Arch-Airport Rd NB On-Ramp	3,281	436	17.3	B	3,378	996	22.3	C
212	Arch-Airport Rd SB On-Ramp	2,525	407	14.0	B	2,920	672	18.3	B
213	Arch-Airport Rd NB Off-Ramp	3,281	694	22.1	C	3,378	339	21.8	C

Notes: "LOS" = Level of Service. "NB" = Northbound. "SB" = Southbound.
Density is expressed in passenger cars per mile per lane. "> Capacity" = volume-to-capacity ratio greater than 1.0.
For weave areas, north freeway and ramp volumes are listed first and south volumes are listed second.

EXISTING PLUS APPROVED PROJECTS
NO MARIPOSA INDUSTRIAL PARK PROJECT CONDITIONS

The EPAP No Mariposa Industrial Park Project condition is a near-term future background condition. This condition is also referred to in this traffic impact study as EPAP No Project conditions. Development of land uses and roadway improvements associated with previously-approved but as yet unconstructed projects are assumed in this condition. This scenario does not include development of the proposed Mariposa Industrial Park project. The EPAP No Project condition, therefore, serves as the baseline condition used to assess the significance of near-term project-related traffic effects.

TRAFFIC VOLUME FORECASTS

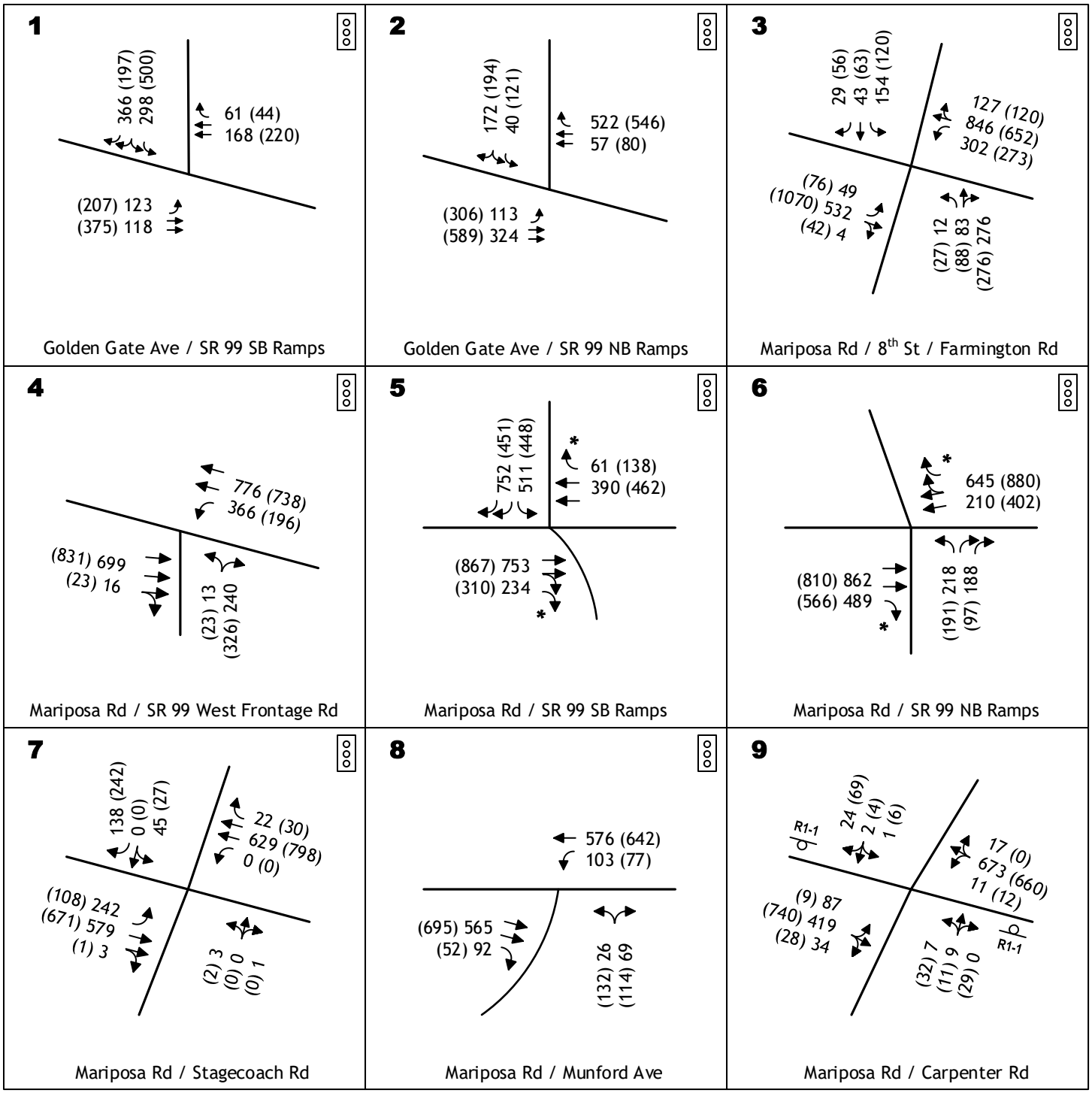
In consultation with City of Stockton staff (Moore pers. comm.), the City of Stockton Travel Demand Model (City of Stockton 2004) was used to develop forecasts of background increases in traffic volumes under near-term EPAP conditions. The increases in traffic volumes reflect development of near-term previously-approved projects in Stockton. The model was modified in the vicinity of the project site to add detail to the model and more accurately represent how land uses are provided access to the roadway network. Minor changes were also made to land uses in the model to accurately represent land uses.

Application of these methods results in the a.m. peak hour and p.m. peak hour intersection traffic volumes presented in **Figure 13** and **Figure 14,** the daily traffic volumes presented in **Table 9,** and the a.m. peak hour and p.m. peak hour ramp junction traffic volumes presented in **Figure 15** and **Figure 16**.

ROADWAY IMPROVEMENTS

The EPAP No Project condition assumes roadway improvements associated with previously-approved land use development projects, and approved roadway improvement projects. These near-term roadway improvements were identified in the *NorCal Logistics Center – Draft Environmental Impact Report (Project File No. P12-110)* (City of Stockton 2014), and the *Draft Environmental Impact Report - Mariposa Lakes Specific Plan - State Clearinghouse #2006022035* (City of Stockton 2007) and the *Public Review Draft Environmental Impact Report for the Sanchez-Hoggan Annexation* (City of Stockton 2020). The improvements include, for example, construction of a fourth leg at the intersection of Mariposa Road & Austin Road, which is associated with the Sanchez-Hoggan development project.

The resulting lane geometrics assumed for EPAP No Project conditions are shown in **Figure 13** and **Figure 14** and in **Table 9**.



Legend

XX	AM Peak Hour Volume
(XX)	PM Peak Hour Volume
R1-1	Stop Sign
	Signalized Intersection
*	"Free" Right Turn
– – – –	Future Roadway

NORTH

N.T.S.

EPAP NO PROJECT
INTERSECTION TRAFFIC VOLUMES
AND LANE CONFIGURATIONS

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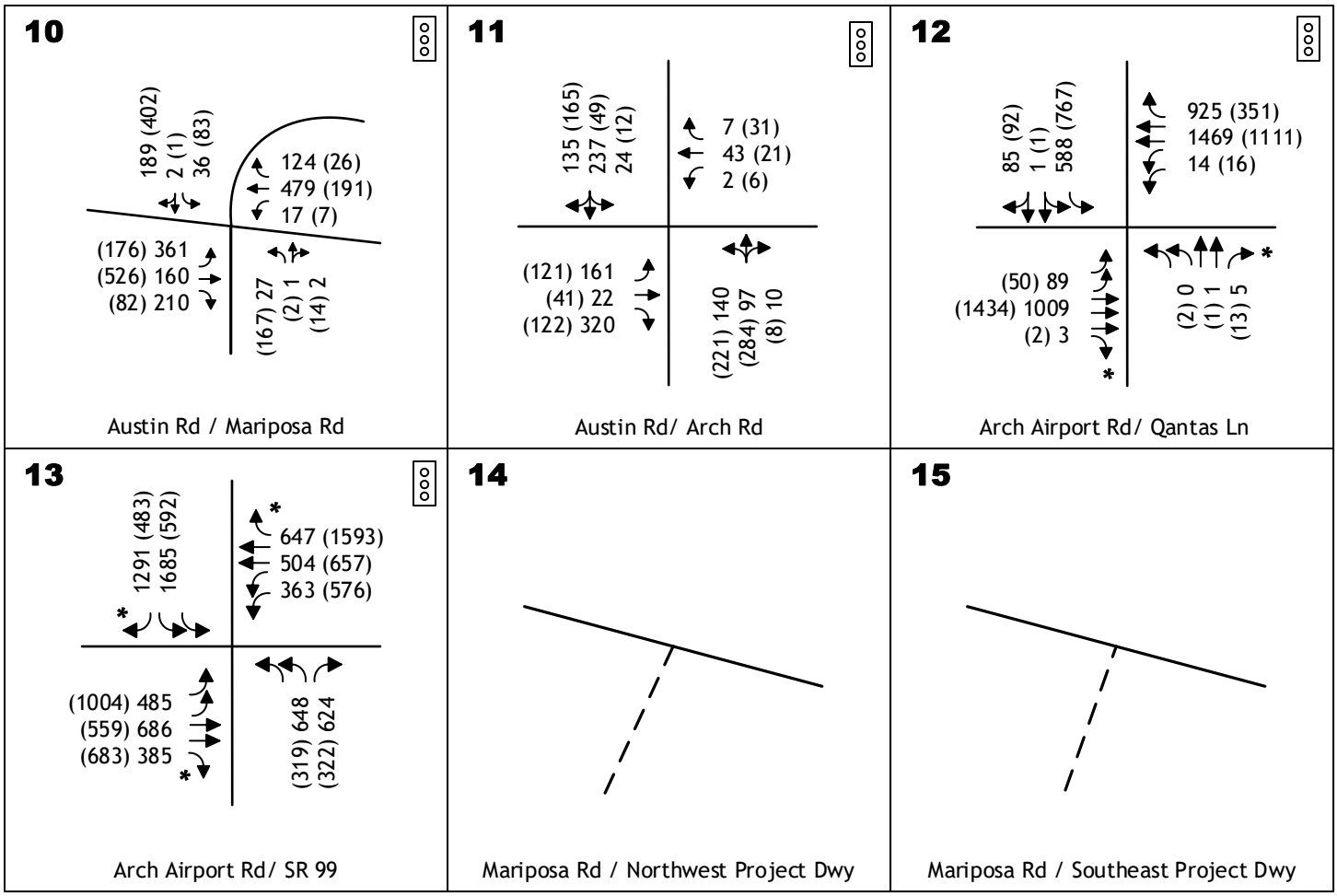
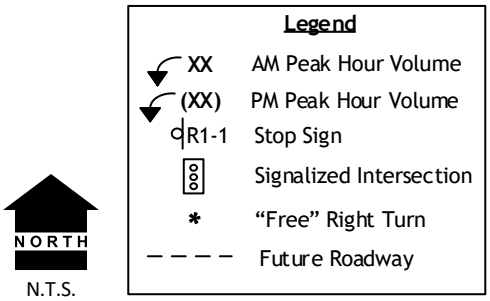
figure 13





EPAP NO PROJECT
INTERSECTION TRAFFIC VOLUMES
AND LANE CONFIGURATIONS

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0780-18 RA 7/9/2021

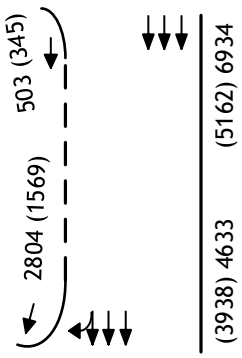
figure 14

Table 9. Roadway Segment Level of Service -
Existing Plus Approved Projects (EPAP) No Project Conditions

Roadway Segment	Number of Lanes	Daily Capacity	Daily Volume	V/C Ratio	Level of Service
101. SR 99 - North of Crosstown Freeway (SR 4)	8	172,800	110,947	0.64	C
102. Crosstown Freeway - West of SR 99	8	172,800	117,127	0.68	C
103. SR 99 - Between Crosstown Fwy and Golden Gate Avenue	8	172,800	120,768	0.70	C
104. SR 99 - Between Golden Gate Ave and Mariposa Rd	8	172,800	119,541	0.69	C
105. Mariposa Road - Between SR 99 and 8th St./Farmington Rd	2	17,300	25,552	1.48	F
106. Mariposa Road - Between Carpenter Road and SR 99	4	38,200	16,570	0.43	A
107. Mariposa Road - Between the Project Site and Carpenter Road	4	38,200	15,285	0.40	A
108. Mariposa Road - Southeast of the Project Site	4	38,200	15,285	0.40	A
109. Mariposa Road - East of Austin Road	4	38,200	11,039	0.29	A
110. SR 99 - Between Mariposa Road and Arch-Airport Road	6	129,600	95,887	0.74	D
111. Arch-Airport Road - Between Qantas Lane and SR 99	6	59,300	50,887	0.86	E
112. SR 99 - South of Arch-Airport Road	6	129,600	85,077	0.66	C

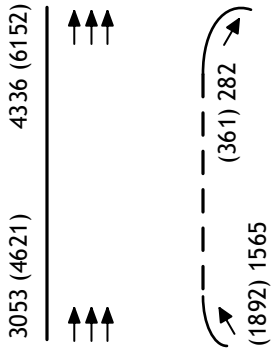
Notes: "SR" = State Route. "V/C Ratio" = volume-to-capacity ratio.

