FINAL INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

FOR THE

AIRPORT BUSINESS CENTRE NORTH PROJECT

NOVEMBER 23, 2022

Prepared for:

City of Manteca – City Hall
1001 West Center Street
Manteca, CA 95337
(209) 456-8000

Prepared by:

De Novo Planning Group
1020 Suncast Lane, Suite 106
El Dorado Hills, CA 95762
(916) 580-9818

D e N o v o P l a n n i n g G r o u p

A Land Use Planning, Design, and Environmental Firm

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Proposed Airport Business Centre North Project

Lead Agency:
City of Manteca
1001 West Center Street
Manteca, CA 95337

Project Title: Airport Business Centre North Project

Project Location: The 21.3-acre Project site is located at 3045, 3123, and 3157 N Airport Way (APN: 198-200-130, -060, -090). The Project site is within the Northwest Airport Way Master Plan area, is zoned 'Master Plan' (MP), and is designated as 'Light Industrial (LI) in the General Plan.

The project site currently is home to Riella Farms, which is a small family-owned agricultural operation that specializes in procuring beef, sheep, goat, and poultry. The business offices and livestock pens are mostly located in the southeastern quadrant of the Project site with open pasture located in the southwestern quadrant. A rural residence is located in the northeastern quadrant, while open pasture and a hay barn is located in the northwestern quadrant. The project site is generally flat, with an elevation range of approximately 22 to 25 feet above sea level. See Figures 1 and 2 for the regional location and the project vicinity. The site plan is shown in Figure 3. Figure 4 provides Elevations of the facilities. Figure 5 provides site photos.

Much of the area surrounding the Project site is planned for development. Some of the surrounding properties are developed, while some are approved but not yet built, or pending approval. To the north of the Project site is Tactical Way, a 5.11 Factory Store/Warehouse, and an Amazon Fulfillment Center. To the south of the Project site is an existing approved, but not yet built, warehouse facility. To the east of the Project site is Airport Way and existing orchards that are planned for Residential development. To the west of the Project site is an existing storm drainage basin, Intermodal Way, and planned Industrial development.

Project Description: The proposed Project is a 360,000 square foot distribution building located within the Northwest Airport Way Master Plan. The building placement and site design is intended to provide significant landscape buffer from North Airport Way and allows only one auto vehicular access with no truck ingress and egress. All truck movement ingress & egress to the site is via Intermodal Way and Tactical Way with a long on- site private drive along the western side of the Project site. This driveway provides generous stacking capabilities which eliminates the possibility of any backup on to Tactical Way. There will be no through on-site circulation for truck traffic to reach Airport Way with the intent to restrict the truck access to Airport Way. Figure 6 illustrates the Truck ingress/egress.

The design of the building is intended to incorporate the guidelines of the Airport Frontage Buffer Area in the Master Plan and be consistent with the recently approved Airport Business Centre (South). The site plan limits the vehicle parking along Airport to one row and incorporates significant landscaping and berming along Airport to buffer the building presence. The offices at the corners of the building feature glass and have accent colors that are also picked up above the clerestory windows. There are metal awnings included as well as wall undulation or insets at the ends of the building. Varied parapets heights are provided to give articulation to help define the building massing.

The facility will operate as a distribution warehouse. The facility will be a 360,000-sf tilt up concrete building. The parking area is designed with 242 car parking stalls, and 93 trailer stalls. The site plan shows 46 truck docks located on the western side of the building, which is not visible from Airport Way. The building use is broken into 355,000 sf for warehouse space, and 5,000 sf for office space. The footprint of the building covers 38.2% of the lot.

The proposed Project is consistent with the light industrial design standards and guidelines established in the approved Northwest Airport Way Master Plan, and implements the small-scale light industrial uses that are encouraged within the Northwest Airport Way Master Plan. Furthermore, the environmental impacts of this proposed development have already been fully analyzed in accordance with the California Environmental Quality Act (CEQA) under the certified Northwest Airport Way Master Plan Final Environmental Impact Report (State Clearinghouse Number 2010022024). Future tenants of the proposed Project would be required to comply with the uses that are permitted by right (and conditionally permitted with procurement of a Conditional Use Permit) within the Light Industrial Zoning District by the City of Manteca Zoning Code.

Findings:

In accordance with the California Environmental Quality Act, the City of Manteca has prepared an Initial Study to determine whether the proposed project may have a significant adverse effect on the environment. The Initial Study

and Proposed Mitigated Negative Declaration reflect the independent judgment of City of Manteca staff. On the basis of the Initial Study, the City of Manteca hereby finds:

> *Although the proposed project could have a significant adverse effect on the environment, there will not be a significant adverse effect in this case because the project has incorporated specific provisions to reduce impacts to a less than significant level and/or the mitigation measures described herein have been added to the project. A Mitigated Negative Declaration has thus been prepared.*

The Initial Study, which provides the basis and reasons for this determination, is attached and/or referenced herein and is hereby made a part of this document.

Signature	Date

Proposed Mitigation Measures:

The following Mitigation Measures are extracted from the Initial Study. These measures are designed to avoid or minimize potentially significant impacts, and thereby reduce them to an insignificant level. A Mitigation Monitoring and Reporting Program (MMRP) is an integral part of project implementation to ensure that mitigation is properly implemented by the City and the implementing agencies. The MMRP will describe actions required to implement the appropriate mitigation for each CEQA category including identifying the responsible agency, program timing, and program monitoring requirements. Based on the analysis and conclusions of the Initial Study, the impacts of proposed project would be mitigated to less-than-significant levels with the implementation of the mitigation measures presented below.

AGRICULTURE AND FORESTRY RESOURCES

MM AG-1: At the time building permits are sought for any Master Plan contemplated use, the project applicant shall pay the required City of Manteca agricultural mitigation fee to help offset the conversion of Important Farmland pursuant to Manteca Municipal Code Chapter 13.42.

AIR QUALITY

MM AIR-1a: Prior to issuance of grading permits for each Master Plan use, the project applicant shall provide information to the City of Manteca describing the methods by which the following measures will be complied with:

- Off-road equipment used onsite shall achieve a fleet average emissions equal to or less than the Tier II emissions standard of 4.8 grams of NOx per horsepower hour. This can be achieved through any combination of uncontrolled engines and engines complying with Tier II and above engine standards. Tier II emission standards are set forth in Section 2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 Code of Federal Regulations.
- Construction equipment shall be properly maintained at an offsite location; maintenance shall include proper tuning and timing of engines. Equipment maintenance records and data sheets of equipment design specifications shall be kept on-site during construction.
- Onsite construction equipment shall not idle for more than 5 minutes in any one hour.
- During the building phase, onsite electrical hook ups shall be provided for electric construction tools including saws, drills and compressors, to eliminate the need for diesel powered electric generators.
- Construction workers shall be encouraged to carpool to and from the construction site to the greatest extent practical. Workers shall be informed in writing and a letter shall be placed on file in the City office documenting efforts to carpool.

MM AIR-1b: During the architectural coating phase for all Master Plan uses, paints with a volatile organic compound content less than 10 grams per liter shall be used.

MM AIR-1c: Prior to issuance of building permits for each Master Plan building, the project applicant shall demonstrate compliance with all applicable requirements of San Joaquin Valley Air Pollution Control District, Rule 9510 via the submittal of a Rule 9510 Implementation Plan to the City of Manteca for review and approval. The implementation plan shall achieve a 33-percent reduction in NOx and a 45-percent reduction in PM10 over the first 10 years of operations through the use of onsite emissions reduction measures or through the payment of offsite mitigation fees to the SJVAPCD for purchase of emission reductions. The requirements of the approved implementation plan shall be incorporated into the proposed project.

MM AIR-1d: Prior to approval of the final site plan for each Master Plan building that would receive 10 more truck deliveries per week, the project applicant shall demonstrate that the following anti-idling measures would be implemented:

- Provide available electricity hookups for trucks in the loading dock areas.
- Signs shall be posted in dock areas advising drivers that idling shall not occur for more than 3 minutes.
- Telephone numbers of the building facilities manager and the California Air Resources Board shall be posted on signs at truck entrances to report idling violations.

MM AIR-6: Prior to final site plan approval for any Master Plan use that includes food service (i.e., restaurants, cafeterias, etc.), the applicant shall demonstrate compliance with SJVAPCD Rules 4102 (Nuisance) and 4692 (Commercial Charbroiling) to the extent that these rules are applicable. Compliance may entail the installation of kitchen exhaust vents, exhaust filtration systems, or other odor-reduction measures in accordance with accepted engineering practice. The approved plans shall be incorporated into the proposed project.

BIOLOGICAL RESOURCES

MM BIO-1a: If ground clearing or vegetation removal activities occur during the nesting season (February 15 through August 31), then pre-construction surveys for nesting birds shall be conducted in all area suitable for nesting that are located within 250 feet of the Master Plan area. Surveys shall be conducted no more than 15 days prior to the beginning of ground disturbance. If an active nest is located, a 250-foot buffer shall be delineated and maintained around the nest until a qualified biologist has determined that fledging has occurred. Alternatively, CDFG may be consulted to determine if the protective buffer can be reduced based upon individual species responses to disturbance. This mitigation measure does not apply if ground clearing or vegetation removal activities occur outside of the nesting season (September 1 through February 14).

MM BIO-1b: No more than 30 day prior to the beginning of ground disturbance, a pre-construction survey for burrowing owls shall be conducted by a qualified biologist in general accordance with the Burrowing Owl Survey Protocol and Mitigation Guidelines by the California Burrowing Owl Consortium. Should the surveys be scheduled to occur during the period extending from February 1 through May 1, then surveys shall be conducted no more that 15 days prior to the start of ground disturbance. Surveys shall be conducted from 2 hours before sunset to 1 hour after sunset, or from 1 hour before sunrise to 2 hours after sunrise, and shall be conducted during weather conducive to observing owls outside of their burrows. No surveys shall occur during heavy rain, high winds, or dense fog. If occupied burrows are found, mitigation for potential impacts shall follow the guidelines outlined by the Burrowing Owl Survey Protocol and Mitigation Guidelines, including passive relocation.

MM BIO-6: Prior to issuance of the first grading or building permit for the Master Plan, the project applicant shall obtain coverage under the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan. Coverage shall consist of approval of the Master Plan-specific "Section 8.2.1 (10) Checklist for Unmapped SJMSCP Projects" by the San Joaquin Council of Governments Technical Advisory Committee. The applicant shall pay all required fees to the San Joaquin Council of Governments prior to the commencement of construction activities.

CULTURAL RESOURCES

MM CUL-1: If potentially significant historic resources are encountered during subsurface excavation activities for any Master Plan use, all construction activities within a 100-foot radius of the resource shall cease until a qualified archaeologist determines whether the resource requires further study. The City shall require that the applicant include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered resources found during construction shall be recorded on appropriate California Department of Parks and Recreation forms and evaluated for significance in terms of California Environmental Quality Act criteria by a qualified archaeologist. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. If the resource is determined to be significant under CEQA, the City and a qualified archaeologist shall determine whether preservation in place is feasible. Such preservation in place is the preferred mitigation. If such preservation is infeasible, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan for the resource. The archaeologist shall also conduct appropriate technical analyses, prepare a comprehensive written report and file it with the appropriate information center (California Historical Resources Information System), and provide for the permanent curation of the recovered materials.

MM CUL-2: If potentially significant archaeological resources are encountered during subsurface excavation activities, all construction activities within a 100-foot radius of the resource shall cease until a qualified archaeologist determines whether the resource requires further study. The City shall require that the applicant include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered resources found during construction shall be recorded on appropriate Department of Parks and Recreation forms and evaluated for significance in terms of California Environmental Quality Act criteria by a qualified archaeologist. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. If the resource is determined to be significant under CEQA, the City and a qualified archaeologist shall determine whether preservation in place is feasible. Such preservation in place is the preferred mitigation. If such preservation is infeasible, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan for the resource. The archaeologist shall also conduct appropriate technical analyses, prepare a comprehensive written report and file it with the appropriate information center (California Historical Resources Information System), and provide for the permanent curation of the recovered materials.

MM CUL-3: In the event that plant or animal fossils are discovered during subsurface excavation activities for the proposed project, all excavation within 50 feet of the fossil shall cease until a qualified paleontologist has determined the significance of the find and provides recommendations in accordance with Society of Vertebrate Paleontology standards. The paleontologist shall notify the City of Manteca to determine procedures to be followed before construction is allowed to resume at the location of the find. If the find is determined to be significant and the City determines that avoidance is not feasible, the paleontologist shall design and implement a data recovery plan consistent with the Society of Vertebrate Paleontology standards. The plan shall be submitted to the City for review and approval. Upon approval, the plan shall be incorporated into the project.

MM CUL-4: If previously unknown human remains are encountered during construction activities, Section 7050.5 of the California Health and Safety Code applies, and the following procedures shall be followed: In the event of an accidental discovery or recognition of any human remains, Public Resource Code Section 5097.98 must be followed. Once project-related ground disturbance begins and if there is accidental discovery of human remains, the following steps shall be taken:

- There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the San Joaquin County Coroner's Office is contacted to determine if the remains are Native American and if an investigation into cause of death is required. If the coroner determines the remains are Native American, the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the "most likely descendant" of the deceased Native American. The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.

GEOLOGY AND SOILS

MM GEO-1: Prior to issuance of building permits for each Master Plan use, the project applicant shall submit a design-level geotechnical study and building plans to the City of Manteca for review and approval. The building plans shall demonstrate that they incorporate all applicable recommendations of the design-level geotechnical study and comply with all applicable requirements of the most recent version of the California Building Standards Code. A licensed professional engineer shall prepare the plans, including those that pertain to soil engineering, structural foundations, pipeline excavation, and installation. The approved plans shall be incorporated into the proposed project. All onsite soil engineering activities shall be conducted under the supervision of a licensed Geotechnical Engineer or Certified Engineering Geologist.

HAZARDS AND HAZARDOUS MATERIALS

MM HAZ-1a: Prior to grading activities for any Master Plan use in areas where total petroleum hydrocarbons of diesel (i.e. TPH-D) has been detected, the applicant shall conduct soil sampling to delineate the horizontal and vertical extent of the TPH-D in order to implement a soil remediation program. Soil remediation shall be conducted in accordance with California Department of Toxic Substances Control (DTSC) guidelines. Contaminated soil shall be excavated and disposed of at an approved disposal facility. Following excavation, confirmation sampling shall be conducted to confirm whether remaining soil meets acceptable applicable regulatory levels. The excavation shall be backfilled with clean soil.

MM HAZ-1b: Prior to grading activities for any Master Plan use, any onsite wells or septic systems intended to be removed shall be destroyed under permit and inspection with San Joaquin County Environmental Health Department.

HYDROLOGY AND WATER QUALITY

MM HYD-1: Prior to the issuance of grading or building permits for each proposed activities within the Master Plan area, the project applicant shall prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) to the City of Manteca that identifies specific actions and Best Management Practices (BMPs) to prevent stormwater pollution during construction activities. The SWPPP shall identify a practical sequence for BMP implementation, monitoring, and maintenance; site restoration; contingency measures; responsible parties; and agency contacts. The SWPPP shall include but not be limited to the following elements:

- Temporary erosion control measures shall be employed for disturbed areas.
- Specific measures shall be identified to protect the onsite open drainages during construction of the proposed resort.
- Specific measures shall be identified to protect the French Camp Outlet Canal and Drain 3 during any construction activities.

- No disturbed surfaces shall be left without erosion control measures in place during the winter and spring months.
- Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures.
- The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains.
- BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the RWQCB to determine adequacy of the measure.
- In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season.

MM HYD-2: Prior to the issuance of building or grading permits for any development activities that occur pursuant to the Master Plan, the project applicant shall submit a stormwater quality control plan to the City of Manteca for review and approval. The plan shall include a detailed drainage plan and identify expected site-specific pollutants and required measures to treat those pollutants before they reach the regional detention basins and, ultimately, the French Camp Outlet Canal and San Joaquin River. The approved measures shall be incorporated into the proposed project. The plan will describe monitoring and performance measures and standards required in order to ensure water quality is adequately protected during operation of all proposed sites within the project area. Examples of stormwater pollution prevention measures and practices to be incorporated into the plan include but are not limited to:

- Strategically placed bioswales and landscaped areas that promote percolation of runoff
- Pervious pavement
- Roof drains that discharge to landscaped areas
- Trash enclosures with screen walls and roofs
- Stenciling on storm drains
- Curb cuts in parking areas to allow runoff to enter landscaped areas
- Rock-lined areas along landscaped areas in parking lots
- Catch basins
- Oil/water separators
- Regular sweeping of parking areas and cleaning of storm drainage facilities
- Employee training to inform maintenance personnel of stormwater pollution prevention measures

MM HYD-4: Prior to the issuance of building or grading permits for the proposed project, the project applicant shall submit a stormwater quality control plan for the project as a whole to the City of Manteca for review and approval. The plan shall include a detailed drainage plan that demonstrates attainment of pre-project runoff requirements prior to release at the outlet canal and describes the volume reduction measures and treatment controls used to reach attainment. The drainage plan shall identify all expected flows from the project area and the location, size, and type of facilities used to retain and treat the runoff volumes and peak flows to meet pre-project conditions. The approved drainage plan shall be incorporated into the proposed project.

NOISE

MM NOI-1: During construction activities for all Master Plan uses, the applicant shall require its construction contractors to adhere to the following noise attenuation requirements:

- Construction activities shall be limited to the hours between 7 a.m. to 8 p.m. daily. The City of Manteca Director of Public Works shall have the discretion to permit construction activities to occur outside of allowable hours if compelling circumstances warrant such an exception (e.g., weather conditions necessary to pour concrete).
- All construction equipment shall use noise-reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer. If no noise-reduction features were installed by the manufacturer, then the contractor shall require that at least a muffler be installed on the equipment.
- Construction staging and heavy equipment maintenance activities shall be performed a minimum distance of 300 feet from the nearest residence, unless safety or technical factors take precedence (e.g., an equipment breakdown).

- A 10-foot-high construction noise barrier shall be installed along the edge of the Master Plan area within 300 feet of any offsite residence prior to start of grading activities. The noise barrier shall either be constructed of a minimum 0.5-inch plywood or utilize acoustical blankets with a minimum Sound Transmission Class of 12. The barrier shall remain in place until noise intensive aspects of construction are completed.

MM NOI-4: During Master Plan operations, the use of street sweepers and mechanical landscape maintenance equipment (lawnmowers, leaf blowers, etc.) shall be prohibited between the hours of 10 p.m. and 7 a.m.

PUBLIC SERVICES

MM PSU-1: Prior to issuance of building permits for any Master Plan uses, the project applicant shall provide the City of Manteca will all applicable fire protection development fees in accordance with the latest adopted fee schedule.

TRANSPORTATION

MM TRANS-1: Prior to issuance of building permits for each Master Plan use, the applicant shall pay all transportation-related fees in accordance with the latest adopted fee schedule at the time permits are sought. Such fees shall include, but not be limited to, the City of Manteca Public Facilities Implementation Plan fee and the San Joaquin County Regional Transportation Impact Fee.

MM TRANS-4a: Prior to site plan review for each Master Plan use, the applicant shall consult with the City of Manteca Community Development Department about appropriate frontage improvements. All necessary frontage improvements shall be depicted on the final site plan and implemented as part of site development.

MM TRANS-6a: Prior to site plan review for each Master Plan light industrial use, the applicant shall consult with the City of Manteca Community Development Department, Manteca Transit, and the San Joaquin Regional Transit District about the inclusion of appropriate transit facilities (turnouts, shelters, etc.) or services (e.g., an employee shuttle). If transit facilities are deemed to be **necessary**, they shall be provided on the final site plan. If transit services are deemed to be necessary, the applicant shall prepare a service plan and submit it to the City of Manteca for review and approval. The approved plan shall be incorporated into the project. To the extent feasible, transit facilities and services shall be coordinated among Master Plan uses to maximize efficiency and effectiveness.

MM TRANS-6b: Prior to site plan review for each Master Plan light industrial use, the applicant shall consult with the City of Manteca Community Development Department about the inclusion of appropriate bicycle facilities (racks, lockers, etc.). If bicycle facilities are deemed to be necessary, such facilities shall be provided on the final site plan.

MM TRANS-6c: Prior to site plan review for each Master Plan light industrial use, the applicant shall consult with the City of Manteca Community Development Department about the inclusion of appropriate pedestrian facilities. If pedestrian facilities are deemed to be necessary, such facilities shall be provided on the final site plan.

MM TRANS-7: Prior to issuance of grading permits for each Master Plan use, the applicant shall submit a Construction Traffic Control Plan to the City of Manteca for review and approval. The plan shall identify the timing and routing of all major construction equipment and trucking to avoid potential traffic congestion and delays on the local street network. The plan shall encourage the use of Interstate 5 (I-5), Roth Road, Airport Way, and Lathrop Road wherever practical. Anticipated temporary road closures should be identified, along with safety measures and detours. If necessary, construction equipment and materials deliveries shall be limited to off-peak hours to avoid conflicts with local traffic circulation. The plan shall also identify suitable locations for construction worker parking.

UTILITIES

MM PSU-3a: Prior to issuance of building permits for each Master Plan use, the applicant shall prepare and submit documentation to the City of Manteca for review and approval identifying a non-potable irrigation system that is separate from the potable water systems. The non-potable irrigation system shall use non-potable well water until recycled water is available, at which point it shall be converted to use recycled water.

MM PSU-3b: Prior to issuance of building permits for each Master Plan use, the applicant shall prepare and submit documentation to the City of Manteca for review and approval identifying that all appropriate and feasible water conservation measures are incorporated into the proposed use(s). The approved measures shall be incorporated into the final development plans. Examples of water conservation measures include but are not limited to:

- Drought-tolerant landscaping or xeriscaping

- Water efficient irrigation systems (drip irrigation, bubbler/soaker systems, hydrozones, evapotranspiration controllers, etc.)

- Sensor-activated low-flow fixtures (e.g., faucets, urinals, and toilets)

MM PSU-6a: Prior to issuance of building permits for any building developed pursuant to the Master Plan, the project applicant shall retain a qualified contractor to perform construction and demolition debris recycling. Following the completion of construction activities, the project applicant shall provide documentation to the satisfaction of the City of Manteca demonstrating that construction and demolition debris was recycled.

MM PSU-6b: Prior to issuance of building permits for each building developed pursuant to the Master Plan, the project applicant shall provide information to the City of Manteca describing the methods by which recycling and waste diversion activities shall be achieved. This information shall include but is not limited to the type and location of facilities necessary to collect and store recyclable materials, contractors who would pick-up recyclable and reusable materials, and how recycling and waste diversion activities would be integrated into operational practices. To the extent feasible, centralized recycling facilities are encouraged to enhance the ease and efficiency of such practices. The approved facilities and practices shall be incorporated into the uses envisioned by the Master Plan.

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INITIAL STUDY CHECKLIST

PROJECT TITLE

Airport Business Centre North Project

LEAD AGENCY NAME AND ADDRESS

City of Manteca – City Hall
1001 West Center Street
Manteca, CA 95337
(209) 456-8000

CONTACT PERSON AND PHONE NUMBER

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Irvine, CA 92612
714-749-6508

PROJECT LOCATION AND SETTING

The 21.3-acre Project site is located at 3045, 3123, and 3157 N Airport Way (APN: 198-200-130, -060, -090). The Project site is within the Northwest Airport Way Master Plan area, is zoned 'Master Plan' (MP), and is designated as 'Light Industrial (LI) in the General Plan.

The project site currently is home to Riella Farms, which is a small family-owned agricultural operation that specializes in procuring beef, sheep, goat, and poultry. The business offices and livestock pens are mostly located in the southeastern quadrant of the Project site with open pasture located in the southwestern quadrant. A rural residence is located in the northeastern quadrant, while open pasture and a hay barn is located in the northwestern quadrant. The project site is generally flat, with an elevation range of approximately 22 to 25 feet above sea level. See Figures 1 and 2 for the regional location and the project vicinity. The site plan is shown in Figure 3. Figure 4 provides Elevations of the facilities. Figure 5 provides site photos.

Much of the area surrounding the Project site is planned for development. Some of the surrounding properties are developed, while some are approved but not yet built, or pending approval. To the north of the Project site is Tactical Way, a 5.11 Factory Store/Warehouse, and an Amazon Fulfillment Center. To the south of the Project site is an existing approved, but not yet built, warehouse facility. To the east of the Project site is Airport Way and existing orchards that are planned for residential development. To the west of the Project site is an existing storm drainage basin, Intermodal Way, and planned industrial development.

PROJECT DESCRIPTION

The proposed Project is a 360,000 square foot distribution building located within the Northwest Airport Way Master Plan. The building placement and site design is intended to provide significant landscape buffer from North Airport Way and allows only one auto vehicular access with no truck ingress and egress. All truck movement ingress & egress to the site is via Intermodal Way and Tactical Way with a long on- site private drive along the western side of the Project site. This driveway provides generous stacking capabilities which eliminates the possibility of any

backup on to Tactical Way. There will be no through on-site circulation for truck traffic to reach Airport Way with the intent to restrict the truck access to Airport Way. Figure 6 illustrates the Truck ingress/egress.