201



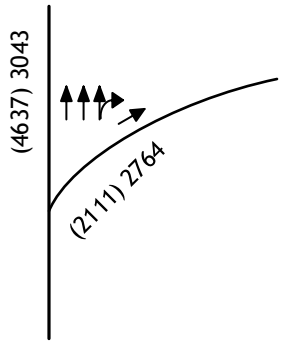
SR 99 Southbound Weave Area
Between Crosstown Freeway And Fremont St

202



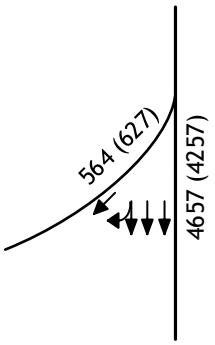
SR 99 Northbound Weave Area
Between Crosstown Freeway And Fremont St

203



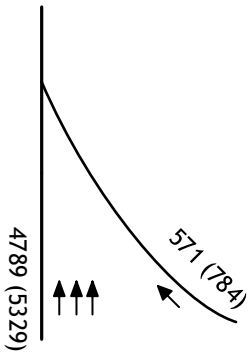
SR 99 Northbound
At Crosstown Freeway Off-Ramp Diverge

204



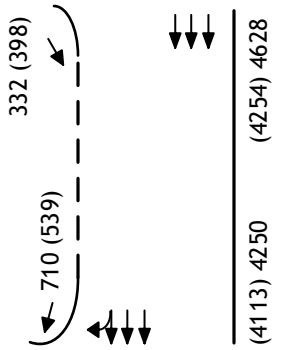
SR 99 at Golden Gate Avenue
Southbound Off-Ramp Diverge

205



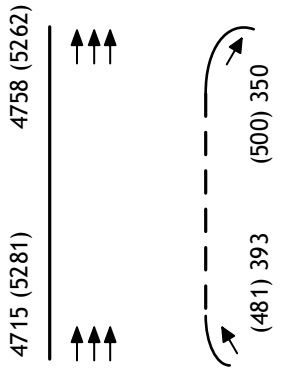
SR 99 at Golden Gate Avenue
Northbound On-Ramp Merge

206



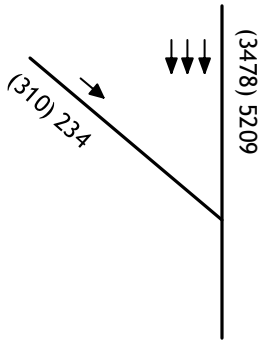
SR 99 Southbound Weave Area
Between Mariposa Rd and Golden Gate Ave

207



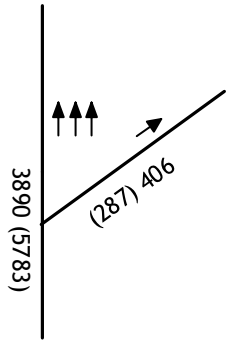
SR 99 Northbound Weave Area
Between Mariposa Rd and Golden Gate Ave

208



SR 99 at Mariposa Rd
Southbound On-Ramp (Slip) Merge

209



SR 99 at Mariposa Rd
Northbound Off-Ramp Diverge

Legend

XX AM Peak Hour Volume
(XX) PM Peak Hour Volume
Weave Area Auxillary Lane
Number of Arrows Indicate Number of Lanes

NORTH
N.T.S.

EPAP NO PROJECT FREEWAY RAMP MERGE, DIVERGE, AND WEAVE AREA TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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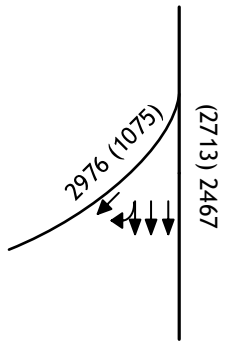
0780-18 RA 7/9/2021

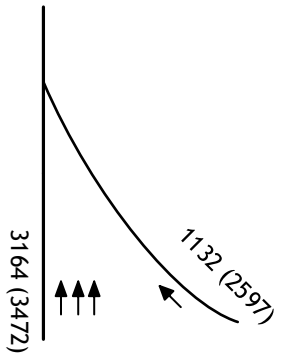
figure 15

210



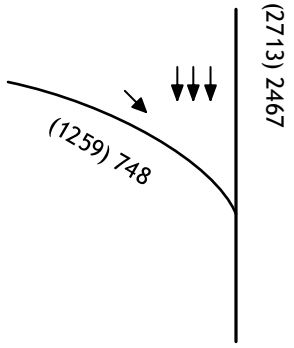
SR 99 at Arch-Airport Rd
Southbound Off-Ramp Diverge

211



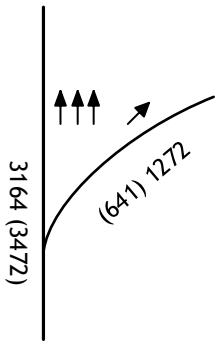
SR 99 at Arch-Airport Rd
Northbound On-Ramp Merge

212



SR 99 Northbound
At Crosstown Freeway Off-Ramp Diverge

213



SR 99 at Arch-Airport Rd
Northbound Off-Ramp Diverge

Legend

XX AM Peak Hour Volume
(XX) PM Peak Hour Volume
Weave Area Auxillary Lane
Number of Arrows Indicate Number of Lanes

NORTH

N.T.S.

EPAP NO PROJECT FREEWAY RAMP MERGE, DIVERGE, AND WEAVE AREA TRAFFIC VOLUMES AND LANE CONFIGURATIONS

KD Anderson & Associates, Inc.
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0780-18 RA 7/9/2021

figure 16

INTERSECTION LEVELS OF SERVICE

Table 10 presents the a.m. peak hour and p.m. peak hour LOS at each study intersection under EPAP No Project conditions. The worksheets presenting the calculation of LOS are included in the technical appendix.

Traffic volumes under EPAP No Project conditions would be generally higher than under Existing Conditions and, as a result, vehicle delay at study intersections under EPAP No Project conditions would be higher than under Existing Conditions.

Under EPAP No Project conditions, LOS at 10 of the 13 study intersections would be at acceptable LOS D or better during both the a.m. peak hour and the p.m. peak hour. No improvements are needed at these 10 intersections to achieve acceptable LOS. The following describes the three study intersections that would operate at unacceptable LOS under EPAP No Project conditions.

3. Mariposa Road & 8th Street/Farmington Road

Under EPAP No Project conditions, the intersection of Mariposa Road & 8th Street/Farmington Road would operate at LOS F with 94.9 seconds of delay during the a.m. peak hour, and LOS F with 130.0 seconds of delay during the p.m. peak hour. LOS F is considered unacceptable. The following improvement is recommended:

- Split the northeastbound combined through/right-turn lane into an exclusive northeastbound through lane and a "free" northeastbound-to-southeastbound right-turn lane.

The above improvement would be consistent with the recommended improvement (described below) for Roadway Segment 105, Mariposa Road Between SR 99 and 8th Street/Farmington Road, to widen the portions of this roadway segment which are one lane in each direction to two lanes in each direction. The added southeastbound departure lane on Mariposa Road would serve vehicles departing the "free" northeastbound-to-southeastbound right-turn lane at this intersection.

The existing northeastbound combined through/right-turn lane is approximately 23 to 24 feet wide and the single southwestbound departure lane is approximately 21 to 22 feet wide. As a result, the existing pavement width on the southwest leg of this intersection is considered wide enough to accommodate the above improvement.

As shown in **Table 11**, implementation of the above recommended improvement would improve traffic operations to LOS D with 38.2 seconds of delay in the a.m. peak hour and LOS E with 64.3 seconds of delay in the p.m. peak hour. As described in the *General Plan Policy Consistency Criteria* section of this traffic impact study, LOS D and E at this intersection are considered acceptable.

Table 10. Intersection Level of Service -
Existing Plus Approved Projects (EPAP) No Project Conditions

	Study Intersections	Inters. Control	Signal Warrant Met?	AM Peak LOS	AM Peak Delay	PM Peak LOS	PM Peak Delay
1	Golden Gate Avenue & SR 99 Southbound Ramps	Signal		B	14.1	B	15.9
2	Golden Gate Avenue & SR 99 Northbound Ramps	Signal		B	15.6	C	23.2
3	Mariposa Road & 8th Street/Farmington Road	Signal		F	94.9	F	130.0
4	Mariposa Road & SR 99 West Frontage Road	Signal		B	13.7	B	14.2
5	Mariposa Road & SR 99 Southbound Ramps	Signal		B	12.7	B	12.1
6	Mariposa Road & SR 99 Northbound Ramps	Signal		B	10.1	A	9.9
7	Mariposa Road & Stagecoach Road	Signal		B	19.8	B	19.3
8	Mariposa Road & Munford Avenue	Signal		B	12.7	B	17.8
9	Mariposa Road & Carpenter Road	Unsig	Yes	A	1.8	A	6.3
10	Mariposa Road & Austin Road	Signal		C	32.7	D	38.7
11	Arch Road & Austin Road	Signal		D	43.1	D	38.4
12	Arch-Airport Road & Qantas Lane	Signal		E	60.0	C	27.8
13	Arch Road & SR 99	Signal		F	195.4	E	69.5
14	Mariposa Road & Northwest Project Driveway	- -		- -	- -	- -	- -
15	Mariposa Road & Southeast Project Driveway	- -		- -	- -	- -	- -

Notes: LOS = Level of Service. "Inters. Control" = Type of intersection control.
"Signal" = Signalized light control. "Unsig" = Unsignalized stop-sign control.
Delay is measured in seconds per vehicle.
Per City of Stockton guidelines, intersection average delay is reported for all intersections, including unsignalized intersections.
Dashes ("- -") indicate intersection not present under this scenario.

Table 11. Intersection Level of Service -
Existing Plus Approved Projects (EPAP) No Project Conditions
With Recommended Improvements

	Study Intersections	Inters. Control	AM Peak LOS	AM Peak Delay	PM Peak LOS	PM Peak Delay
3	Mariposa Road & 8th Street/Farmington Road	Signal	D	38.2	E	64.3
12	Arch-Airport Road & Qantas Lane	Signal	C	31.6	C	26.8

Notes: LOS = Level of Service. "Inters. Control" = Type of intersection control.
"Signal" = Signalized light control.
Delay is measured in seconds per vehicle.
Per City of Stockton guidelines, intersection average delay is reported for all intersections.

12. Arch-Airport Road & Qantas Lane

Under EPAP No Project conditions, the intersection of Arch-Airport Road & Qantas Lane would operate at LOS E with 60.0 seconds of delay during the a.m. peak hour, and LOS C with 27.8 seconds of delay during the p.m. peak hour. LOS E is considered unacceptable. The following improvement is recommended:

- Change the signal timing to include overlap phasing on the northwestbound-to-northeastbound right-turn movement.

As shown in **Table 11**, implementation of the above recommended improvement would improve traffic operations to LOS C with 31.6 seconds of delay in the a.m. peak hour and LOS C with 26.8 seconds of delay in the p.m. peak hour. LOS C is considered acceptable.

13. Arch Road & SR 99

Under EPAP No Project conditions, the intersection of Arch Road & SR 99 would operate at LOS F with 195.4 seconds of delay during the a.m. peak hour, and LOS E with 69.5 seconds of delay during the p.m. peak hour. LOS E and F are considered unacceptable.

The unacceptable LOS at this intersection under EPAP No Project conditions would be due to increases in traffic volume along Arch Road, and on the SR 99 interchange ramps. Improvement of LOS at this intersection to acceptable LOS would require re-structuring of the interchange facility.

Reconstruction of the Arch–Airport Road interchange on SR 99, including additional eastbound and westbound through lanes would be required to achieve acceptable LOS. The EPAP No Project scenario is considered a near-term condition, and reconstruction of the interchange in the near-term future is not considered feasible. Therefore, improvements at this intersection are not recommended.

ROADWAY SEGMENT LEVELS OF SERVICE

Table 9 presents a summary of LOS on the 12 study roadway segments under EPAP No Project conditions. 10 of the 12 roadway segments would operate at acceptable LOS D or better. No improvements are needed on these 10 roadway segments to achieve acceptable LOS. The following describes the two study roadway segments that would operate at unacceptable LOS under EPAP No Project conditions.