The design of the building is intended to incorporate the guidelines of the Airport Frontage Buffer Area in the Master Plan and be consistent with the recently approved Airport Business Centre (South). The site plan limits the vehicle parking along Airport to one row and incorporates significant landscaping and berming along Airport to buffer the building presence. The offices at the corners of the building feature glass and have accent colors that are also picked up above the clerestory windows. There are metal awnings included as well as wall undulation or insets at the ends of the building. Varied parapets heights are provided to give articulation to help define the building massing.

The facility will operate as a distribution warehouse. The facility will be a 360,000-sf tilt up concrete building. The parking area is designed with 242 car parking stalls, and 93 trailer stalls. The site plan shows 46 truck docks located on the western side of the building, which is not visible from Airport Way. The building use is broken into 355,000 sf for warehouse space, and 5,000 sf for office space. The footprint of the building covers 38.2% of the lot.

The proposed Project is consistent with the light industrial design standards and guidelines established in the approved Northwest Airport Way Master Plan, and implements the small-scale light industrial uses that are encouraged within the Northwest Airport Way Master Plan. Furthermore, the environmental impacts of this proposed development have already been fully analyzed in accordance with the California Environmental Quality Act (CEQA) under the certified Northwest Airport Way Master Plan Final Environmental Impact Report (State Clearinghouse Number 2010022024). Future tenants of the proposed Project would be required to comply with the uses that are permitted by right (and conditionally permitted with procurement of a Conditional Use Permit) within the Light Industrial Zoning District by the City of Manteca Zoning Code.

PROJECT BACKGROUND

The proposed Project is located within the Northwest Airport Way Master Plan area (Master Plan area), which is a master plan area that guides the development of industrial uses, community commercial uses, and associated site improvements on 390 acres. An Environmental Impact Report (EIR) was prepared for the Northwest Airport Way Master Plan area (State Clearinghouse # 2010022024) in 2010 (Master Plan EIR). Several EIR Addendums and Mitigated Negative Declarations have been completed for projects within the Master Plan area.

More recently the City has proposed modifications to the circulation system within the Northwest Airport Way Master Plan area based on input from residents located east of Airport Way, and input provided from the City of Lathrop. The proposed modifications that the City is considering includes:

- Elimination of truck trips from using Lathrop Road or Airport Road to reduce truck traffic in residential areas.
- Eliminate unsignalized all way access on Airport Road (i.e. right-in-right out only at non-signalized access points)
- Modify Intermodal Way such that it does not connect to Lathrop Road.
- Establish a STAA route from the southern terminus of Intermodal Way north to Roth Road.

- Establish a STAA route on Roth Road to I-5.
- Concentrate all heavy truck trips on Intermodal Way and Roth Road

While not yet approved, these modifications to the circulation system were developed by the Manteca Planning and Engineering Departments through coordination with the City of Lathrop and neighboring Manteca residents. These modifications alleviate the concerns for truck traffic driving through residential areas of Airport Way and Lathrop Road. These modifications are also intended to improve safety on Airport Way and Lathrop Road, and will eliminate diesel truck emissions from these more sensitive residential areas. These modifications are anticipated to provide benefits related to Air Quality concerns, as well as traffic concerns, if they are in fact approved by the City of Manteca. The proposed site plan is consistent with the proposed modifications to the Northwest Airport Way Master Plan.

Tiering

According to CEQA Guidelines section 15168, subdivision (c)(5), "[a] program EIR will be most helpful in dealing with later activities if it provides a description of planned activities that would implement the program and deals with the effects of the program as specifically and comprehensively as possible." Later environmental documents (EIRs, mitigated negative declarations, or negative declarations) can incorporate by reference materials from the program EIR regarding regional influences, secondary impacts, cumulative impacts, broad alternatives, and other factors (CEQA Guidelines Section 15168[d][2]). These later documents need only focus on new impacts that have not been considered before (CEQA Guidelines Section 15168[d][3]).

Section 15168(c), entitled "Use with Later Activities," provides, in pertinent part, as follows:

Later activities in the program must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared:

1. If a later activity would have effects that were not examined in the program EIR, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration. That later analysis may tier from the program EIR as provided in Section 15152.

2. If the agency finds that pursuant to Section 15162, no subsequent EIR would be required, the agency can approve the activities as being within the scope of the project covered by the program EIR, and no new environmental document would be required. Whether a later activity is within the scope of a program EIR is a factual question that the lead agency determines based on substantial evidence in the record. Factors that an agency may consider in making that determination include, but are not limited to, consistency of the later activity with the type of allowable land use, overall planned density and building intensity, geographic area analyzed for environmental impacts, and covered infrastructure, as described in the program EIR.

3. An agency shall incorporate feasible mitigation measures and alternatives developed in the program EIR into later activities in the program.

4. Where the later activities involve site specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were within the scope of the program EIR.

Generally, when a property owner submits applications for site-specific approvals (i.e., tentative maps, conditional use permits, or other discretionary entitlements), the City staff will review the applications for consistency with the higher tier document. This consistency review ultimately determines whether the application for site specific approval is consistent with the higher tier document, Conditions of Approval, and Mitigation Measures, and whether it is consistent with what was anticipated and analyzed in the program EIR. Often a City will conclude that most, or all, components of the site-specific application can be developed with no new analysis of environmental effects, or a focused analysis limited to the environmental effects that could not be reasonably foreseen at the time the certified EIR was prepared.

These site-specific approvals may be narrowed pursuant to the rules for tiering set forth in CEQA Guidelines Section 15152. "'[T]iering is a process by which agencies can adopt programs, plans, policies, or ordinances with EIRs focusing on 'the big picture,' and can then use streamlined CEQA review for individual projects that are consistent with such…[first tier decisions] and are…consistent with local agencies' governing general plans and zoning.'" (*Koster v. County of San Joaquin* (1996) 47 Cal.App.4th 29, 36.) Section 15152 provides that, where a first-tier EIR has "adequately addressed" the subject of cumulative impacts, such impacts need not be revisited in second- and third-tier documents. Furthermore, second- and third-tier documents may limit the examination of impacts to those that "were not examined as significant effects" in the prior EIR or "[a]re susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or other means." In general, significant environmental effects have been "adequately addressed" if the lead agency determines that:

a. they have been mitigated or avoided as a result of the prior environmental impact report and findings adopted in connection with that prior environmental impact report; or

b. they have been examined at a sufficient level of detail in the prior environmental impact report to enable those effects to be mitigated or avoided by site specific revisions, the imposition of conditions, or by other means in connection with the approval of the later project.

Where a site-specific approval within the City warrants additional environmental review, there are several paths forward. This includes an EIR Addendum, a Mitigated Negative Declaration, or some form of Environmental Impact Report. The Mitigated Negative Declaration is a CEQA review that is commonly prepared for small projects built out under a Master Plan with a certified EIR. Based on the characteristics of the proposed Project, the City of Manteca has determined it is appropriate to develop an IS/MND for the proposed Project, using the tiering concept. Therefore, this IS/MND tiers from the Northwest Airport Way Master Plan EIR and the Addendum to the Northwest Airport Way Master Plan EIR. These documents can be found at the City of Manteca website at the following location:

https://www.ci.manteca.ca.us/CommunityDevelopment/Planning%20Division/Pages/Planning-Division-Documents.aspx

Mitigation Measures

Table PD-1, below, identifies the mitigation measures from the Northwest Airport Way Master Plan EIR that are applicable to the proposed Project. It should be noted that these mitigation measures, which are directly from the Northwest Airport Way Master Plan EIR, have been included throughout this IS/MND. It should also be noted that the mitigation measure lettering and numbering scheme for the mitigation measures in this IS/MND is consistent with the

lettering and numbering scheme from the Northwest Airport Way Master Plan EIR, for the sake of consistency between the two documents.

Table PD-1: Applicable Mitigation Measures from the Northwest Airport Way Master Plan EIR

Environmental Topic	*Mitigation Measure Adopted by the City*
Agricultural and Forestry Resources	**MM AG-1**: At the time building permits are sought for any Master Plan contemplated use, the Project applicant shall pay the required City of Manteca agricultural mitigation fee to help offset the conversion of Important Farmland pursuant to Manteca Municipal Code Chapter 13.42.
Air Quality & Greenhouse Gas Emissions	**MM AIR-1a**: Prior to issuance of grading permits for each Master Plan use, the Project applicant shall provide information to the City of Manteca describing the methods by which the following measures will be complied with: • Off-road equipment used onsite shall achieve a fleet average emissions equal to or less than the Tier II emissions standard of 4.8 grams of NOx per horsepower hour. This can be achieved through any combination of uncontrolled engines and engines complying with Tier II and above engine standards. Tier II emission standards are set forth in Section 2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 Code of Federal Regulations. • Construction equipment shall be properly maintained at an offsite location; maintenance shall include proper tuning and timing of engines. Equipment maintenance records and data sheets of equipment design specifications shall be kept on-site during construction. • Onsite construction equipment shall not idle for more than 5 minutes in any one hour. • During the building phase, onsite electrical hook ups shall be provided for electric construction tools including saws, drills and compressors, to eliminate the need for diesel powered electric generators. • Construction workers shall be encouraged to carpool to and from the construction site to the greatest extent practical. Workers shall be informed in writing and a letter shall be placed on file in the City office documenting efforts to carpool. **MM AIR-1b**: During the architectural coating phase for all Master Plan uses, paints with a volatile organic compound content less than 10 grams per liter shall be used. **MM AIR-1c**: Prior to issuance of building permits for each Master Plan building, the Project applicant shall demonstrate compliance with all applicable requirements of San Joaquin Valley Air Pollution Control District, Rule 9510 via the submittal of a Rule 9510 Implementation Plan to the City of Manteca for review and approval. The implementation plan shall achieve a 33-percent reduction in NOx and a 45-percent reduction in PM10 over the first 10 years of operations through the use of onsite emissions reduction measures or through the payment of offsite mitigation fees to the SJVAPCD for purchase of emission reductions. The requirements of the approved implementation plan shall be incorporated into the proposed Project. **MM AIR-1d**: Prior to approval of the final site plan for each Master Plan building that would receive 10 more truck deliveries per week, the Project applicant shall demonstrate that the following anti-idling measures would be implemented: • Provide available electricity hookups for trucks in the loading dock areas. • Signs shall be posted in dock areas advising drivers that idling shall not occur for more than 3 minutes.

Environmental Topic	*Mitigation Measure Adopted by the City*
	• Telephone numbers of the building facilities manager and the California Air Resources Board shall be posted on signs at truck entrances to report idling violations. **MM AIR-6**: Prior to final site plan approval for any Master Plan use that includes food service (i.e., restaurants, cafeterias, etc.), the applicant shall demonstrate compliance with SJVAPCD Rules 4102 (Nuisance) and 4692 (Commercial Charbroiling) to the extent that these rules are applicable. Compliance may entail the installation of kitchen exhaust vents, exhaust filtration systems, or other odor-reduction measures in accordance with accepted engineering practice. The approved plans shall be incorporated into the proposed Project.
Biological Resources	**MM BIO-1a**: If ground clearing or vegetation removal activities occur during the nesting season (February 15 through August 31), then pre-construction surveys for nesting birds shall be conducted in all area suitable for nesting that are located within 250 feet of the Master Plan area. Surveys shall be conducted no more than 15 days prior to the beginning of ground disturbance. If an active nest is located, a 250-foot buffer shall be delineated and maintained around the nest until a qualified biologist has determined that fledging has occurred. Alternatively, CDFW may be consulted to determine if the protective buffer can be reduced based upon individual species responses to disturbance. This mitigation measure does not apply if ground clearing or vegetation removal activities occur outside of the nesting season (September 1 through February 14). **MM BIO-1b**: No more than 30 day prior to the beginning of ground disturbance, a pre-construction survey for burrowing owls shall be conducted by a qualified biologist in general accordance with the Burrowing Owl Survey Protocol and Mitigation Guidelines by the California Burrowing Owl Consortium. Should the surveys be scheduled to occur during the period extending from February 1 through May 1, then surveys shall be conducted no more that 15 days prior to the start of ground disturbance. Surveys shall be conducted from 2 hours before sunset to 1 hour after sunset, or from 1 hour before sunrise to 2 hours after sunrise, and shall be conducted during weather conducive to observing owls outside of their burrows. No surveys shall occur during heavy rain, high winds, or dense fog. If occupied burrows are found, mitigation for potential impacts shall follow the guidelines outlined by the Burrowing Owl Survey Protocol and Mitigation Guidelines, including passive relocation.
Cultural & Tribal Resources	**MM CUL-1:** If potentially significant historic resources are encountered during subsurface excavation activities for any Master Plan use, all construction activities within a 100-foot radius of the resource shall cease until a qualified archaeologist determines whether the resource requires further study. The City shall require that the applicant include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered resources found during construction shall be recorded on appropriate California Department of Parks and Recreation forms and evaluated for significance in terms of California Environmental Quality Act criteria by a qualified archaeologist. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. If the resource is determined to be significant under CEQA, the City and a qualified archaeologist shall determine whether preservation in place is feasible. Such preservation in place is the preferred mitigation. If such preservation is infeasible, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan for the resource. The archaeologist shall also conduct appropriate technical analyses, prepare a comprehensive written report and file it with the appropriate information center (California Historical Resources Information System), and provide for the permanent curation of the recovered materials.

Environmental Topic	*Mitigation Measure Adopted by the City*
	MM CUL-2: If potentially significant archaeological resources are encountered during subsurface excavation activities, all construction activities within a 100-foot radius of the resource shall cease until a qualified archaeologist determines whether the resource requires further study. The City shall require that the applicant include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered resources found during construction shall be recorded on appropriate Department of Parks and Recreation forms and evaluated for significance in terms of California Environmental Quality Act criteria by a qualified archaeologist. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. If the resource is determined to be significant under CEQA, the City and a qualified archaeologist shall determine whether preservation in place is feasible. Such preservation in place is the preferred mitigation. If such preservation is infeasible, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan for the resource. The archaeologist shall also conduct appropriate technical analyses, prepare a comprehensive written report and file it with the appropriate information center (California Historical Resources Information System), and provide for the permanent curation of the recovered materials. **MM CUL-3:** In the event that plant or animal fossils are discovered during subsurface excavation activities for the proposed Project, all excavation within 50 feet of the fossil shall cease until a qualified paleontologist has determined the significance of the find and provides recommendations in accordance with Society of Vertebrate Paleontology standards. The paleontologist shall notify the City of Manteca to determine procedures to be followed before construction is allowed to resume at the location of the find. If the find is determined to be significant and the City determines that avoidance is not feasible, the paleontologist shall design and implement a data recovery plan consistent with the Society of Vertebrate Paleontology standards. The plan shall be submitted to the City for review and approval. Upon approval, the plan shall be incorporated into the project. **MM CUL-4:** If previously unknown human remains are encountered during construction activities, Section 7050.5 of the California Health and Safety Code applies, and the following procedures shall be followed: In the event of an accidental discovery or recognition of any human remains, Public Resource Code Section 5097.98 must be followed. Once project-related ground disturbance begins and if there is accidental discovery of human remains, the following steps shall be taken: • There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the San Joaquin County Coroner's Office is contacted to determine if the remains are Native American and if an investigation into cause of death is required. If the coroner determines the remains are Native American, the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the "most likely descendant" of the deceased Native American. The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.

Environmental Topic	*Mitigation Measure Adopted by the City*
Geology and Soils	**MM GEO-1:** Prior to issuance of building permits for each Master Plan use, the Project applicant shall submit a design-level geotechnical study and building plans to the City of Manteca for review and approval. The building plans shall demonstrate that they incorporate all applicable recommendations of the design-level geotechnical study and comply with all applicable requirements of the most recent version of the California Building Standards Code. A licensed professional engineer shall prepare the plans, including those that pertain to soil engineering, structural foundations, pipeline excavation, and installation. The approved plans shall be incorporated into the proposed Project. All onsite soil engineering activities shall be conducted under the supervision of a licensed Geotechnical Engineer or Certified Engineering Geologist.
Hydrology and Water Quality	**MM HYD-1:** Prior to the issuance of grading or building permits for each proposed activities within the Master Plan area, the Project applicant shall prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) to the City of Manteca that identifies specific actions and Best Management Practices (BMPs) to prevent stormwater pollution during construction activities. The SWPPP shall identify a practical sequence for BMP implementation, monitoring, and maintenance; site restoration; contingency measures; responsible parties; and agency contacts. The SWPPP shall include but not be limited to the following elements: • Temporary erosion control measures shall be employed for disturbed areas. • Specific measures shall be identified to protect the onsite open drainages during construction of the proposed resort. • Specific measures shall be identified to protect the French Camp Outlet Canal and Drain 3 during any construction activities. • No disturbed surfaces shall be left without erosion control measures in place during the winter and spring months. • Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures. • The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains. • BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the RWQCB to determine adequacy of the measure. • In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season. **MM HYD-2:** Prior to the issuance of building or grading permits for any development activities that occur pursuant to the Master Plan, the Project applicant shall submit a stormwater quality control plan to the City of Manteca for review and approval. The plan shall include a detailed drainage plan and identify expected site-specific pollutants and required measures to treat those pollutants before they reach the regional detention basins and, ultimately, the French Camp Outlet Canal and San Joaquin River. The approved measures shall be incorporated into the proposed Project. The plan will describe monitoring and performance measures and standards required in order to ensure water quality is adequately protected during operation of all proposed sites within the project area. Examples of stormwater pollution prevention measures and practices to be incorporated into the plan include but are not limited to: • Strategically placed bioswales and landscaped areas that promote percolation of runoff • Pervious pavement

Environmental Topic	*Mitigation Measure Adopted by the City*
	• Roof drains that discharge to landscaped areas • Trash enclosures with screen walls and roofs • Stenciling on storm drains • Curb cuts in parking areas to allow runoff to enter landscaped areas • Rock-lined areas along landscaped areas in parking lots • Catch basins • Oil/water separators • Regular sweeping of parking areas and cleaning of storm drainage facilities • Employee training to inform maintenance personnel of stormwater pollution prevention measures **MM HYD-4**: Prior to the issuance of building or grading permits for the proposed Project, the Project applicant shall submit a stormwater quality control plan for the project as a whole to the City of Manteca for review and approval. The plan shall include a detailed drainage plan that demonstrates attainment of pre-project runoff requirements prior to release at the outlet canal and describes the volume reduction measures and treatment controls used to reach attainment. The drainage plan shall identify all expected flows from the project area and the location, size, and type of facilities used to retain and treat the runoff volumes and peak flows to meet pre-project conditions. The approved drainage plan shall be incorporated into the proposed Project.
Noise	**MM NOI-1:** During construction activities for all Master Plan uses, the applicant shall require its construction contractors to adhere to the following noise attenuation requirements: • Construction activities shall be limited to the hours between 7 a.m. to 8 p.m. daily. The City of Manteca Director of Public Works shall have the discretion to permit construction activities to occur outside of allowable hours if compelling circumstances warrant such an exception (e.g., weather conditions necessary to pour concrete). • All construction equipment shall use noise-reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer. If no noise-reduction features were installed by the manufacturer, then the contractor shall require that at least a muffler be installed on the equipment. • Construction staging and heavy equipment maintenance activities shall be performed a minimum distance of 300 feet from the nearest residence, unless safety or technical factors take precedence (e.g., an equipment breakdown). • A 10-foot-high construction noise barrier shall be installed along the edge of the Master Plan area within 300 feet of any offsite residence prior to start of grading activities. The noise barrier shall either be constructed of a minimum 0.5-inch plywood or utilize acoustical blankets with a minimum Sound Transmission Class of 12. The barrier shall remain in place until noise intensive aspects of construction are completed. **MM NOI-4:** During Master Plan operations, the use of street sweepers and mechanical landscape maintenance equipment (lawnmowers, leaf blowers, etc.) shall be prohibited between the hours of 10 p.m. and 7 a.m.
Public Services	**MM PSU-1:** Prior to issuance of building permits for any Master Plan uses, the Project applicant shall provide the City of Manteca will all applicable fire protection development fees in accordance with the latest adopted fee schedule.

Environmental Topic	*Mitigation Measure Adopted by the City*
Transportation	**MM TRANS-1:** Prior to issuance of building permits for each Master Plan use, the applicant shall pay all transportation-related fees in accordance with the latest adopted fee schedule at the time permits are sought. Such fees shall include, but not be limited to, the City of Manteca Public Facilities Implementation Plan fee and the San Joaquin County Regional Transportation Impact Fee. **MM TRANS-4a:** Prior to site plan review for each Master Plan use, the applicant shall consult with the City of Manteca Community Development Department about appropriate frontage improvements. All necessary frontage improvements shall be depicted on the final site plan and implemented as part of site development. **MM TRANS-6a:** Prior to site plan review for each Master Plan light industrial use, the applicant shall consult with the City of Manteca Community Development Department, Manteca Transit, and the San Joaquin Regional Transit District about the inclusion of appropriate transit facilities (turnouts, shelters, etc.) or services (e.g., an employee shuttle). If transit facilities are deemed to be necessary, they shall be provided on the final site plan. If transit services are deemed to be necessary, the applicant shall prepare a service plan and submit it to the City of Manteca for review and approval. The approved plan shall be incorporated into the project. To the extent feasible, transit facilities and services shall be coordinated among Master Plan uses to maximize efficiency and effectiveness. **MM TRANS-6b:** Prior to site plan review for each Master Plan light industrial use, the applicant shall consult with the City of Manteca Community Development Department about the inclusion of appropriate bicycle facilities (racks, lockers, etc.). If bicycle facilities are deemed to be necessary, such facilities shall be provided on the final site plan. **MM TRANS-6c:** Prior to site plan review for each Master Plan light industrial use, the applicant shall consult with the City of Manteca Community Development Department about the inclusion of appropriate pedestrian facilities. If pedestrian facilities are deemed to be necessary, such facilities shall be provided on the final site plan. **MM TRANS-7:** Prior to issuance of grading permits for each Master Plan use, the applicant shall submit a Construction Traffic Control Plan to the City of Manteca for review and approval. The plan shall identify the timing and routing of all major construction equipment and trucking to avoid potential traffic congestion and delays on the local street network. The plan shall encourage the use of Interstate 5 (I-5), Roth Road, Airport Way, and Lathrop Road wherever practical. Anticipated temporary road closures should be identified, along with safety measures and detours. If necessary, construction equipment and materials deliveries shall be limited to off-peak hours to avoid conflicts with local traffic circulation. The plan shall also identify suitable locations for construction worker parking.

Environmental Topic	*Mitigation Measure Adopted by the City*
Utilities	**MM PSU-3a:** Prior to issuance of building permits for each Master Plan use, the applicant shall prepare and submit documentation to the City of Manteca for review and approval identifying a non-potable irrigation system that is separate from the potable water systems. The non-potable irrigation system shall use non-potable well water until recycled water is available, at which point it shall be converted to use recycled water. **MM PSU-3b:** Prior to issuance of building permits for each Master Plan use, the applicant shall prepare and submit documentation to the City of Manteca for review and approval identifying that all appropriate and feasible water conservation measures are incorporated into the proposed use(s). The approved measures shall be incorporated into the final development plans. Examples of water conservation measures include but are not limited to: • Drought-tolerant landscaping or xeriscaping • Water efficient irrigation systems (drip irrigation, bubbler/soaker systems, hydrozones, evapotranspiration controllers, etc.) • Sensor-activated low-flow fixtures (e.g., faucets, urinals, and toilets) **MM PSU-6a**: Prior to issuance of building permits for any building developed pursuant to the Master Plan, the Project applicant shall retain a qualified contractor to perform construction and demolition debris recycling. Following the completion of construction activities, the Project applicant shall provide documentation to the satisfaction of the City of Manteca demonstrating that construction and demolition debris was recycled. **MM PSU-6b**: Prior to issuance of building permits for each building developed pursuant to the Master Plan, the Project applicant shall provide information to the City of Manteca describing the methods by which recycling and waste diversion activities shall be achieved. This information shall include but is not limited to the type and location of facilities necessary to collect and store recyclable materials, contractors who would pick-up recyclable and reusable materials, and how recycling and waste diversion activities would be integrated into operational practices. To the extent feasible, centralized recycling facilities are encouraged to enhance the ease and efficiency of such practices. The approved facilities and practices shall be incorporated into the uses envisioned by the Master Plan.

SOURCE: NORTHWEST AIRPORT WAY MASTER PLAN DRAFT AND FINAL EIRS

GENERAL PLAN AND ZONING DESIGNATIONS

The Project site is designated Industrial (LI) by the Manteca General Plan Land Use Map. According to the City of Manteca 2023 General Plan, the LI designation provides for industrial parks, warehouses, distribution centers, light manufacturing, public and quasi-public uses and similar and compatible uses.