105. Mariposa Road Between SR 99 and 8th Street/Farmington Road

Under EPAP No Project conditions, this roadway segment would operate at LOS F. This LOS is considered unacceptable. The following improvement is recommended:

- Widen the portions of this roadway segment which are one lane in each direction to two lanes in each direction.

A summary of LOS with recommended improvements is presented in **Table 12**. With this recommended improvement, this roadway segment would operate at LOS C. This LOS is considered acceptable.

This improvement is also recommended under Existing Conditions.

111. Arch-Airport Road Between Qantas Lane and SR 99

Under EPAP No Project conditions, this roadway segment would operate at LOS E. This LOS is considered unacceptable. Widening of this roadway segment to add through lanes to improve LOS would require reconstruction of the Arch-Airport Road interchange on SR 99. The EPAP No Project scenario is considered a near-term condition, and reconstruction of the interchange in the near-term future is not considered feasible. Therefore, improvement to this roadway segment is not recommended.

Table 12. Roadway Segment Level of Service -
Existing Plus Approved Projects (EPAP) No Project Conditions
With Recommended Improvements

Roadway Segment	Number of Lanes	Daily Capacity	Daily Volume	V/C Ratio	Level of Service
105. Mariposa Road - Between SR 99 and 8th St./Farmington Rd	4	38,200	25,552	0.67	C

Notes: "SR" = State Route. "V/C Ratio" = volume-to-capacity ratio.

RAMP JUNCTION LEVELS OF SERVICE

Figure 15 and **Figure 16** presents a.m. peak hour and p.m. peak hour traffic volumes at the study ramp junctions under EPAP No Project conditions. **Table 13** presents the a.m. peak hour and p.m. peak hour LOS at each study ramp junction under EPAP No Project conditions. The worksheets presenting the calculation of LOS are included in the technical appendix.

Traffic volumes under EPAP No Project conditions would be generally higher than under Existing Conditions and, as a result, vehicle density at study ramp junctions under EPAP No Project conditions would be higher than under Existing Conditions.

Under EPAP No Project conditions, LOS at 10 of the 13 study ramp junctions would be at acceptable LOS D or better during both the a.m. peak hour and the p.m. peak hour. No improvements are needed at these 10 ramp junctions to achieve acceptable LOS.

The following three ramp junction areas would operate at unacceptable LOS under EPAP No Project conditions:

- 201. SR 99 Southbound Weave Area Between Fremont Street and Crosstown Freeway would operate at LOS F during the a.m. peak hour,
- 205. SR 99 at Golden Gate Avenue Northbound On-Ramp Merge would operate at LOS F during the p.m. peak hour, and
- 211. SR 99 at Arch-Airport Road Northbound On-Ramp Merge would operate at LOS E in the p.m. peak hour.

Table 13. State Route 99 Ramp Merge, Diverge, and Weave Level of Service - Existing Plus Approved Projects (EPAP) No Project Conditions

Ramp Junction	AM Peak Hour				PM Peak Hour			
	Freeway Volume	Ramp Volume	Density	LOS	Freeway Volume	Ramp Volume	Density	LOS
201 SB Weave Between	6,934	503	> Capacity	F	5,162	345	26.6	C
Fremont St & Crosstown Fwy	4,633	2,804			3,938	1,569		
202 NB Weave Between	4,336	282	21.9	C	6,152	361	32.1	D
Crosstown Fwy & Fremont St	3,053	1,565			4,621	1,892		
203 NB at Crosstown Fwy Off-Ramp	3,043	2,764	< 10	A	4,637	2,111	< 10	A
204 Golden Gate Ave SB Off-Ramp	4,657	564	< 10	A	4,257	627	< 10	A
205 Golden Gate Ave NB On-Ramp	4,789	571	26.5	C	5,329	784	31.6	F
206 SB Weave Between	4,628	332	23.7	C	4,254	398	22.1	C
Golden Gate Ave & Mariposa Rd	4,250	710			4,113	539		
207 NB Weave Between	4,758	350	24.5	C	5,262	500	28.0	D
Mariposa Rd & Golden Gate Ave	4,715	393			5,281	481		
208 Mariposa Rd SB On-Ramp (Slip)	5,209	234	26.5	C	3,478	310	17.8	B
209 Mariposa Rd NB Off-Ramp	3,890	406	24.7	C	5,783	287	33.2	D
210 Arch-Airport Rd SB Off-Ramp	2,467	2,976	< 10	A	2,713	1,075	< 10	A
211 Arch-Airport Rd NB On-Ramp	3,164	1,132	22.3	C	3,472	2,597	35.9	E
212 Arch-Airport Rd SB On-Ramp	2,467	748	16.5	B	2,713	1,259	22.0	C
213 Arch-Airport Rd NB Off-Ramp	3,164	1,272	22.9	C	3,472	641	23.0	C

Notes: "LOS" = Level of Service. "NB" = Northbound. "SB" = Southbound.
Density is expressed in passenger cars per mile per lane. "> Capacity" = volume-to-capacity ratio greater than 1.0.
For weave areas, north freeway and ramp volumes are listed first and south volumes are listed second.

201. SR 99 Southbound Weave Area Between Fremont Street and Crosstown Freeway

LOS F at the SR 99 Southbound Weave Area Between Fremont Street and Crosstown Freeway is considered unacceptable. Reconstruction of the Fremont Street and Crosstown Freeway interchanges on SR 99, including the addition of lanes on mainline SR 99, would be required to achieve acceptable LOS at this weave area. The EPAP No Project scenario is considered a near-term condition, and reconstruction of this weave area in the near-term future is not considered feasible. In addition, existing land use adjacent to SR 99 and the location of the two interchanges results in improvements to the weave area being considered not feasible. Therefore, improvements to this weave area are not recommended.

205. SR 99 at Golden Gate Avenue Northbound On-Ramp Merge

LOS F at the Golden Gate Avenue Northbound On-Ramp Merge is considered unacceptable. Reconstruction of the Golden Gate Avenue interchange on SR 99, including the addition of lanes on mainline SR 99, would be required to achieve acceptable LOS at this ramp junction. The EPAP No Project scenario is considered a near-term condition, and reconstruction of the interchange in the near-term future is not considered feasible. Therefore, improvements to this ramp junction area are not recommended.

211. SR 99 at Arch-Airport Road Northbound On-Ramp Merge

LOS E at the Arch-Airport Road Northbound On-Ramp Merge is considered unacceptable. Reconstruction of the Arch–Airport Road interchange on SR 99, including the addition of lanes on mainline SR 99, would be required to achieve acceptable LOS at this ramp junction. The EPAP No Project scenario is considered a near-term condition, and reconstruction of the interchange in the near-term future is not considered feasible. Therefore, improvements to this ramp junction area are not recommended.

EXISTING PLUS APPROVED PROJECTS
PLUS MARIPOSA INDUSTRIAL PARK PROJECT IMPACTS

The EPAP Plus Mariposa Industrial Park Project scenario is a near-term future condition with the proposed project. This condition is also referred to in this traffic impact study as EPAP Plus Project conditions.

The development of the Mariposa Industrial Park project would result in vehicle traffic to and from the project site. The amount of additional traffic on a particular section of the street network depends on three factors:

- Trip Generation, the number of new trips generated by the project,
- Trip Distribution, the direction of travel for the new traffic, and
- Trip Assignment, the specific routes used by the new traffic.

Each of these three factors is described below.

TRIP GENERATION

Development of the Mariposa Industrial Park project would generate new vehicle trips and potentially affect traffic operations on study facilities. The number of vehicle trips expected to be generated by the proposed project has been estimated using typical trip generation rates that have been developed based on the nature and size of project land uses. Trip generation rates developed for the City of Stockton (McDowell pers. comm.) were applied for this traffic impact study. These rates have been applied by the City for other projects in the southeast Stockton area (City of Stockton 2014, and Tellez pers. comm.) with land uses similar to the Mariposa Industrial Park project.

The trip generation rates used in this traffic impact study are presented in **Table 14**. The trip generation rates are applied to the amount of project-related land uses. The resulting trip generation estimates are presented in **Table 15**. As shown in **Table 15**, the Mariposa Industrial Park project would generate an estimated 12,370 vehicle trips per day, with 651 trips during the a.m. peak hour and 796 trips during the p.m. peak hour.

TRIP DISTRIBUTION

Project-related trips were geographically distributed over the study area roadway network. The geographical distribution of trips is based on the relative attractiveness or utility of possible destinations. Trip distribution percentages applied in this traffic impact study are presented in **Table 16**. The data presented in **Table 16** are graphically shown in **Figure 17** and **Figure 18**.

Table 14. Trip Generation Rates

Land Use	Units	Trips per Unit						
		Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Light Industrial	Thousand Square Feet	3.42	0.11	0.07	0.18	0.08	0.14	0.22

Source: McDowell pers. comm. and City of Stockton 2014.

Table 15. Trip Generation Estimate

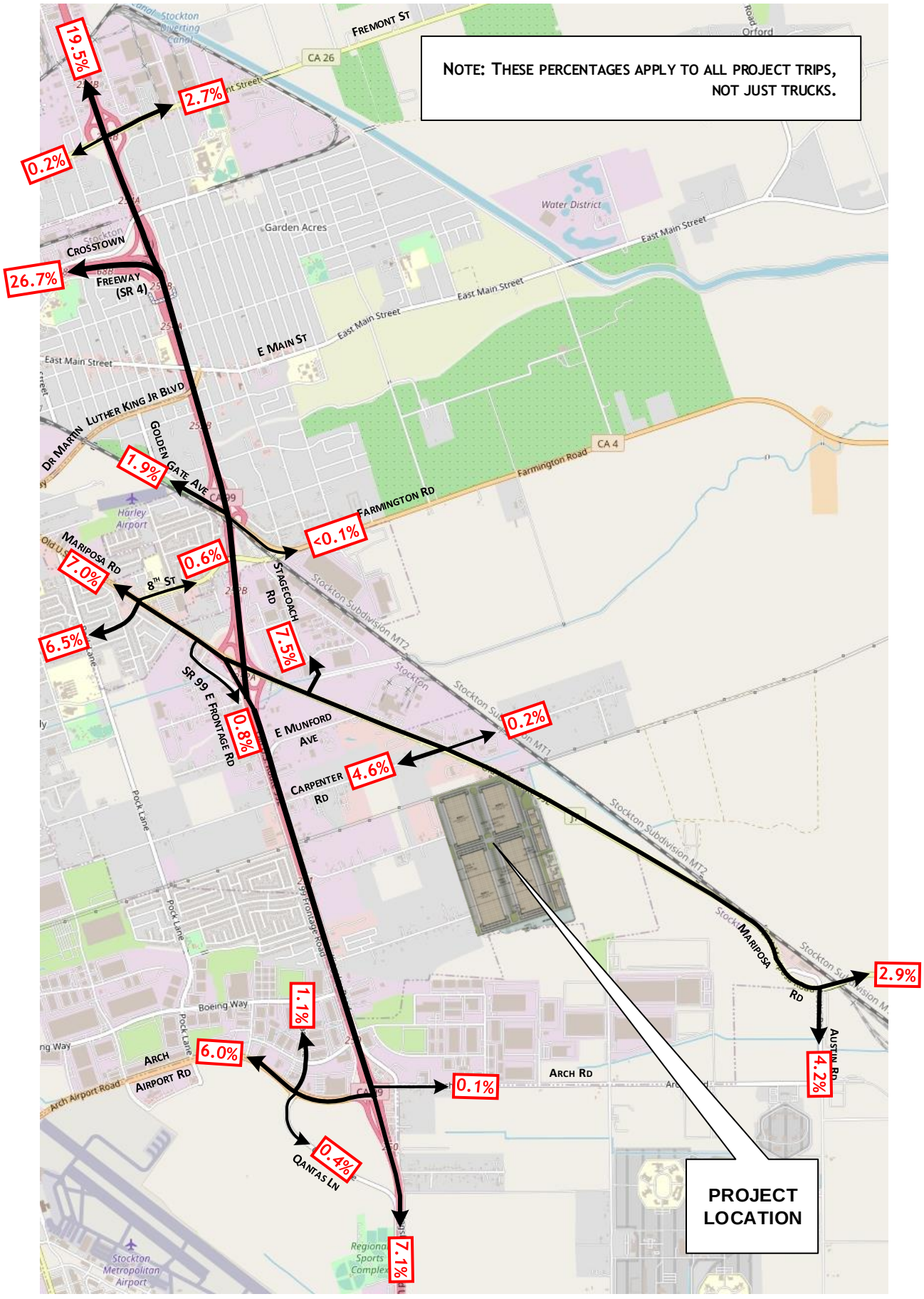
Land Use	Quantity	Trips Generated						
		Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Light Industrial	3,616.87 Thousand Square Feet	12,370	398	253	651	289	506	796

Source: McDowell pers. comm. and City of Stockton 2014.
Total may not equal the sum of components due to rounding.

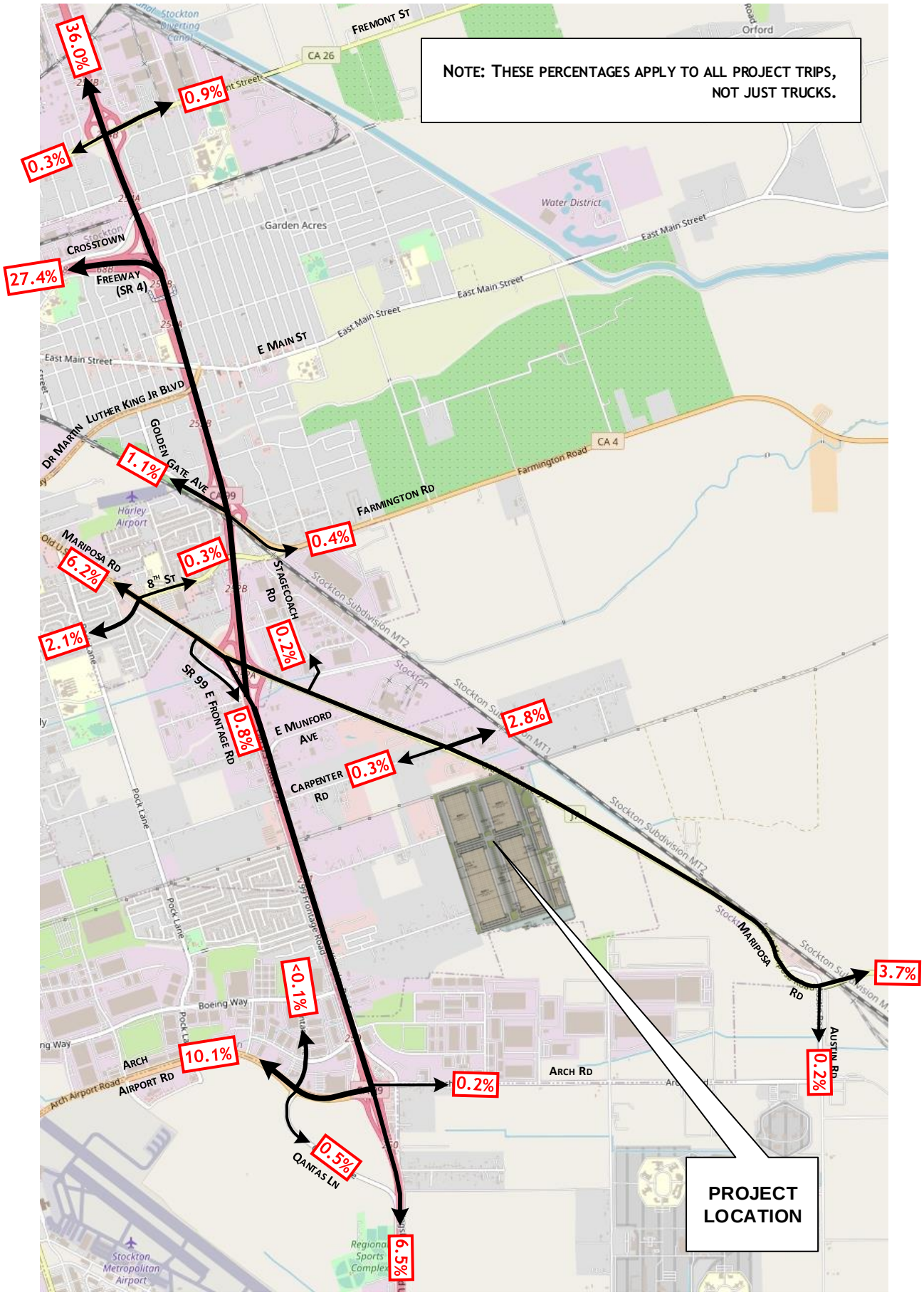
Table 16. Mariposa Industrial Park Project Trip Distribution Percentages

Direction of Travel	Existing Plus Approved Projects Background	Cumulative Background
SR 99 North of Fremont Street	19.5	36.0
Fremont Street West of SR 99	0.2	0.3
Fremont Street East of SR 99	2.7	0.9
Crosstown Freeway West of SR 99	26.7	27.4
Golden Gate Avenue West of SR 99	1.9	1.1
Golden Gate Avenue East of SR 99	- -	0.4
8th Street West of Mariposa Road	6.5	2.1
Mariposa Rd Northwest of 8th St/Farmington Rd	7.0	6.2
Farmington Road East of Mariposa Road	0.6	0.3
SR 99 West Frontage Road South of Mariposa Road	0.8	0.8
Stagecoach Road North of Mariposa Road	7.5	0.2
Carpenter Road West of Mariposa Road	4.6	0.3
Carpenter Road East of Mariposa Road	0.2	2.8
Mariposa Road Southeast of Austin Road	2.9	3.7
Austin Road South of Mariposa Road	4.2	0.2
Arch Road West of Qantas Lane	6.0	10.1
Qantas Lane North of Arch Road	1.1	- -
Qantas Lane South of Arch Road	0.4	0.5
Arch Road East of SR 99	0.1	0.2
SR 99 South of Arch Road	7.1	6.5
TOTAL	100.0	100.0

Source: City of Stockton General Plan Travel Demand Model Select Link Analysis.
Note: Dashes ("- -") indicate value is less than one-tenth percent.



EXISTING PLUS APPROVED PROJECTS
BACKGROUND TRIP DISTRIBUTION PERCENTAGES



CUMULATIVE BACKGROUND
TRIP DISTRIBUTION PERCENTAGES

The City of Stockton travel demand model (City of Stockton 2004 and City of Stockton 2018b) was used to estimate trip distribution percentages. The travel demand model is considered to be a valid source for the trip distribution percentages because it directly addresses:

- the location of destinations of project-related trips,
- the magnitude of land uses that would attract project-related trips, and
- the quality of access to the destinations via the roadway network.

This traffic impact study includes analysis of scenarios based on two different background development conditions:

- Existing Plus Approved Projects (EPAP), and
- 2040 Cumulative Conditions.

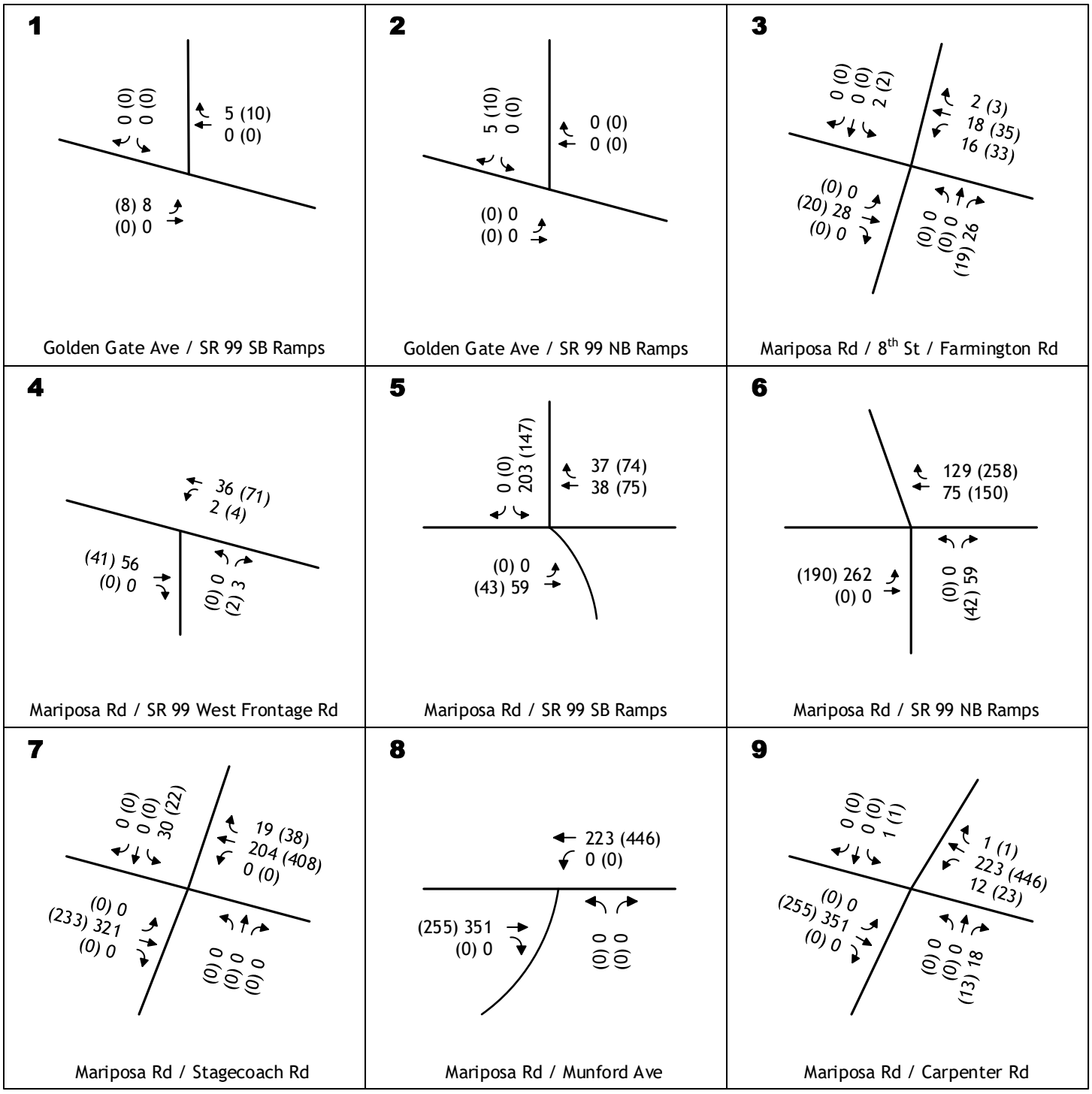
The travel demand model for each of these two scenarios was used to estimate trip distribution percentages. Background (non-project) land uses are different in each of the two travel demand models. The different land uses result in different geographic distributions of travel. As a result, the trip distribution percentages are different for each of the two background development conditions. **Table 16**, **Figure 17,** and **Figure 18** present the trip distribution percentages for each of the two background development scenarios.

A "select link" analysis was conducted using each of the two travel demand models to determine the geographic distribution of project-related travel. The select link analysis identifies vehicle trips associated with the proposed project site, and identifies the direction of travel to and from the project site.

Raw, pre-adjustment, traffic model results used in the development of trip distribution percentages are presented in the technical appendix.

TRIP ASSIGNMENT

Traffic that would be generated by the proposed project was geographically distributed over the study area roadway network using the trip distribution percentages shown in **Table 16**, **Figure 17,** and **Figure 18**. **Figure 19** and **Figure 20** display the project-related-only traffic volumes for each study intersection in the a.m. peak hour and p.m. peak hour. **Figure 21** and **Figure 22** display the resulting EPAP Plus Project traffic volumes anticipated for each study intersection in the peak hours. The a.m. peak hour and p.m. peak hour freeway ramp junction traffic volumes are presented in **Figure 23** and **Figure 24**.



PROJECTED-RELATED INTERSECTION TRAFFIC VOLUMES

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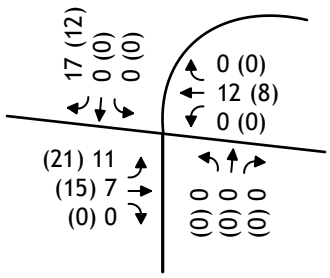
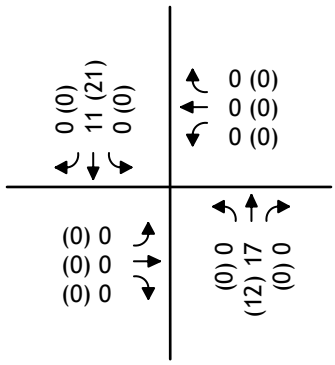
figure 19

10



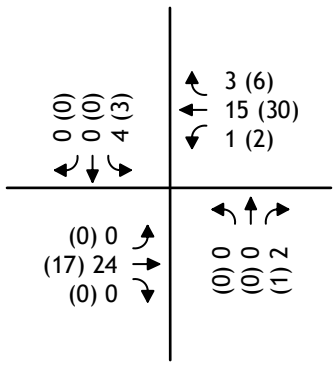
Austin Rd / Mariposa Rd

11



Austin Rd/ Arch Rd

12



Arch Airport Rd/ Qantas Ln

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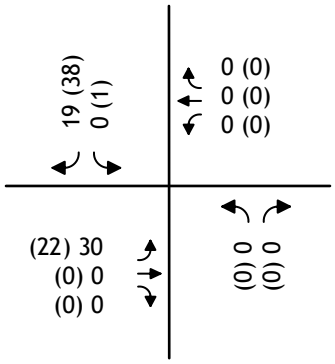
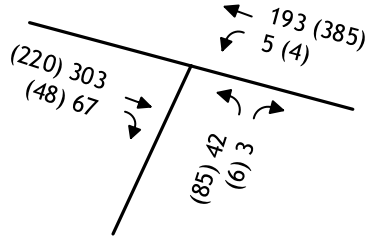


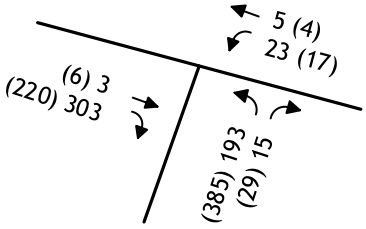
Arch Airport Rd/ SR 99

14



Mariposa Rd / Northwest Project Dwy

15



Mariposa Rd / Southeast Project Dwy

N.T.S.