The Project site is zoned MP – Master Plan for the City of Manteca Zoning Map. The purpose of the MP - Master Plan Zoning District is to establish a process for the consideration and regulation of areas suitable for proposed comprehensive development with detailed development plans and of those areas that require special planning.

The existing General Plan land uses and the zoning designations are shown on Figure 7. No General Plan amendment or zoning change is required for the proposed Project.

REQUESTED ENTITLEMENTS AND OTHER APPROVALS

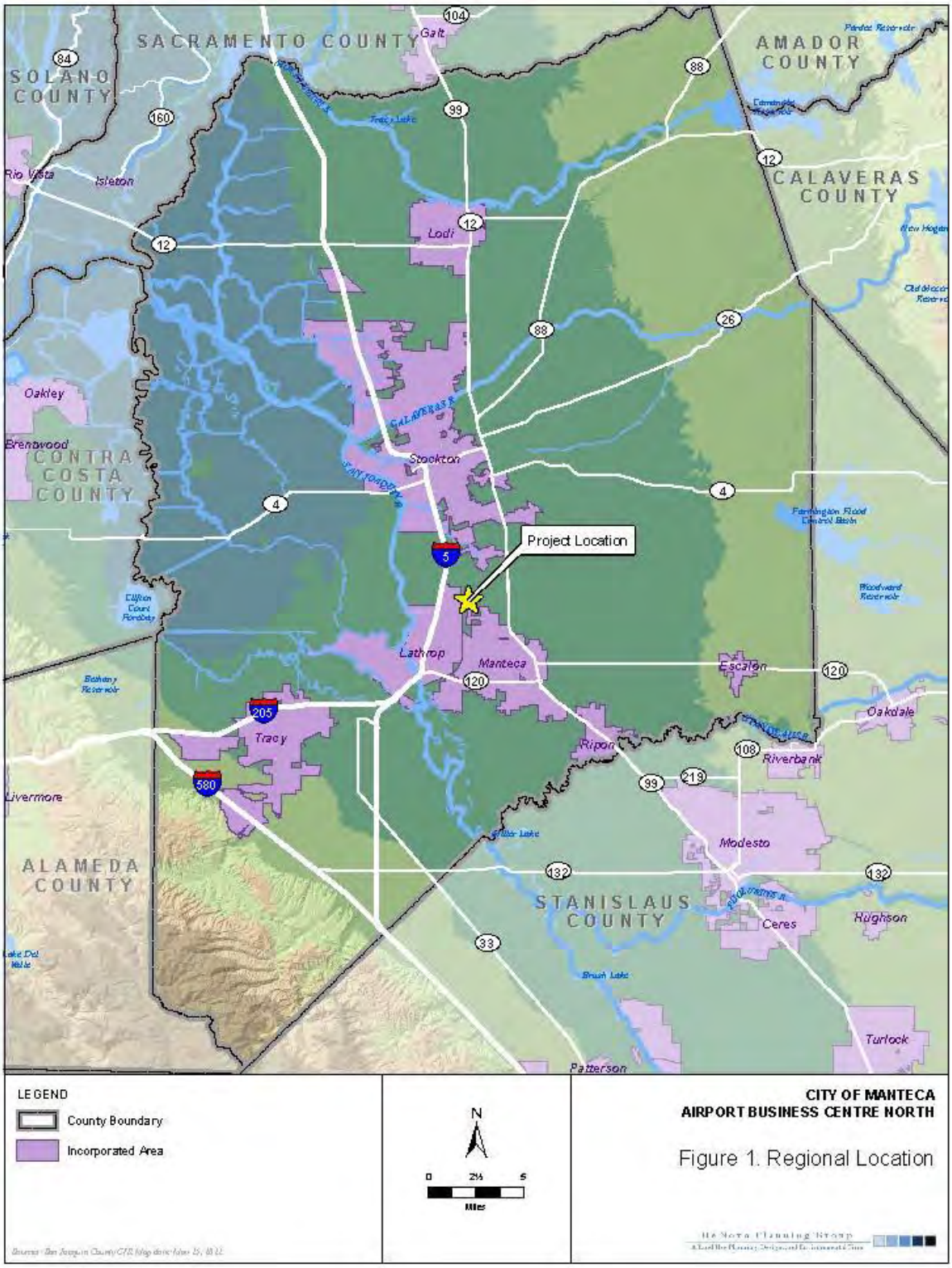
The City of Manteca is the Lead Agency for the proposed Project, pursuant to the State CEQA Guidelines, Section 15050.

This document will be used by the City of Manteca to take the following actions:

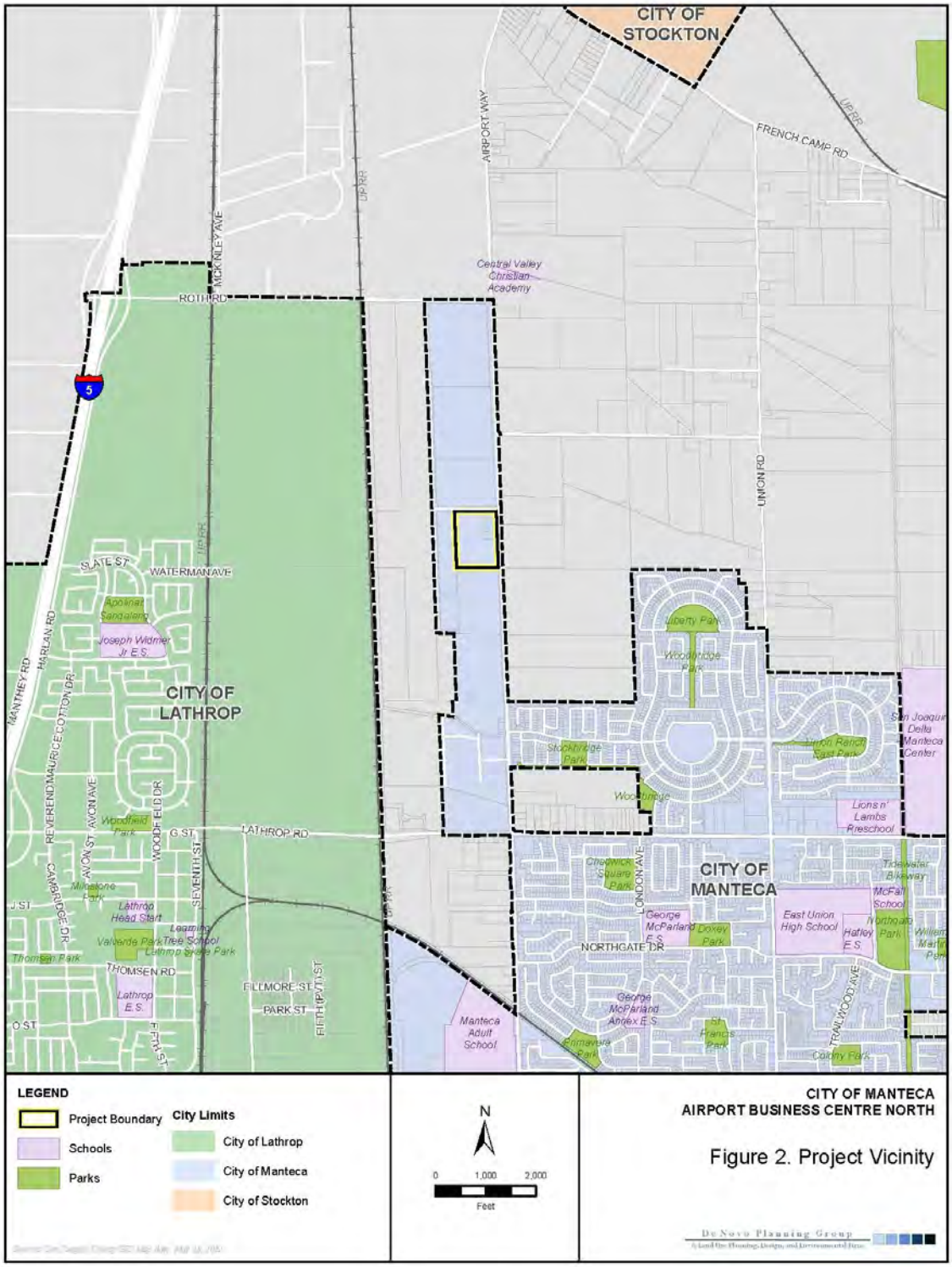
- Adoption of the Mitigated Negative Declaration (MND);
- Adoption of the Mitigation Monitoring and Reporting Program;
- City review and approval of the proposed Grading and Improvement Plans; and
- City Site Plan & Design Review (SPC).

The following agencies may be required to issue permits or approve certain aspects of the proposed Project:

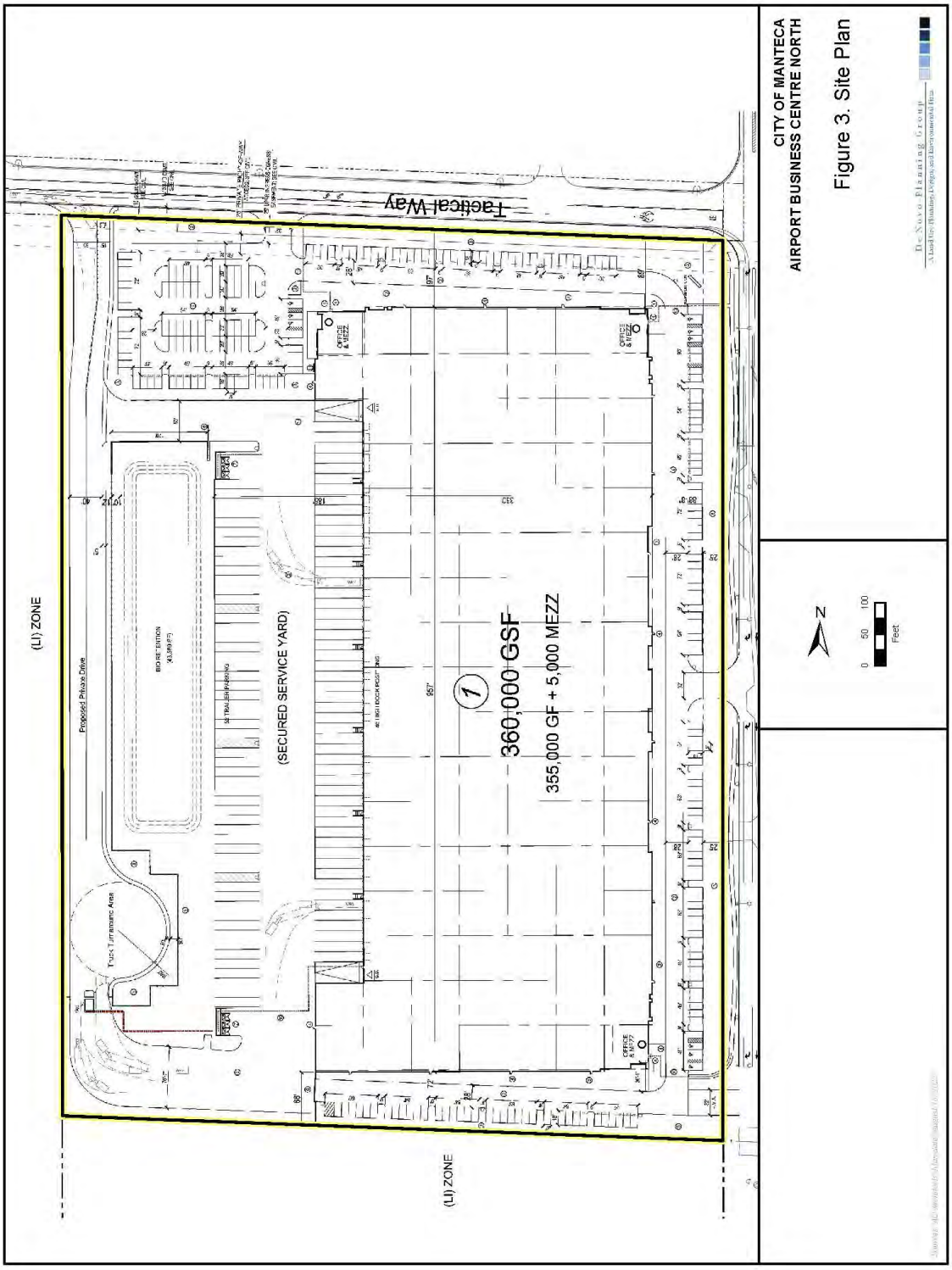
- Regional Water Quality Control Board (RWQCB) – Construction activities would be required to be covered under the National Pollution Discharge Elimination System (NPDES);
- RWQCB – The Storm Water Pollution Prevention Plan (SWPPP) would be required to be approved prior to construction activities pursuant to the Clean Water Act;
- San Joaquin Valley Air Pollution Control District (SJVAPCD) – Approval of construction-related air quality permits;
- San Joaquin Council of Governments (SJCOG) – Review of project application to determine consistency with the San Joaquin County Multi-Species Habitat, Conservation, and Open Space Plan (SJMSCP).