Legend

XX AM Peak Hour Volume

(XX) PM Peak Hour Volume

PROJECTED-RELATED INTERSECTION TRAFFIC VOLUMES

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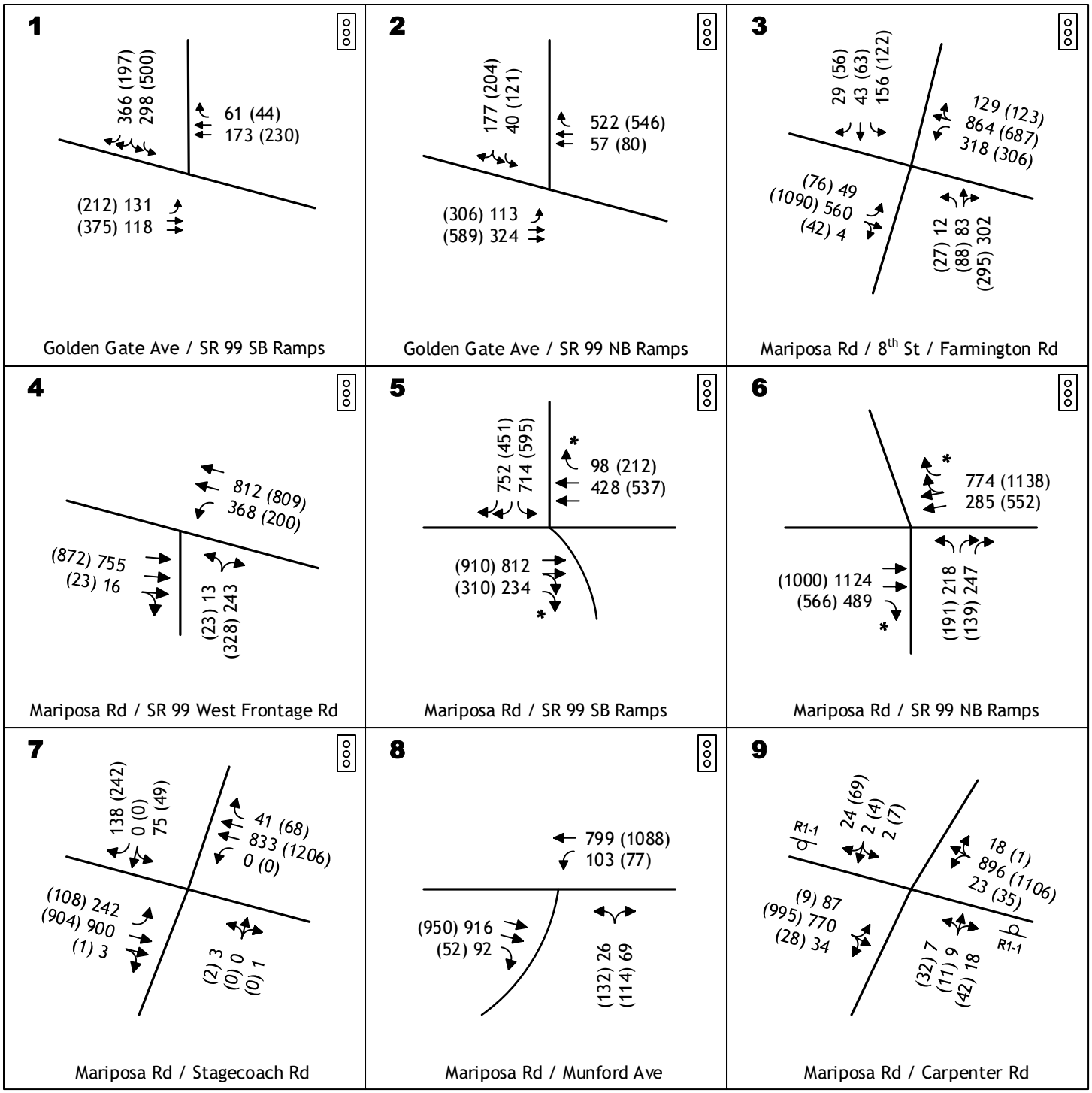
figure 20



Legend

XX	AM Peak Hour Volume
(XX)	PM Peak Hour Volume
R1-1	Stop Sign
	Signalized Intersection
CWLTL	Center Two-Way Left Turn Lane
*	"Free" Right Turn

NORTH

N.T.S.

EPAP PLUS PROJECT
INTERSECTION TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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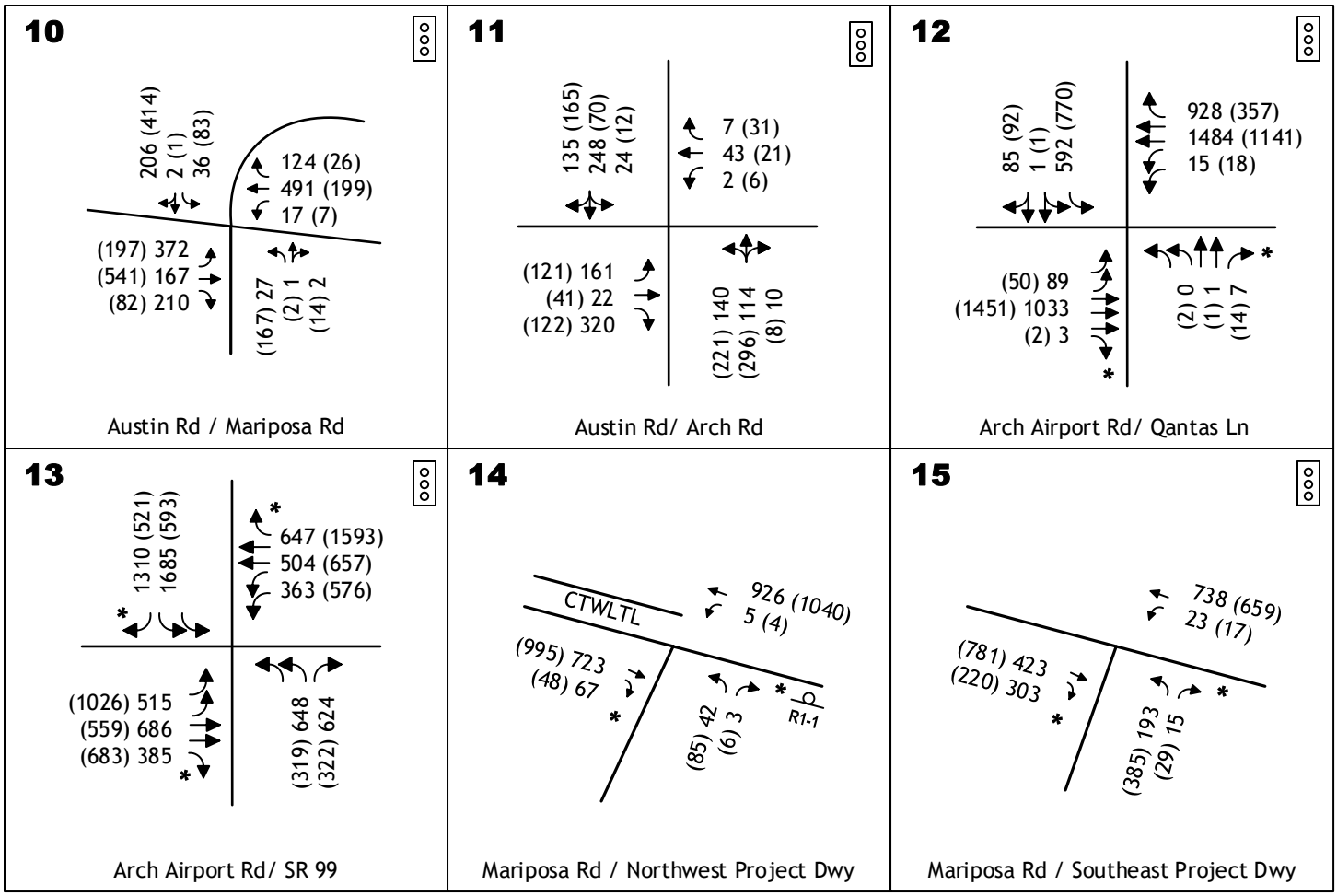
0780-18 RA 7/9/2021

figure 21



Legend

XX	AM Peak Hour Volume
(XX)	PM Peak Hour Volume
R1-1	Stop Sign
	Signalized Intersection
CWLTL	Center Two-Way Left Turn Lane
*	"Free" Right Turn

NORTH

N.T.S.

EPAP PLUS PROJECT
INTERSECTION TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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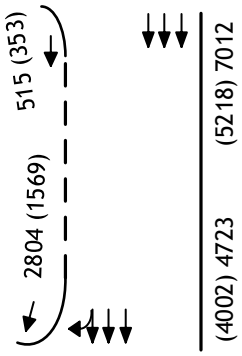
0780-18 RA 7/9/2021

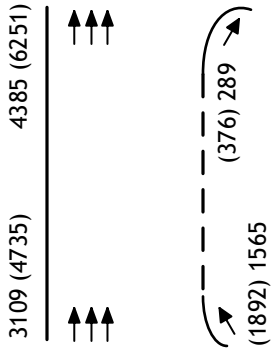
figure 22

201



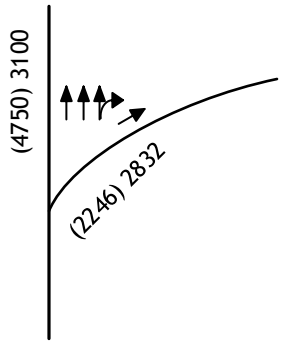
SR 99 Southbound Weave Area
Between Crosstown Freeway And Fremont St

202



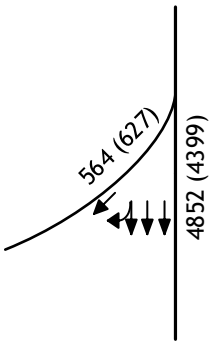
SR 99 Northbound Weave Area
Between Crosstown Freeway And Fremont St

203



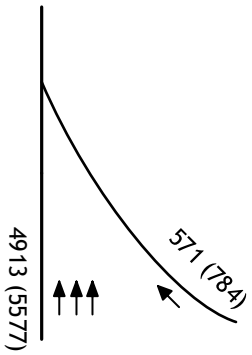
SR 99 Northbound
At Crosstown Freeway Off-Ramp Diverge

204



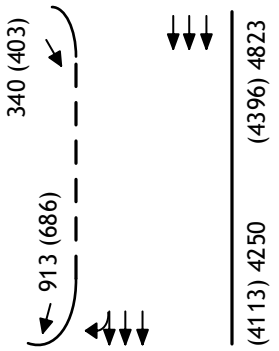
SR 99 at Golden Gate Avenue
Southbound Off-Ramp Diverge

205



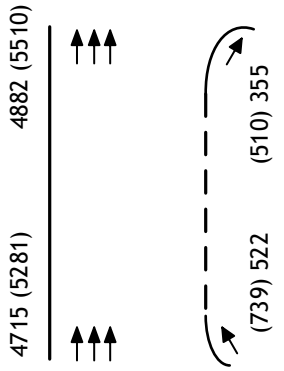
SR 99 at Golden Gate Avenue
Northbound On-Ramp Merge

206



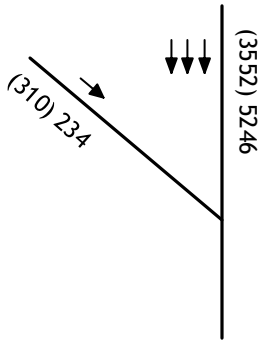
SR 99 Southbound Weave Area
Between Mariposa Rd and Golden Gate Ave

207



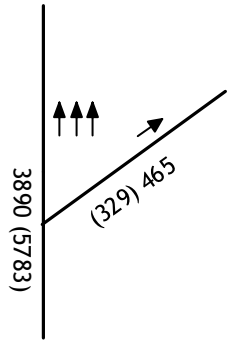
SR 99 Northbound Weave Area
Between Mariposa Rd and Golden Gate Ave

208



SR 99 at Mariposa Rd
Southbound On-Ramp (Slip) Merge

209



SR 99 at Mariposa Rd
Northbound Off-Ramp Diverge

Legend

XX AM Peak Hour Volume

(XX) PM Peak Hour Volume

Weave Area Auxillary Lane

Number of Arrows Indicate Number of Lanes

NORTH

N.T.S.