SACRAMENTO COUNTY
SOLANO COUNTY
AMADOR COUNTY
CALAVERAS COUNTY
CONTRA COSTA COUNTY
ALAMEDA COUNTY
STANISLAUS COUNTY
Galt
Rio Vista
Isleton
Lodi
Oakley
Brentwood
Stockton
Project Location
Lathrop
Manteca
Escalon
Tracy
Ripon
Oakdale
Riverbank
Modesto
Ceres
Hughson
Turlock
Patterson
Livermore
LEGEND
County Boundary
Incorporated Area
N
0 2½ 5
Miles
CITY OF MANTECA
AIRPORT BUSINESS CENTRE NORTH
Figure 1. Regional Location

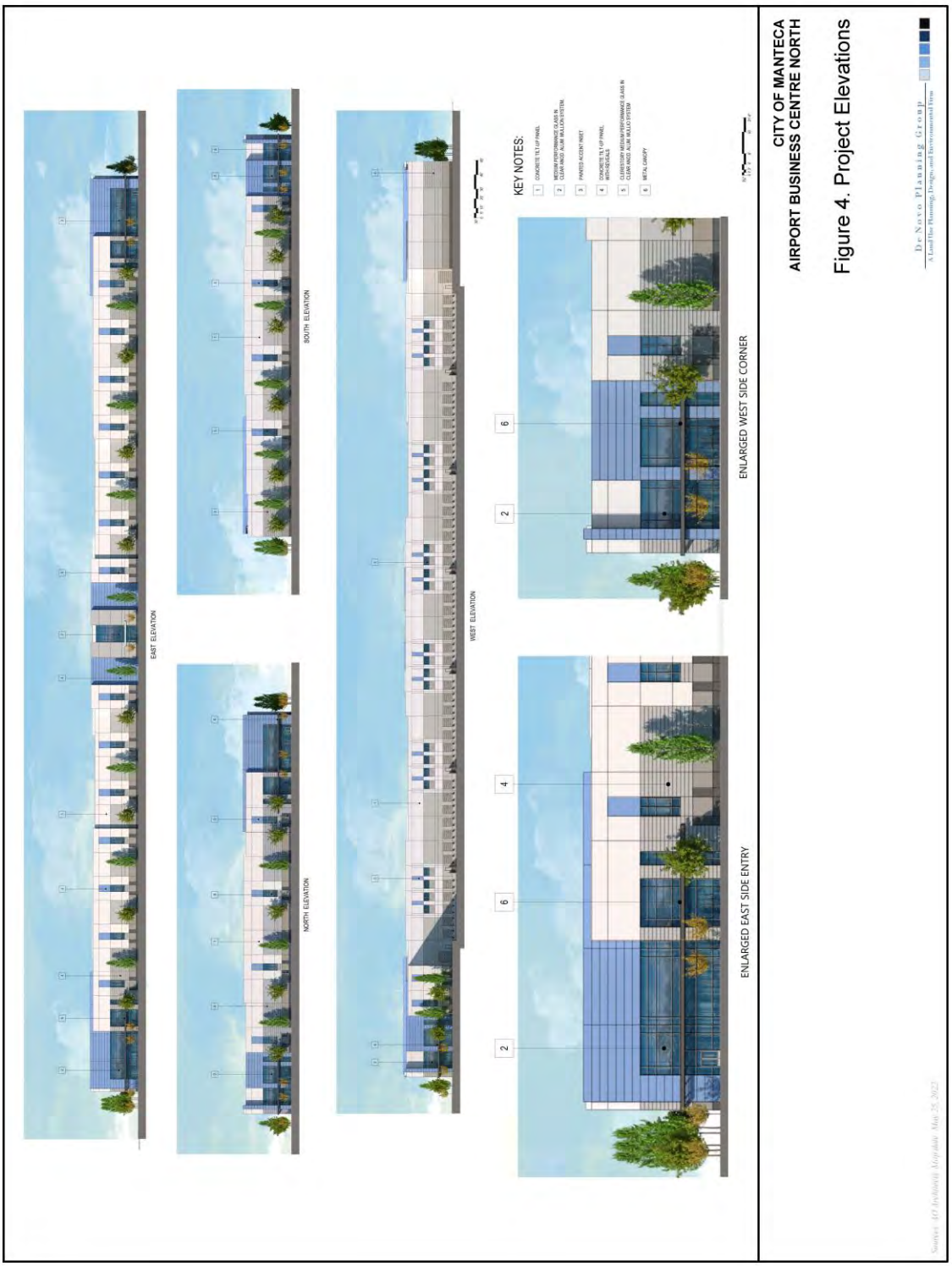
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CITY OF STOCKTON
FRENCH CAMP RD
AIRPORT WAY
UPRR
MCKINLEY AVE
ROTH RD
Central Valley Christian Academy
5
UNION RD
SLATE ST
WATERMAN AVE
Apolinar Sangalang
Joseph Widmer Jr E.S.
MANTHEY RD
HARLAN RD
CITY OF LATHROP
REVEREND MAURICE EDITION DR
AVON AVE
WOODFIELD DR
Woodfield Park
G ST
LATHROP RD
SEVENTH ST
CANADA DR
Milestone Park
Lathrop Head Start
Learning Tree School
Valverde Park
Lathrop Skate Park
Thomsen Park
THOMSEN RD
Lathrop E.S.
FILLMORE ST
PARK ST
FIFTH (PTL) ST
Liberty Park
Woodbridge Park
Stockbridge Park
Union Ranch East Park
San Joaquin Delta Manteca Center
Woodbridge
Lions n' Lambs Preschool
Chadwick Square Park
LONDON AVE
CITY OF MANTECA
Tidewater Bikeway
McFall School
George McParland E.S.
Doxey Park
East Union High School
Hatley E.S.
Northgate Park
NORTHGATE DR
George McParland Annex E.S.
St. Francis Park
TRAILWOOD AVE
Manteca Adult School
Primavera Park
Country Park
LEGEND
Project Boundary
Schools
Parks
City Limits
City of Lathrop
City of Manteca
City of Stockton
N
0
1,000
2,000
Feet
CITY OF MANTECA
AIRPORT BUSINESS CENTRE NORTH
Figure 2. Project Vicinity
De Novo Planning Group

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CITY OF MANTECA
AIRPORT BUSINESS CENTRE NORTH
Figure 3. Site Plan
Tactical Way
(LI) ZONE
(SECURED SERVICE YARD)
360,000 GSF
355,000 GF + 5,000 MEZZ
Proposed Private Drive
Truck Turnaround Area
(LI) ZONE
N
0
50
100
Feet

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CITY OF MANTECA
AIRPORT BUSINESS CENTRE NORTH
Figure 4. Project Elevations
De Novo Planning Group
EAST ELEVATION
SOUTH ELEVATION
NORTH ELEVATION
WEST ELEVATION
KEY NOTES:
ENLARGED WEST SIDE CORNER
ENLARGED EAST SIDE ENTRY

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SITE PHOTO 2
SITE PHOTO 4
SITE PHOTO 1
SITE PHOTO 3
SITE PHOTO 5
KEY PLAN
N
SITE
INTERMODAL WAY
SOUTH AIRPORT WAY
TACHI RAIL WAY
1
2
3
4
5
CITY OF MANTECA
AIRPORT BUSINESS CENTRE NORTH
Figure 5. Site Photos
De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

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BOWMAN RD
BRIGGS RD
ROTH RD
MANILA RD
FREWERT RD
KLO RD
MANTHEY RD
HARLAN RD
OLD HARLAN RD
MCKINLEY AVE
PRIEST RD
GALLIN RD
JANET RD
KRELL LN
WATTERS RD
PRIBBLE LN
RAYNEST
FISK RD
FRENCH CAMP RD
SWALL RD
GARNER LN
UNION RD
COELHO RD
LOVELACE RD
INTERMODAL WAY
TACTICAL WAY
AIRPORT WAY
OLIVINE AVE
DEERWOOD AVE
OPAL ST
KIRKWOOD AVE
STONEBRIDGE LN
SHADYWOOD AVE
REVEREND MAURICE COTTON DR
GREENHILL ST
PINECREST ST
AVON AVE
LONG BARN DR
G ST
H ST
JONQUIL DR
AVON ST
FIFTH ST
SIXTH ST
SEVENTH ST
J ST
LATHROP RD
ARBOR BROOK DR
CHESTNUT HILL DR
ROSEBERRY AVE
EDGEBROOK LN
SHADY OAK ST
ELMBROOK WAY
AUTUMN OAKS ST
DAISYWOOD DR
ABERCORN ST
GLENOAKS ST
SHADOW BERRY DR
BELLE GLADE LN
PEPPER TREE LN
MAPLE VALLEY ST
EXETER DR
LONDON AVE
HYDE PARK LN
MY WAY
SPRAGUE ST
HISTON ST
PASADO AVE
HASTINGS DR
PICADILLY WAY
LEGEND
Project Boundary
Truck Ingress/Egress
N
0 500 1,000
Feet
CITY OF MANTECA
AIRPORT BUSINESS CENTRE NORTH
Figure 6. Truck Ingress/Egress from Site

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CITY OF MANTECA
AIRPORT BUSINESS CENTRE NORTH
Figure 7. General Plan and Zoning Designations
De Novo Planning Group
LEGEND
Manteca Sphere of Influence
Manteca City Limits
Project Boundary
City of Manteca General Plan Land Use Designations
HI: Heavy Industrial
LI: Light Industrial
LDR: Low Density Residential
P: Park
PQP: Public/Quasi-Public
UR-AG: Urban Reserve (Agriculture)
UR-LI: Urban Reserve (Light Industrial)
San Joaquin County Zoning
AG-40: General Agriculture (40-ac min)
City of Manteca Zoning
MP: Centre Point Master Plan
N
0 200 400
Feet
LOVERIDGE RD
AIRPORT WAY
TACTICAL WAY
INTERMODAL WAY
UR-LI
UR-AG
HI
LI
LDR
P
PQP
MP
AG-40
AG-40

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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

None of the environmental factors listed below would have potentially significant impacts as a result of development of this project, as described on the following pages.

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

DETERMINATION

On the basis of this initial evaluation:

	I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
X	I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
	I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Signature Date

EVALUATION INSTRUCTIONS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).
5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a) Earlier Analysis Used. Identify and state where they are available for review.
    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9) The explanation of each issue should identify:
    a) The significance criteria or threshold, if any, used to evaluate each question; and
    b) The mitigation measure identified, if any, to reduce the impact to less than significant.

EVALUATION OF ENVIRONMENTAL IMPACTS

In each area of potential impact listed in this section, there are one or more questions which assess the degree of potential environmental effect. A response is provided to each question using one of the four impact evaluation criteria described below. A discussion of the response is also included.

- Potentially Significant Impact. This response is appropriate when there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries, upon completion of the Initial Study, an EIR is required.
- Less than Significant With Mitigation Incorporated. This response applies when the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact". The Lead Agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.
- Less than Significant Impact. A less than significant impact is one which is deemed to have little or no adverse effect on the environment. Mitigation measures are, therefore, not necessary, although they may be recommended to further reduce a minor impact.
- No Impact. These issues were either identified as having no impact on the environment, or they are not relevant to the project.

ENVIRONMENTAL CHECKLIST

This section of the Initial Study incorporates the most current Appendix "G" Environmental Checklist Form contained in the CEQA Guidelines. Impact questions and responses are included in both tabular and narrative formats for each of the 21 environmental topic areas.

I. AESTHETICS

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

Responses to Checklist Questions

Responses a), c): The City of Manteca General Plan does not specifically designate any scenic viewsheds within the city. The existing Manteca General Plan does, however, note Manteca's scenic environmental resources including the San Joaquin River environment, and scenic vistas of the Coast Range and the Sierra.

For analysis purposes, a scenic vista can be discussed in terms of a foreground, middleground, and background viewshed. The middleground and background viewshed is often referred to as the broad viewshed. Examples of scenic vistas can include mountain ranges, valleys, ridgelines, or water bodies from a focal point of the forefront of the broad viewshed, such as visually important trees, rocks, or historic buildings. An impact would generally occur if a project would change the view to the middle ground or background elements of the broad viewshed, or remove the visually important trees, rocks, or historic buildings in the foreground.

The Project site itself does not provide any visual resources that would be considered a scenic vista. This Project site contains annual grassland and developed buildings associated with the agricultural operation, which is not unique to the surrounding visual setting. The proposed Project does not contain resources that are exemplary of the history of the area (such as historic structures or landmarks). Views of the Project site are not unique in the region.

The Project site is generally flat with unobstructed view of the surrounding agricultural lands, the Lathrop Intermodal Terminal, and residential developments. Neither the Project site nor any of the surrounding land uses contains features typically associated with scenic vistas (e.g., ridgelines, peaks, overlooks). Therefore, little opportunity exists for project activities to obscure views of scenic vistas that may be located within the immediate area of the Project site.

More distant views of the Coast Ranges (including Mt. Diablo) and the Sierra Nevada Mountains would largely be unaffected by the development of the Project site because of the distance and limited visibility of these features. Furthermore, the City of Manteca does not identify views of these features to be "protected" and, therefore, any obstruction that does occur would not be significant.

Chapter 9, Design Standards and Guidelines of the Master Plan specifically identifies City design expectations in the context of new industrial and commercial developments within the Project site. Design standards are required of all developments. Design guidelines are recommended measures that help ensure quality design. Together, the standards and guidelines address the placement and appearance of buildings, circulation, parking and loading, landscape design, fencing and screening, signage, exterior lighting, and sustainable design practices.

The design standards from the Northwest Airport Way Master Plan are to be applied to the proposed Project in conjunction with the development standards listed in the Manteca Municipal Code. Where differences occur between the design standards of the Master Plan and the Manteca Municipal Code, the design standards of the Master Plan shall prevail. The design standards and guidelines are to be used by applicants and their consultants in the formulation of specific development proposals. The standards and guidelines will also be used by City of Manteca staff in the review of development proposals.

Upon build-out, the proposed Project would be of similar visual character to nearby and adjacent developments (such as existing light industrial and commercial uses nearby). For motorists travelling along nearby roadways, the proposed Project would blend into existing and future development and would not present unexpected or otherwise unpleasant aesthetic values within the general project vicinity. Furthermore, the proposed Project would also be consistent with the applicable design standards and development standards. Therefore, implementation of the proposed Project would have a ***less than significant*** impact relative to these topics.

Response b): The Project site is not located within view of a state scenic highway. Only one highway section in San Joaquin County is listed as a Designated Scenic Highway by the Caltrans Scenic Highway Mapping System; the segment of Interstate 580 from Interstate 5 to State Route 205. The City of Manteca is not visible from this roadway segment. Therefore, the proposed Project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. Implementation of the proposed Project would have ***no impact*** relative to this topic.

Response d): The Project site contains existing sources of light and glare associated with the existing agricultural business operation. Additionally, nearby land uses, such as the light industrial uses located to the north of the Project site, include outdoor lighting. The Union Pacific Railroad Lathrop Intermodal Terminal, the Sharpe Army Depot, scattered rural residential development, and Union Ranch also include outdoor lighting. Other nearby sources of light include the streetlights at the intersections of Airport Way and Roth Road, Airport Way and Daisywood Drive, and Airport Way and Lathrop Road, as well as vehicles traveling along Airport Way, Roth Road, Lathrop Road, Daisywood Drive, and Lovelace Road.

The proposed Project would include the installation of freestanding and building-mounted lighting associated with the light industrial uses. Such lighting would include lighting in parking lots, along pathways, and mounted on buildings for safety and security reasons. As such, the proposed Project may create a source of nighttime light, which may affect nighttime views in the surrounding area.

The Northwest Airport Way Master Plan includes Design Standards and Guidelines to minimize light impacts. Specifically, all lighting in the Northwest Airport Way Master Plan area (which includes the Project site) must comply with candle foot standards established in the Manteca Municipal Code. Night lighting in the Master Plan area shall be limited to that necessary for operations, security, safety, and identification, and it shall be screened from adjacent residential areas and not be directed in an upward manner or beyond the boundaries of the parcel on which the buildings are located. Specific design standards also apply to signage in the Master Plan area that requires signs to be illuminated only by backlighting of raised letters, internally illuminated individual letters, or by low-intensity spotlights that are screened from direct view. Internally illuminated box or can signs are prohibited in the Master Plan area. Signs are to be glare-free and light fixtures must be screened from view. Additional best management practices to minimize light trespass are described in the design guidelines and include the following recommended measures:

- Light bulbs or tubes should not be exposed.
- Light shields should reduce the spillage of light onto adjacent properties.
- Lighting should be adequate but not overly bright.
- Security lighting may be indirect or diffused and should be shielded or directed away from a residential district.

As the Project site is included in the Master Plan area, it will be required to comply with the above standards.

In addition, all street lighting would have to comply with the City of Manteca lighting standards. Section 17.50.060 of the Manteca Municipal Code identifies general lighting standards for light shielding, illumination levels, and nuisance prevention.

In summary, existing standards, including the Northwest Airport Way Master Plan Design Standards and Guidelines, establish a comprehensive and robust set of standards to ensure that the proposed Project does not introduce substantial sources of light and glare to the project vicinity. Therefore, implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

II. AGRICULTURE AND FORESTRY RESOURCES

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 1222(g)) or timberland (as defined in Public Resources Code section 4526)?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

Responses to Checklist Questions

Response a): The project site includes land designated as Prime Farmland and Farmland of Local Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency (California Department of Conservation, 2018). The open pasture/annual grassland is the area designated as Prime Farmland, while the beef, sheep, goat, and poultry operations of Riella Farms is designated as Farmland of Local Importance.

The proposed project would result in the conversion of this designated Prime Farmland and Farmland of Local Importance to a non-agricultural use. The loss of this farmland was analyzed under the Northwest Airport Way Master Plan EIR and determined to be a significant and unavoidable impact. The City adopted a Statement of Overriding Considerations and certified the Northwest Airport Way Master Plan EIR with a significant and unavoidable conclusion under this environmental topic. The proposed project is consistent with the Northwest Airport Way Master Plan in terms of the loss of prime farmland and is subject to all mitigation measure and conditions associated with the Northwest Airport Way Master Plan.

The proposed project is subject to the City's agricultural mitigation fee program and the SJMSCP. The City's agricultural mitigation fee program helps offset the conversion of Important Farmland by funding the acquisition of irrevocable instruments on active farmland (e.g., conservation easements or farmland deed restrictions), to ensure such land remains in agricultural use in perpetuity. The SJMSCP, while created more specifically for the protection of biological resources, functionally serves as compensation and mitigation for impacts to agricultural resources when agricultural land or easements are purchased and preserved for the benefit of wildlife. This occurs when SJMSCP fees are paid to SJCOG who uses the funds to preserve open space land of comparable types throughout the County, often coordinating with other private or

public land trusts to purchase conservation easements or buy land outright for preservation. This is more specifically addressed under the biological discussion later in this document.

Pursuant to Mitigation Measure AG-1 below, the project proponent would be required to pay the established fees on a per-acre basis for the loss of important farmland. Fees paid toward the City's program shall be used to fund conservation easements on comparable or better agricultural lands to provide compensatory mitigation. Therefore, with implementation of the following mitigation measure the proposed project would be reduced to a ***less than significant*** impact relative to this issue.

Mitigation Adopted by the City

Mitigation Measure AG-1*: At the time building permits are sought for any Master Plan contemplated use, the project applicant shall pay the required City of Manteca agricultural mitigation fee to help offset the conversion of Important Farmland pursuant to Manteca Municipal Code Chapter 13.42.*

Response b): The Project site does not include any land in a Williamson Act contract. The Project site is designated as LI by the Manteca General Plan Land Use Map and is zoned MP. The proposed Project does not conflict with existing zoning for agricultural use, or a Williamson Act contract. Therefore, implementation of the proposed Project would have ***no impact*** relative to this issue.

Response c): The Project site is not forest land (as defined in Public Resources Code section 1222(g)) or timberland (as defined in Public Resources Code section 4526). The proposed Project would not conflict with existing zoning for, or cause rezoning of, forest land or timberland. Implementation of the proposed Project would have ***no impact*** relative to this issue.

Response d): The Project site is not forest land. The proposed Project would not result in the loss of forest land or conversion of forest land to non-forest use. Implementation of the proposed Project would have ***no impact*** relative to this issue.

Response e): The Project site does not contain forest land, and there is no forest land in the vicinity of the Project site. The Project site is included in the Northwest Airport Way Master Plan area and is designated LI and is zoned MP. The proposed Project does not involve any other changes in the existing environment not disclosed under the previous responses which, due to their location or nature, could result in conversion of farmland, to non-agricultural use, or conversion of forest land to non-forest use. Therefore, implementation of the proposed Project would have ***no impact*** relative to this issue.

III. AIR QUALITY

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

The Project site is located within the San Joaquin Valley Air Pollution Control District (SJVAPCD). This agency is responsible for monitoring air pollution levels and ensuring compliance with federal and state air quality regulations within the San Joaquin Valley Air Basin (SJVAB) and has jurisdiction over most air quality matters within its borders.

Responses to Checklist Questions

Responses a), b): Air quality emissions would be generated during operation and construction of the proposed Project. Because of the region's non-attainment status for ozone, $PM_{2.5}$, and PM_{10}, if project-generated emissions of either of the ozone precursor pollutants (i.e., ROG and NOx), PM_{10}, or $PM_{2.5}$ would exceed the SJVAPCD's significance thresholds, then the proposed Project uses would be considered to conflict with the attainment plans. Discussion of construction and operational-related air quality impacts is provided below.

Separately, if the proposed Project uses would result in a change in land use and corresponding increases in vehicle miles traveled, they may result in an increase in vehicle miles traveled that is unaccounted for in regional emissions inventories contained in regional air quality control plans. The proposed Project neither includes a change in land use, nor does it increase vehicle miles traveled compared to what had previously been planned for within the Northwest Airport Way Master Plan EIR (see section XVII. Transportation for further detail on project VMT).

Construction

PM_{10} emitted during construction can vary greatly depending on the level of activity, the specific operations taking place, the equipment being operated, local soils, weather conditions, and other factors, making quantification difficult. Despite this variability in emissions, experience has shown that there are a number of feasible control measures that can be reasonably implemented to significantly reduce PM_{10} emissions from construction activities.

Construction would result in numerous activities that would generate dust. The fine, silty soils on the Project site and often strong afternoon winds exacerbate the potential for dust, particularly in the summer months. Impacts would be localized and variable. Construction impacts would last for a period of approximately one year. The initial phase of project construction would involve grading and site preparation activities, followed by paving, building construction, and architectural coatings. Construction activities that could generate dust and

vehicle emissions are primarily related to grading, soil excavation, and other ground-preparation activities.

Control measures are required and enforced by the SJVAPCD under Regulation VIII. The SJVAPCD considers construction-related emissions from all projects in this region to be mitigated to a less than significant level if SJVAPCD-recommended PM_{10} fugitive dust rules and equipment exhaust emissions controls are implemented. The proposed Project would be required to comply with all applicable measures from SJVAPCD Regulation VIII. In addition, Table AIR-1 (below) provides the results of the construction-related emissions modeling results from CalEEMod.

Table AIR-1: Project Construction Criteria Pollutant Emissions (tons/year)

Emissions Type	*Proposed Project Emissions*	*SJVAPCD Threshold*	*Above Threshold in Proposed Project?*
ROG	0.9357	10	N
NO_x	2.9049	10	N
CO	3.5265	100	N
PM_{10}	0.6160	15	N
$PM_{2.5}$	0.2360	15	N

Source: CalEEMod, v.2020.4.0

In addition, the proposed Project would also implement construction-related mitigation measures, in accordance with the Northwest Airport Way Master Plan EIR (i.e. Mitigation Measures AIR-1a and AIR-1b, which are provided below). However, it should be noted that, for the sake of a conservative estimate, as well as due to modeling limitations, not all of the measures contained in the construction-related mitigation measures list were modeled. Nevertheless, even without modeling some of the required measures that would further reduce construction-related emissions beyond what is provided in Table AIR-1, the proposed Project construction activities would not exceed the applicable SJVAPCD thresholds of significance for criteria pollutants.

Operational

Operational-related criteria pollutant emissions would be generated primarily from passenger (employee) vehicle, delivery van, and heavy-duty truck travel generated by the proposed Project, as well as electricity and other energy usage on-site. Table AIR-1, below, provides the unmitigated results of the operational-related emissions modeling results from CalEEMod.