EPAP PLUS PROJECT FREEWAY RAMP MERGE, DIVERGE, AND WEAVE AREA TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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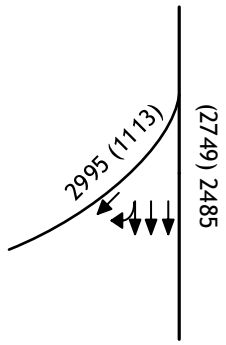
Transportation Engineers

0780-18 RA 7/9/2021

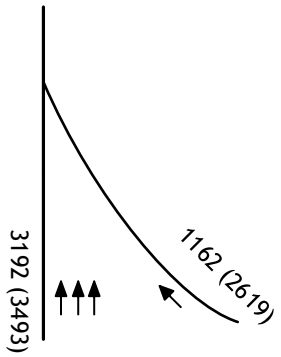
figure 23

210



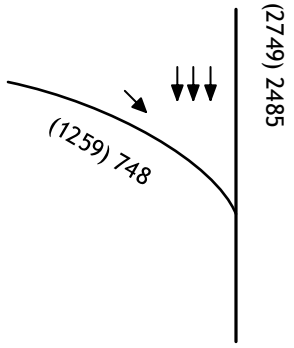
SR 99 at Arch-Airport Rd
Southbound Off-Ramp Diverge

211



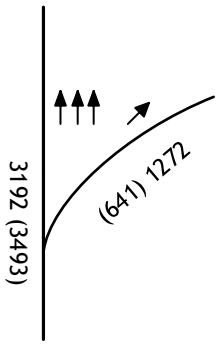
SR 99 at Arch-Airport Rd
Northbound On-Ramp Merge

212



SR 99 Northbound
At Crosstown Freeway Off-Ramp Diverge

213



SR 99 at Arch-Airport Rd
Northbound Off-Ramp Diverge

Legend

XX AM Peak Hour Volume
(XX) PM Peak Hour Volume
Weave Area Auxillary Lane
Number of Arrows Indicate Number of Lanes

NORTH
N.T.S.

EPAP PLUS PROJECT FREEWAY RAMP MERGE, DIVERGE, AND WEAVE AREA TRAFFIC VOLUMES AND LANE CONFIGURATIONS

KD Anderson & Associates, Inc.
Transportation Engineers

0780-18 RA 7/9/2021

figure 24

ROADWAY IMPROVEMENTS

Implementation of the Mariposa Industrial Park project would result in roadway improvements needed to provide access to the project site. Improvements to project site access points are shown in the proposed project site plan presented in **Figure 2** and project site frontage striping plan presented in **Figure 3**. These improvements have been previously described in more detail in the *Project Description* section of this traffic impact study.

Figure 21 and **Figure 22** display the resulting EPAP Plus Project intersection lane geometrics for each study intersection. The resulting number of travel lanes assumed for study roadway segments and daily traffic volumes are shown in **Table 17.**

INTERSECTION LEVELS OF SERVICE

Table 18 presents the a.m. peak hour and p.m. peak hour LOS at each study intersection under EPAP Plus Project conditions. The worksheets presenting the calculation of LOS are included in the technical appendix.

Under EPAP Plus Project conditions, LOS at 11 of the 15 study intersections would be at acceptable LOS D or better during both the a.m. peak hour and the p.m. peak hour. No improvements would be needed at these 11 intersections to achieve acceptable LOS. The following describes the four study intersections that would operate at unacceptable LOS under EPAP Plus Project conditions.

3. Mariposa Road & 8th Street/Farmington Road

Under EPAP Plus Project conditions, this intersection would operate at LOS F with 109.3 seconds of delay during the a.m. peak hour, and LOS F with 145.8 seconds of delay during the p.m. peak hour. LOS F is considered unacceptable. Compared to EPAP No Project Conditions, the project-related increase in delay would be greater than five seconds during either the a.m. peak hour or the p.m. peak hour. Therefore, based on criteria presented in the *General Plan Policy Consistency Criteria* section of this traffic impact study, the project-related inconsistency with General Plan policies is considered significant. The following improvement is recommended to improve operating conditions to acceptable LOS and reduce the project-related inconsistency with General Plan policies to a less than significant level:

- Split the northeastbound combined through/right-turn lane into an exclusive northeastbound through lane and a "free" northeastbound-to-southeastbound right-turn lane.

The above improvement would be consistent with the recommended improvement (described below) for Roadway Segment 105, Mariposa Road Between SR 99 and 8th Street/Farmington Road, to widen the portions of this roadway segment which are one lane in each direction to two lanes in each direction. The added southeastbound departure lane on Mariposa Road would serve vehicles departing the "free" northeastbound-to-southeastbound right-turn lane at this intersection.

The existing northeastbound combined through/right-turn lane is approximately 23 to 24 feet wide and the single southwestbound departure lane is approximately 21 to 22 feet wide. As a result, the existing pavement width on the southwest leg of this intersection is considered wide enough to accommodate the above improvement.

Table 17. Roadway Segment Level of Service - Existing Plus Approved Projects (EPAP) Plus Project Conditions

Roadway Segment	Number of Lanes	Daily Capacity	Daily Volume	V/C Ratio	Level of Service
101. SR 99 - North of Crosstown Freeway (SR 4)	8	172,800	113,717	0.66	C
102. Crosstown Freeway - West of SR 99	8	172,800	120,429	0.70	C
103. SR 99 - Between Crosstown Fwy and Golden Gate Avenue	8	172,800	126,842	0.73	C
104. SR 99 - Between Golden Gate Ave and Mariposa Rd	8	172,800	125,851	0.73	C
105. Mariposa Road - Between SR 99 and 8th St./Farmington Rd	2	17,300	27,296	1.58	F
106. Mariposa Road - Between Carpenter Road and SR 99	4	38,200	26,540	0.69	D
107. Mariposa Road - Between the Project Site and Carpenter Road	4	38,200	26,777	0.70	D
108. Mariposa Road - Southeast of the Project Site	4	38,200	16,163	0.42	A
109. Mariposa Road - East of Austin Road	4	38,200	11,397	0.30	A
110. SR 99 - Between Mariposa Road and Arch-Airport Road	6	129,600	97,705	0.75	D
111. Arch-Airport Road - Between Qantas Lane and SR 99	6	59,300	51,815	0.87	E
112. SR 99 - South of Arch-Airport Road	6	129,600	85,955	0.66	C

Notes: "SR" = State Route. "V/C Ratio" = volume-to-capacity ratio.

Table 18. Intersection Level of Service -
Existing Plus Approved Projects (EPAP) Plus Project Conditions

	Study Intersections	Inters. Control	Signal Warrant Met?	AM Peak LOS	AM Peak Delay	PM Peak LOS	PM Peak Delay
1	Golden Gate Avenue & SR 99 Southbound Ramps	Signal		B	14.2	B	16.0
2	Golden Gate Avenue & SR 99 Northbound Ramps	Signal		B	15.8	C	23.9
3	Mariposa Road & 8th Street/Farmington Road	Signal		F	109.3	F	145.8
4	Mariposa Road & SR 99 West Frontage Road	Signal		B	14.2	B	14.5
5	Mariposa Road & SR 99 Southbound Ramps	Signal		B	18.4	B	15.4
6	Mariposa Road & SR 99 Northbound Ramps	Signal		B	10.6	B	10.4
7	Mariposa Road & Stagecoach Road	Signal		B	18.5	B	18.2
8	Mariposa Road & Munford Avenue	Signal		B	11.5	C	23.9
9	Mariposa Road & Carpenter Road	Unsig	Yes	A	3.7	F	63.9
10	Mariposa Road & Austin Road	Signal		C	35.0	D	40.2
11	Arch Road & Austin Road	Signal		D	45.2	D	40.2
12	Arch-Airport Road & Qantas Lane	Signal		E	61.7	C	28.4
13	Arch Road & SR 99	Signal		F	194.4	E	73.6
14	Mariposa Road & Northwest Project Driveway	Unsig	No	A	0.5	A	1.2
15	Mariposa Road & Southeast Project Driveway	Signal		B	13.8	C	23.1

Notes: LOS = Level of Service. "Inters. Control" = Type of intersection control.
"Signal" = Signalized light control. "Unsig" = Unsignalized stop-sign control.
Delay is measured in seconds per vehicle.
Per City of Stockton guidelines, intersection average delay is reported for all intersections, including unsignalized intersections.

As shown in **Table 19**, implementation of the above recommended improvement would improve traffic operations to LOS D with 40.4 seconds of delay in the a.m. peak hour and LOS E with 73.2 seconds of delay in the p.m. peak hour. As described in the *General Plan Policy Consistency Criteria* section of this traffic impact study, LOS D and E at this intersection are considered acceptable.

This recommended improvement is the same as the improvement recommended at this intersection for EPAP No Project conditions.

9. Mariposa Road & Carpenter Road

Under EPAP Plus Project conditions, this intersection would operate at LOS A with 3.7 seconds of delay during the a.m. peak hour, and LOS F with 63.9 seconds of delay during the p.m. peak hour. LOS F is considered unacceptable. Compared to EPAP No Project Conditions, the project-related increase in delay would be greater than five seconds during either the a.m. peak hour or the p.m. peak hour. Therefore, based on criteria presented in the *General Plan Policy Consistency Criteria* section of this traffic impact study, the project-related inconsistency with General Plan policies is considered significant. The following improvement is recommended to improve operating conditions to acceptable LOS and reduce the project-related inconsistency with General Plan policies to a less than significant level:

- Widen the northeastbound Carpenter Road approach. The approach is currently a single-lane approach. The approach should be widened to include an exclusive northeastbound-to northwestbound left-turn lane, and a combined through/right-turn lane.

As shown in **Table 19**, implementation of the above recommended improvement would improve traffic operations to LOS A with 2.9 seconds of delay in the a.m. peak hour and LOS D with 32.7 seconds of delay in the p.m. peak hour. LOS A and D are considered acceptable.

12. Arch-Airport Road & Qantas Lane

Under EPAP Plus Project conditions, this intersection would operate at LOS E with 61.7 seconds of delay during the a.m. peak hour, and LOS C with 28.4 seconds of delay during the p.m. peak hour. LOS E is considered unacceptable. However, LOS would also be unacceptable under EPAP No Project conditions, and the project-related change in delay would not be greater than a five second increase. Therefore, based on criteria presented in the *General Plan Policy Consistency Criteria* section of this traffic impact study, the project-related inconsistency with General Plan policies is considered less than significant and no improvements are recommended.

Table 19. Intersection Level of Service -
Existing Plus Approved Projects (EPAP) Plus Project Conditions
With Recommended Improvements

Study Intersections	Inters. Control	Signal Warrant Met?	AM Peak LOS	AM Peak Delay	PM Peak LOS	PM Peak Delay
3 Mariposa Road & 8th Street/Farmington Road	Signal		D	40.4	E	73.2
9 Mariposa Road & Carpenter Road	Unsig	No	A	2.9	D	32.7

Notes: LOS = Level of Service. "Inters. Control" = Type of intersection control.
"Signal" = Signalized light control. "Unsig" = Unsignalized stop-sign control.
Delay is measured in seconds per vehicle.
Per City of Stockton guidelines, intersection average delay is reported for all intersections, including unsignalized intersections.

13. Arch Road & SR 99

Under EPAP Plus Project conditions, this intersection would operate at LOS F with 194.4 seconds of delay during the a.m. peak hour, and LOS E with 73.6 seconds of delay during the p.m. peak hour. LOS E and F are considered unacceptable. However, LOS would also be unacceptable under EPAP No Project conditions, and the project-related change in delay would not be greater than a five second increase. Therefore, based on criteria presented in the *General Plan Policy Consistency Criteria* section of this traffic impact study, the project-related inconsistency with General Plan policies is considered less than significant and no improvements are recommended.

ROADWAY SEGMENT LEVELS OF SERVICE

Table 17 presents a summary of LOS on the 12 study roadway segments under EPAP Plus Project conditions. 10 of the roadway segments would operate at acceptable LOS D or better. No improvements would be needed on these 10 roadway segments to achieve acceptable LOS. The following two roadway segments would operate at unacceptable LOS.

105. Mariposa Road Between SR 99 and 8th Street/Farmington Road

Under EPAP Plus Project conditions, this roadway segment would operate at LOS F. LOS F is considered unacceptable. Compared to EPAP No Project Conditions, the project-related increase in volume would be greater than five percent. Therefore, based on criteria presented in the

General Plan Policy Consistency Criteria section of this traffic impact study, the project-related inconsistency with General Plan policies is considered significant. The following improvement is recommended to improve operating conditions to acceptable LOS and reduce the project-related inconsistency with General Plan policies to a less than significant level:

- Widen the portions of this roadway segment which are one lane in each direction to two lanes in each direction.

As shown in **Table 20**, implementation of the above recommended improvement would improve traffic operations to LOS D. LOS D is considered acceptable.

This improvement is also recommended under Existing Conditions and the EPAP No Project scenario.

Table 20. Roadway Segment Level of Service -
Existing Plus Approved Projects (EPAP) Plus Project Conditions
With Recommended Improvements

Roadway Segment	Number of Lanes	Daily Capacity	Daily Volume	V/C Ratio	Level of Service
105. Mariposa Road - Between SR 99 and 8th St./Farmington Rd	4	38,200	27,296	0.71	D

Notes: "SR" = State Route. "V/C Ratio" = volume-to-capacity ratio.

111. Arch-Airport Road, Between Qantas Lane and SR 99

Under EPAP Plus Project conditions, this roadway segment would operate at LOS E. LOS E is considered unacceptable. However, LOS would also be unacceptable under EPAP No Project conditions, and the project-related change in traffic volume would not be greater than a five percent increase. Therefore, based on criteria presented in the *General Plan Policy Consistency Criteria* section of this traffic impact study, the project-related inconsistency with General Plan policies is considered less than significant and no improvements are recommended.

RAMP JUNCTION LEVELS OF SERVICE

Figure 23 and **Figure 24** present the a.m. peak hour and p.m. peak hour traffic volumes at the ramp junctions under EPAP Plus Project conditions. **Table 21** presents the a.m. peak hour and p.m. peak hour LOS at each study ramp junction under EPAP Plus Project conditions. The worksheets presenting the calculation of LOS are included in the technical appendix.

Under EPAP Plus Project conditions, LOS at 10 of the 13 study ramp junctions would be at acceptable LOS D or better during both the a.m. peak hour and the p.m. peak hour. No improvements would be needed on these 10 ramp junctions to achieve acceptable LOS. The following are the three ramp junctions that would experience unacceptable LOS.

201. SR 99 Southbound Weave Area Between Fremont Street and Crosstown Freeway

Under EPAP Plus Project conditions, this ramp junction would operate at LOS F during the a.m. peak hour, and LOS C during the p.m. peak hour. LOS F is considered unacceptable. However, LOS would also be unacceptable under EPAP No Project conditions, and the project-related change in freeway and ramp volumes would not be greater than a five percent increase. Therefore, based on criteria presented in the *General Plan Policy Consistency Criteria* section of this traffic impact study, the project-related inconsistency with General Plan policies is considered less than significant and no improvements are recommended.

205. SR 99 at Golden Gate Avenue Northbound On-Ramp Merge

Under EPAP Plus Project conditions, this ramp junction would operate at LOS C during the a.m. peak hour, and LOS F during the p.m. peak hour. LOS F is considered unacceptable. However, LOS would also be unacceptable under EPAP No Project conditions, and the project-related change in freeway and ramp volumes would not be greater than a five percent increase. Therefore, based on criteria presented in the *General Plan Policy Consistency Criteria* section of this traffic impact study, the project-related inconsistency with General Plan policies is considered less than significant and no improvements are recommended.

211. SR 99 at Arch-Airport Road Northbound On-Ramp Merge

Under EPAP Plus Project conditions, this ramp junction would operate at LOS C during the a.m. peak hour, and LOS E during the p.m. peak hour. LOS E is considered unacceptable. However, LOS would also be unacceptable under EPAP No Project conditions, and the project-related change in freeway and ramp volumes would not be greater than a five percent increase. Therefore, based on criteria presented in the *General Plan Policy Consistency Criteria* section of this traffic impact study, the project-related inconsistency with General Plan policies is considered less than significant and no improvements are recommended.

Table 21. State Route 99 Ramp Merge, Diverge, and Weave Level of Service - Existing Plus Approved Projects (EPAP) Plus Project Conditions

	Ramp Junction	AM Peak Hour Freeway Volume	AM Peak Hour Ramp Volume	AM Peak Hour Density	AM Peak Hour LOS	PM Peak Hour Freeway Volume	PM Peak Hour Ramp Volume	PM Peak Hour Density	PM Peak Hour LOS
201	SB Weave Between	7,012	515	> Capacity	F	5,218	353	26.9	C
	Fremont St & Crosstown Fwy	4,723	2,804			4,002	1,569		
202	NB Weave Between	4,385	289	22.2	C	6,251	376	32.7	D
	Crosstown Fwy & Fremont St	3,109	1,565			4,735	1,892		
203	NB at Crosstown Fwy Off-Ramp	3,100	2,832	< 10	A	4,750	2,246	< 10	A
204	Golden Gate Ave SB Off-Ramp	4,852	564	< 10	A	4,399	627	< 10	A
205	Golden Gate Ave NB On-Ramp	4,913	571	27.1	C	5,577	784	33.0	F
206	SB Weave Between	4,823	340	24.8	C	4,396	403	22.9	C
	Golden Gate Ave & Mariposa Rd	4,250	913			4,113	686		
207	NB Weave Between	4,882	355	25.2	C	5,510	510	29.4	D
	Mariposa Rd & Golden Gate Ave	4,715	522			5,281	739		
208	Mariposa Rd SB On-Ramp (Slip)	5,246	234	26.7	C	3,552	310	18.2	B
209	Mariposa Rd NB Off-Ramp	3,890	465	24.8	C	5,783	329	33.3	D
210	Arch-Airport Rd SB Off-Ramp	2,485	2,995	< 10	A	2,749	1,113	< 10	A
211	Arch-Airport Rd NB On-Ramp	3,192	1,162	22.2	C	3,493	2,619	38.0	E
212	Arch-Airport Rd SB On-Ramp	2,485	748	16.6	B	2,749	1,259	22.2	C
213	Arch-Airport Rd NB Off-Ramp	3,192	1,272	23.0	C	3,493	641	23.1	C

Notes: "LOS" = Level of Service. "NB" = Northbound. "SB" = Southbound.
Density is expressed in passenger cars per mile per lane. "> Capacity" = volume-to-capacity ratio greater than 1.0.
For weave areas, north freeway and ramp volumes are listed first and south volumes are listed second.

INCREASE IN DEMAND FOR TRANSIT

Implementation of the proposed Mariposa Industrial Park project would result in an increase in demand for public transit service. Currently, there is limited direct public transit service to the vicinity of the project site, and the development of urban uses would result in an increase in demand. The frequency and proximity of future transit service is not known at this time and, as a result, demand for transit cannot be quantified. However, it is expected that SJRTD can accommodate the additional passengers the project would generate. This is considered a less-than-significant impact. No mitigation measures are required

INCREASE IN DEMAND FOR BICYCLE AND PEDESTRIAN FACILITIES

Implementation of the Mariposa Industrial Park project would result in an increase in demand for bicycle and pedestrian facilities. As noted in the *Project Description* section of this traffic impact study, the proposed project includes sidewalks along the project site frontage of Mariposa Road. Because sidewalks are not present along the Mariposa Road frontage of nearby properties, the sidewalks along the Mariposa Industrial Park project site frontage would be discontinuous in the near-term. In the longer-term, sidewalks along the project site frontage would incrementally improve the safety and convenience of bicycle and pedestrian travel along Mariposa Road. The City General Plan includes widening of Mariposa Road to four lanes in the future, and the Mariposa Industrial Park project site frontage improvements would contribute to a more continuous system of bicycle and pedestrian improvements along Mariposa Road. Therefore, the increase in demand for facilities is considered a less-than-significant impact. No mitigation measures would be required.

CUMULATIVE NO PROJECT CONDITIONS

The Cumulative No Project condition represents a long-term future background condition. Development of approved and planned land uses and roadway improvements are assumed in this condition. The Cumulative No Project condition, therefore, serves as the baseline condition used to assess the significance of long-term project-related traffic effects.

The Cumulative No Project condition does not include development of the Mariposa Industrial Park project as proposed. Consistent with the approach described in the *City of Stockton Transportation Impact Analysis Guidelines* (City of Stockton 2003), this scenario serves as baseline condition for determining project-related impacts, and the traffic analysis of this condition assumes land uses on the project site consistent with the City of Stockton General Plan (City of Stockton 2018a).

TRAFFIC VOLUME FORECASTS

As previously described in the *Travel Forecasting* section of this traffic impact study, the City of Stockton Travel Demand Model (City of Stockton 2018b) was used to develop forecasts of background increases in traffic volumes under Cumulative No Project conditions. The increases in traffic volumes reflect development of land uses consistent with approved land use designations. The model was modified in the vicinity of the project site to add detail to the model and more accurately represent how land uses are provided access to the roadway network. Minor changes were also made to land uses in the model to reflect existing and planned development.

Application of the methods described in the *Travel Forecasting* section results in the daily traffic volumes presented in **Table 22**.

ROADWAY IMPROVEMENTS

The analysis of Cumulative No Project conditions assumes roadway improvements consistent with the long-term future context. These include improvements from the City of Stockton General Plan (City of Stockton 2018b), and the *Draft Environmental Impact Report - Mariposa Lakes Specific Plan - State Clearinghouse #2006022035* (City of Stockton 2007). The improvements include:

- widening of Mariposa Road northwest of Carpenter Road to six lanes,
- widening of Mariposa Road southeast of Carpenter Road to four lanes, and
- widening of SR 99 from north of the Crosstown Freeway to south of Arch Road to eight lanes.

The resulting number of travel lanes assumed for study roadway segments are shown in **Table 22**.

Table 22. Roadway Segment Level of Service - Cumulative No Project Conditions

Roadway Segment	Number of Lanes	Daily Capacity	Daily Volume	V/C Ratio	Level of Service
101. SR 99 - North of Crosstown Freeway (SR 4)	8	172,800	144,268	0.83	D
102. Crosstown Freeway - West of SR 99	8	172,800	131,917	0.76	D
103. SR 99 - Between Crosstown Fwy and Golden Gate Avenue	8	172,800	139,739	0.81	D
104. SR 99 - Between Golden Gate Ave and Mariposa Rd	8	172,800	168,962	0.98	E
105. Mariposa Road - Between SR 99 and 8th St./Farmington Rd	6	59,300	36,756	0.62	C
106. Mariposa Road - Between Carpenter Road and SR 99	6	59,300	32,512	0.55	C
107. Mariposa Road - Between the Project Site and Carpenter Road	4	38,200	23,483	0.61	C
108. Mariposa Road - Southeast of the Project Site	4	38,200	23,483	0.61	C
109. Mariposa Road - East of Austin Road	4	38,200	13,259	0.35	A
110. SR 99 - Between Mariposa Road and Arch-Airport Road	8	172,800	115,758	0.67	C
111. Arch-Airport Road - Between Qantas Lane and SR 99	6	59,300	67,860	1.14	F
112. SR 99 - South of Arch-Airport Road	8	172,800	106,202	0.61	C

Notes: "SR" = State Route. "V/C Ratio" = volume-to-capacity ratio.

ROADWAY SEGMENT LEVELS OF SERVICE

Table 22 presents a summary of LOS on the 12 study roadway segments under Cumulative No Project conditions. Ten of the roadway segments would operate at acceptable LOS D or better. No improvements are needed on these 10 roadway segments to achieve acceptable LOS. The following two roadway segments would operate at unacceptable LOS.

104. SR 99 Between Golden Gate Avenue and Mariposa Road

Under Cumulative No Project condition, this roadway segment would operate at LOS E. LOS E is considered unacceptable. This roadway segment is already assumed to be eight lanes wide under Cumulative conditions. In the *Transportation Concept Report State Route 99* (California Department of Transportation 2017), Caltrans describes the eight-lane width as the conceptual facility width, and this is considered to be the maximum feasible size in this traffic impact study. Therefore, improvements are not recommended.

111. Arch-Airport Road, Between Qantas Lane and SR 99

Under Cumulative No Project conditions, this roadway segment would operate at LOS F. LOS F is considered unacceptable. The following improvement is recommended to improve LOS on this roadway segment:

- Widen this roadway segment from six lanes to eight lanes.

Implementing this recommended improvement would result in this roadway segment operating at LOS E. This LOS is considered unacceptable. However, eight lanes is considered to be the maximum feasible width for this roadway segment. A summary of LOS with recommended improvements is presented in **Table 23**.

Table 23. Roadway Segment Level of Service -
Cumulative No Project Conditions With Recommended Improvements

Roadway Segment	Number of Lanes	Daily Capacity	Daily Volume	V/C Ratio	Level of Service
111. Arch-Airport Road - Between Qantas Lane and SR 99	8	78,400	67,860	0.87	E

Notes: "SR" = State Route. "V/C Ratio" = volume-to-capacity ratio.

CUMULATIVE PLUS PROJECT IMPACTS

The analysis of Cumulative Plus Project conditions describes long-term traffic operations in the year 2040 assuming development of the proposed project. Comparing traffic operation under this condition to traffic operations under Cumulative No Project conditions allows an identification of the long-term project-related effects of the proposed project.

The development of the Mariposa Industrial Park project would result in vehicle traffic to and from the project site. Methods used to estimate project-related travel have been previously described in the *Existing Plus Approved Projects Plus Mariposa Industrial Park Project Impacts* section of this traffic impact study. **Table 24** displays the resulting Cumulative Plus Project roadway segment daily traffic volumes.

Development of forecasts of future year background traffic volumes has been previously described in the *Cumulative No Project Conditions* section of this traffic impact study.

Project-related roadway improvements and future year background roadway improvements assumed in this analysis have been previously described in the *Existing Plus Approved Projects Plus Mariposa Industrial Park Project Impacts* and the *Cumulative No Project Conditions* sections of this traffic impact study.

ROADWAY SEGMENT LEVELS OF SERVICE

Table 24 presents a summary of LOS on the 12 study roadway segments under Cumulative Plus Project conditions. Nine of the 12 roadway segments would operate at acceptable LOS D or better. No improvements are needed on these nine roadway segments to achieve acceptable LOS. The following three roadway segments would operate at unacceptable LOS.

104. SR 99 Between Golden Gate Avenue and Mariposa Road

Under Cumulative Plus Project conditions, this roadway segment would operate at LOS F. LOS F is considered unacceptable. However, LOS would also be unacceptable under Cumulative No Project conditions, and the project-related change in traffic volume would not be greater than a five percent increase. Therefore, based on criteria presented in the *General Plan Policy Consistency Criteria* section of this traffic impact study, the project-related inconsistency with General Plan policies is considered less than significant and no improvements are recommended.

Table 24. Roadway Segment Level of Service - Cumulative Plus Project Conditions

Roadway Segment	Number of Lanes	Daily Capacity	Daily Volume	V/C Ratio	Level of Service
101. SR 99 - North of Crosstown Freeway (SR 4)	8	172,800	148,870	0.86	D
102. Crosstown Freeway - West of SR 99	8	172,800	135,307	0.78	D
103. SR 99 - Between Crosstown Fwy and Golden Gate Avenue	8	172,800	147,731	0.85	D
104. SR 99 - Between Golden Gate Ave and Mariposa Rd	8	172,800	177,140	1.03	F
105. Mariposa Road - Between SR 99 and 8th St./Farmington Rd	6	59,300	37,820	0.64	C
106. Mariposa Road - Between Carpenter Road and SR 99	6	59,300	43,992	0.74	D
107. Mariposa Road - Between the Project Site and Carpenter Road	4	38,200	35,371	0.93	E
108. Mariposa Road - Southeast of the Project Site	4	38,200	23,965	0.63	C
109. Mariposa Road - East of Austin Road	4	38,200	13,717	0.36	A
110. SR 99 - Between Mariposa Road and Arch-Airport Road	8	172,800	117,898	0.68	C
111. Arch-Airport Road - Between Qantas Lane and SR 99	6	59,300	69,172	1.17	F
112. SR 99 - South of Arch-Airport Road	8	172,800	107,006	0.62	C

Notes: "SR" = State Route. "V/C Ratio" = volume-to-capacity ratio.

107. Mariposa Road, Between the Project Site and Carpenter Road

Under long-term future Cumulative Plus Project conditions, this roadway segment would operate at LOS E. LOS E is considered unacceptable. Compared to Cumulative No Project Conditions, the project-related increase in volume would be greater than five percent. Therefore, based on criteria presented in the *General Plan Policy Consistency Criteria* section of this traffic impact study, the project-related inconsistency with General Plan policies is considered significant. The following improvement is recommended to improve operating conditions to acceptable LOS and reduce the project-related inconsistency with General Plan policies to a less than significant level:

- Under long-term future cumulative conditions, widen this roadway segment from four lanes to six lanes.

As shown in **Table 25**, implementation of the above recommended improvement would improve traffic operations to LOS C. LOS C is considered acceptable.

Table 25. Roadway Segment Level of Service - Cumulative Plus Project Conditions With Recommended Improvements

Roadway Segment	Number of Lanes	Daily Capacity	Daily Volume	V/C Ratio	Level of Service
107. Mariposa Road - Between the Project Site and Carpenter Road	6	59,300	35,371	0.60	C

Notes: "SR" = State Route. "V/C Ratio" = volume-to-capacity ratio.

111. Arch-Airport Road, Between Qantas Lane and SR 99

Under Cumulative Plus Project conditions, this roadway segment would operate at LOS F. LOS F is considered unacceptable. However, LOS would also be unacceptable under Cumulative No Project conditions, and the project-related change in traffic volume would not be greater than a five percent increase. Therefore, based on criteria presented in the *General Plan Policy Consistency Criteria* section of this traffic impact study, the project-related inconsistency with General Plan policies is considered less than significant and no improvements are recommended.

PROJECT SITE ACCESS

To assess the adequacy of project site access under long-term future conditions, LOS at the two project site driveway intersections were analyzed under Cumulative Plus Project conditions. These two intersections are:

14. Mariposa Road & Northwest Project Driveway
15. Mariposa Road & Southeast Project Driveway

Cumulative Plus Project a.m. peak hour and p.m. peak hour traffic volumes and intersection lane geometrics at these two intersections are shown in **Figure 25**.

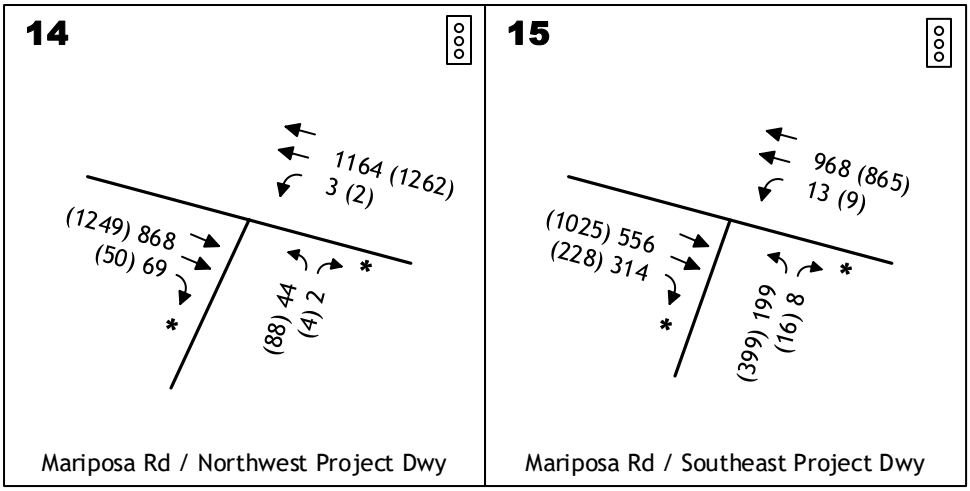
Table 26 presents the a.m. peak hour and p.m. peak hour LOS at the two study intersections under Cumulative Plus Project conditions. The worksheets presenting the calculation of LOS are included in the technical appendix.

Table 26. Intersection Level of Service - Cumulative Plus Project Conditions

	Study Intersections	Inters. Control	AM Peak LOS	AM Peak Delay	PM Peak LOS	PM Peak Delay
14	Mariposa Road & Northwest Project Driveway	Signal	A	3.2	A	5.1
15	Mariposa Road & Southeast Project Driveway	Signal	B	12.8	C	20.1

Notes: LOS = Level of Service. "Inters. Control" = Type of intersection control.
"Signal" = Signalized light control.
Delay is measured in seconds per vehicle.
Per City of Stockton guidelines, intersection average delay is reported for all intersections.

Under Cumulative Plus Project conditions, LOS at both of the two project site access intersections would be at acceptable LOS C or better during both the a.m. peak hour and the p.m. peak hour. As a result, traffic operations at the project site access locations are considered to be adequate. No improvements would be needed at these two intersections to achieve acceptable LOS.



Legend

XX AM Peak Hour Volume

(XX) PM Peak Hour Volume

Signalized Intersection

* "Free" Right Turn

NORTH

N.T.S.

CUMULATIVE PLUS PROJECT INTERSECTION TRAFFIC VOLUMES AND LANE CONFIGURATIONS

KD Anderson & Associates, Inc.
Transportation Engineers

0780-18 RA 7/9/2021

figure 25

VEHICLE MILES TRAVELED

As noted earlier in the *Significance Thresholds* section of this traffic impact study, the effects of the proposed project on VMT are determined by comparing travel associated with the Mariposa Industrial Park project as proposed to travel associated with development of the project site with the current General Plan land use designations.

As noted earlier in the *Project Description* section of this traffic impact study, the Mariposa Industrial Park project proposes industrial land uses on the project site. As also noted in the *Project Description* section, the project site currently has an Industrial land use designation in the City of Stockton General Plan. Therefore, in this traffic impact study, vehicle travel associated with the Mariposa Industrial Park project would be the same as the Industrial land uses currently designated in the City of Stockton General Plan. That is, implementation of the Mariposa Industrial Park project would result in no net change from travel associated with the current General Plan-designated land uses.

VMT is calculated by multiplying the number of vehicle trips by the length of vehicle trips. As a result, a certain percent change in the number of vehicle trips would cause an equivalent change in VMT. Therefore, for the Mariposa Industrial Park project, a comparison of vehicle trips is considered equivalent to a comparison of VMT. Because the Mariposa Industrial Park project would result in no net change from travel associated with the current General Plan–designated land use, the project would result in no net change in VMT.

As described in the *Vehicle Miles Traveled Significance Threshold* section of this traffic impact study,

> "Consistent with General Plan Action TR4.3A, if a project would result in a 15 percent or more reduction of vehicle travel, a project is considered to have a less-than-significant impact. A project that would not result in a reduction of 15 percent or more is considered to have a significant impact."

Because the Mariposa Industrial Park project would not result in a 15 percent reduction in VMT, the project is considered to have a significant impact on VMT. Implementation of the following mitigation measures would reduce the impact of the project on VMT. The numbering of the following mitigation measures is from the document *Quantifying Greenhouse Gas Mitigation Measures - A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures* (California Air Pollution Control Officers Association 2010), which contains more detailed information on these measures. The numbering of the following mitigation measures is not sequential in this traffic impact study. The out-of-sequence numbering is provided below to allow direct reference to the California Air Pollution Control Officers Association (CAPCOA) document. The "TRT" acronym shown below is used in the numbering of the CAPCOA document and refers to Trip Reduction – Transportation.

Mitigation Measure TRT-1. Implement Commute Trip Reduction Program - Voluntary

The Mariposa Industrial Park project will implement a Commute Trip Reduction

(CTR) Program – Voluntary with employers to discourage single-occupancy vehicle trips and encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking. This is a multi-strategy program that encompasses a combination of individual measures.

The CTR program will provide employees with assistance in using alternative modes of travel, and provide both "carrots" and "sticks" to encourage employees. The CTR program should include all of the following:

- Carpooling encouragement
- Ride-matching assistance
- Preferential carpool parking
- Flexible work schedules for carpools
- Half time transportation coordinator
- Vanpool assistance
- Bicycle end-trip facilities (parking, showers and lockers)

Other strategies may also include:

- new employee orientation of trip reduction and alternative mode options,
- event promotions and publications,
- flexible work schedule for all employees,
- transit subsidies,
- parking cash-out or priced parking,
- shuttles,
- emergency ride home, and
- improved on-site amenities.

Mitigation Measure TRT-5. Provide End of Trip Bicycle Facilities

The Mariposa Industrial Park project will provide "end-of-trip" facilities for bicycle riders including showers, secure bicycle lockers, and changing spaces. End-of-trip facilities encourage the use of bicycling as a viable form of travel to destinations, especially to work. End-of trip facilities provide the added convenience and security needed to encourage bicycle commuting.

Mitigation Measure TRT-11. Provide Employer-Sponsored Vanpool/Shuttle

The Mariposa Industrial Park project will implement an employer-sponsored vanpool or shuttle. A vanpool will usually service employees' commute to work while a shuttle will service nearby transit stations and surrounding commercial centers. Employer-sponsored vanpool programs entail an employer purchasing or leasing vans for employee use, and often subsidizing the cost of at least program administration, if not more. The driver usually receives personal use of the van, often for a mileage fee. Scheduling is within the employer's purview, and rider charges are normally set on the basis of vehicle and operating cost.

Implementation of the measures listed above would reduce project-related VMT and reduce the significance of the impact on VMT. However, quantification of the reduction is not possible at this time. At the time this traffic impact study was prepared, potential occupants of the Mariposa Industrial Park project were not identified. While the type of land use is expected to be industrial, specific tenants were not known. As a result, the following factors which would affect the ability to implement VMT reduction measures are not known:

- hours of operation, including times of the day when work shift would change;
- the portion of work positions which would be full-time versus part-time;
- feasibility of implementing flexible work schedules; and
- degree to which working remotely is feasible.

Because the potential occupants of the project are not known, it is not possible to establish an enforceable commitment to reduce VMT by more than 15 percent. As a result, this impact is considered significant and unavoidable.

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TECHNICAL APPENDICES

IN SEPARATE ELECTRONIC FILES