Table AIR-2: Project Operational Criteria Pollutant Emissions (tons/year)

Emissions Type	*Proposed Project Emissions*	*SJVAPCD Threshold*	*Above Threshold in Proposed Project?*
ROG	2.1223	10	N
NO_x	3.6900	10	N
CO	6.0351	100	N
PM_{10}	1.5530	15	N
$PM_{2.5}$	0.4446	15	N

Source: CalEEMod, v.2020.4.0

As shown above, the proposed Project would not exceed the applicable SJVAPCD thresholds associated with operational emissions. Nevertheless, the proposed Project would be required to implement the additional mitigation measures for the operational phase of the project (i.e.

Mitigation Measure AIR-1c, AIR-1d, and through AIR-6), in accordance with the applicable mitigation measures provided in the Northwest Airport Way Master Plan EIR.

Therefore, with implementation of the following mitigation measures, the proposed Project would have a ***less than significant*** impact related to the potential to conflict with or obstruct implementation of the applicable air quality plan, or to result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

Mitigation Adopted by the City

Mitigation Measure AIR-1a*: Prior to issuance of grading permits, as applicable, the Project applicant shall provide information to the City of Manteca describing the methods by which the following measures will be complied with:*

- *Off-road equipment used onsite shall achieve a fleet-average emissions equal to or less than the Tier II emissions standard of 4.8 grams of NOx per horsepower hour. This can be achieved through any combination of uncontrolled engines and engines complying with Tier II and above engine standards. Tier II emission standards are set forth in Section 2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 Code of Federal Regulations.*
- *Construction equipment shall be properly maintained at an offsite location; maintenance shall include proper tuning and timing of engines. Equipment maintenance records and data sheets of equipment design specifications shall be kept on-site during construction.*
- *Onsite construction equipment shall not idle for more than 5 minutes in any one hour.*
- *During the building phase, onsite electrical hook ups shall be provided for electric construction tools including saws, drills and compressors, to eliminate the need for diesel powered electric generators.*
- *Construction workers shall be encouraged to carpool to and from the construction site to the greatest extent practical. Workers shall be informed in writing and a letter shall be placed on file in the City office documenting efforts to carpool.*

Mitigation Measure AIR-1b*: During the architectural coating phase, paints with a volatile organic compound content less than 10 grams per liter shall be used.*

Mitigation Measure AIR-1c*: Prior to issuance of building permits, the Project applicant shall demonstrate compliance with all applicable requirements of San Joaquin Valley Air Pollution Control District, Rule 9510 via the submittal of a Rule 9510 Implementation Plan to the City of Manteca for review and approval. The implementation plan shall achieve a 33-percent reduction in NOx and a 45-percent reduction in PM_{10} over the first 10 years of operations through the use of onsite emissions reduction measures or through the payment of offsite mitigation fees to the SJVAPCD for purchase of emission reductions. The requirements of the approved implementation plan shall be incorporated into the proposed Project.*

Mitigation Measure AIR-1d*: Prior to approval of the final site plan, the Project applicant shall demonstrate that the following anti-idling measures would be implemented:*

- *Provide available electricity hookups for trucks in the loading dock areas.*

- *Signs shall be posted in dock areas advising drivers that idling shall not occur for more than 3 minutes.*
- *Telephone numbers of the building facilities manager and the California Air Resources Board shall be posted on signs at truck entrances to report idling violations.*

Mitigation Measure AIR-6*: Prior to final site plan approval for any use that includes food service (i.e., restaurants, cafeterias, etc.), the applicant shall demonstrate compliance with SJVAPCD Rules 4102 (Nuisance) and 4692 (Commercial Charbroiling) to the extent that these rules are applicable. Compliance may entail the installation of kitchen exhaust vents, exhaust filtration systems, or other odor-reduction measures in accordance with accepted engineering practice. The approved plans shall be incorporated into the proposed Project.*

Response c): Sensitive receptors are those individuals within the population that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptors include children, the elderly, and those with pre-existing serious health problems affected by air quality, and sensitive receptor locations include schools, parks and playgrounds, day care center, nursing homes, hospitals, and residences. The closest sensitive receptors are the rural residential properties located adjacent to the Project site (to the east), on the opposite side of Airport Way.

A toxic air contaminant (TAC) is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air. However, their high toxicity or health risk may pose a threat to public health even at very low concentrations. In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. This contrasts with the criteria pollutants for which acceptable levels of exposure can be determined and for which the state and federal governments have set ambient air quality standards.

Construction-Related Impacts on Sensitive Receptors: The construction phase of the project would be temporary and short-term, and the implementation of all State, Federal, and SJVAPCD requirements would greatly reduce pollution concentrations generated during construction activities. As shown in Table AIR-1, the proposed Project's construction-related criteria pollutant emissions would not exceed the applicable thresholds. Therefore, dust from construction of the proposed Project would be reduced and would be consistent with SJVAPCD guidance on this topic. Impacts to sensitive receptors during construction would be negligible and this is a ***less than significant*** impact.

Toxic Air Contaminant Impacts on Sensitive Receptors: The proposed Project has the potential to impact nearby sensitive receptors during the proposed Project's construction and operational phases. Specifically, the proposed Project has the potential to generate diesel particulate matter (DPM) from on- and off-road construction vehicles, during the Project' construction phase. In addition, the proposed Project has the potential to impact nearby sensitive receptors during Project operation, due to the proposed Project's generation of trips by heavy-duty diesel trucks, which are also an emitter of DPM. In particular, DPM during Project operation is emitted from on-site heavy-duty truck vehicle circulation and idling, and off-site mobile travel. Combined, these (both construction and operational) sources of DPM have the potential to generate substantial TACs on nearby sensitive receptors, including those located nearest to the Project site. The SJVAPCD has established a screening calculator entitled the "Prioritization Calculator". An estimate of DPM emissions generated by the heavy-duty trucks and delivery vans associated with the proposed Project during Project operation was calculated for on-site mobile and idling emissions, and off-site mobile emissions up to 0.25 miles from the Project site, combined with

the exhaust DPM emissions from both on- and off-road vehicles during the Project's construction phase, amortized over 70 years, in accordance with the California Office of Environmental Health Hazard Assessment (OEHHA) guidance, as recommended by the SJVAPCD. The estimate of DPM emissions were based on the data provided in the Transportation Analysis for the proposed Project, and with diesel particulate matter mobile emission rates from CARB's EMFAC2021 database (for year 2022, San Joaquin County; emission rates for DPM; 10 MPH for on-site truck travel and 55 MPH for off-site truck travel), and from standard heavy-duty truck idling emission rates from CARB.

The results of the screening analysis show that the cancer and non-cancer risks associated with the proposed Project are below the SJVAPCD screening thresholds contained within their Prioritization Calculator. Specifically, the Prioritization Calculator estimates that the prioritization score associated with total cancer risk from proposed project operational DPM would be approximately 4.62, and from construction DPM 1.58[1], for a total of 6.20, well below the SJVAPCD threshold of 10 that would require development of air toxics Health Risk Assessment (HRA) that includes air dispersion modeling. Additionally, non-cancer (i.e. chronic and acute risks) associated with project DPM would also be well below the applicable thresholds for the Maximally Exposed Individual (i.e. greater than or equal to the Hazard Index level of 1). Therefore, the complex air dispersion modeling using software such as AERMOD is not required. See Appendix B for further detail.

Overall, as described, the proposed Project would not exceed the maximum risk values established by the SJVAPCD for TACs, as described above. All receptor types would be below the applicable SJVAPCD significance thresholds. In addition, criteria pollutant emission would be below the applicable SJVAPCD significance thresholds for criteria pollutants, as described under Impacts a) and b). Impacts to sensitive receptors from substantial pollutant concentrations would be a ***less than significant*** impact.

CO Hotspots: Areas of vehicle congestion have the potential to create pockets of CO called hotspots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9.0 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations. Hotspots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds.

Although the SJVAPCD has not established a specific numerical screening threshold for CO impacts, the Bay Area Air Quality Management District (BAAQMD) has established that, under existing and future vehicle emissions rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix (i.e., bridges and tunnels)—in order to generate a substantial CO impact. As described in Section XVII: Transportation, the proposed Project would generate a maximum of approximately 139 AM peak hour trips and 129 PM peak hour trips (for all vehicles), which would be significantly less than the volumes cited above. Thus, the proposed Project would not have the potential to substantially increase CO hotspots at intersections in the vicinity of the Project site, and impacts would be ***less than significant***.

[1] It should be noted that construction-generated sources of DPM emissions would be greater than 100 meters from the nearest sensitive receptor, on average, as measures by Google Earth.

Conclusion
The construction phase of the proposed Project would be temporary and short-term. The proposed Project would not generate significant concentrations of air emissions during construction.

TAC screening using the SJVAPCD's Prioritization Calculator showed that the proposed Project would not exceed the maximum risk values established by the SJVAPCD for TACs. All receptor types would be below the applicable SJVAPCD significance thresholds.

Under existing and future vehicle emissions rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix (i.e., bridges and tunnels)—in order to generate a substantial CO impact. The proposed Project would generate much fewer than such peak hour trips, which would be significantly lower than the thresholds for causing a significant CO impact.

Implementation of the proposed Project would not result in a significant increased exposure of sensitive receptors to localized concentrations of TACs, or create a CO hotspot. This project would have a ***less than significant*** impact relative to this topic.

Response d): The proposed Project would not generate objectionable odors that would adversely affect substantial numbers of people. People in the immediate vicinity of construction activities may be subject to temporary odors typically associated with construction activities (diesel exhaust, hot asphalt, etc.). However, any odors generated by construction activities would be minor and would be short and temporary in duration.

Examples of facilities that are known producers of operational odors include: Wastewater Treatment Facilities, Chemical Manufacturing, Sanitary Landfill, Fiberglass Manufacturing, Transfer Station, Painting/Coating Operations (e.g. auto body shops), Composting Facility, Food Processing Facility, Petroleum Refinery, Feed Lot/Dairy, Asphalt Batch Plant, and Rendering Plant. The proposed Project would not contain any of these land uses. If a project would locate receptors and known odor sources in proximity to each other further analysis may be warranted; however, if a project would not locate receptors and known odor sources in proximity to each other, then further analysis is not warranted.

The proposed Project does not include any of the aforementioned uses. Additionally, construction activities would be temporary and minor. Lastly, other emissions are evaluated in responses a-c), as provided above. As such, with implementation of Mitigation Measure AIR-1a, AIR-1b, AIR-c, AIR-1d, and AIR-6, implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

IV. BIOLOGICAL RESOURCES

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				X
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				X
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

Regional Setting

The City of Manteca is located in the western portion of the Great Valley Geomorphic Province of California. The Great Valley Province is a broad structural trough bounded by the tilted block of the Sierra Nevada on the east and the complexly folded and faulted Coast Ranges on the west. The San Joaquin River is located just south and west of the City. This major river drains the Great Valley Province into the San Joaquin Delta to the north, ultimately discharging into the San Francisco Bay to the northwest.

The City of Manteca is located within the San Joaquin Valley Bioregion, which is comprised of Kings County, most of Fresno, Kern, Merced, and Stanislaus counties, and portions of Madera, San Luis Obispo, and Tulare counties. The San Joaquin Valley Bioregion is the third most populous out of ten bioregions in the state, with an estimated 2 million people. The largest cities are Fresno, Bakersfield, Modesto, and Stockton. Interstate 5 and State Route 99 are the major north-south roads that run the entire length of the bioregion. Habitat in the bioregion includes vernal pools, valley sink scrub and saltbush, freshwater marsh, grasslands, arid plains, orchards, and oak savannah. Historically, millions of acres of wetlands flourished in the bioregion, but stream diversions for irrigation dried all but about five percent. Remnants of the wetland habitats are

protected in this bioregion in publicly owned parks, reserves, and wildlife areas. The bioregion is considered the state's top agricultural producing region with the abundance of fertile soil.

The region has a Mediterranean climate that is subject to cool, wet winters (often blanketed with fog) and hot, dry summers. The average annual precipitation is approximately 13.81 inches. Precipitation occurs as rain most of which falls between the months of November through April, peaking in January at 2.85 inches. The average temperatures range from December lows of 37.5 F to July highs of 94.3 F.

The project site currently is home to Riella Farms, which is a small family-owned agricultural operation that specializes in procuring beef, sheep, goat, and poultry. The business offices and livestock pens are mostly located in the southeastern quadrant of the Project site. This area lacks any quality habitat. There is open pasture located in the southwestern quadrant. This area is characterized as annual grassland, which provides some foraging habitat for wildlife in the vicinity. A rural residence is located in the northeastern quadrant. This area is a mix of developed residential property, with various landscaping features typical of a rural residential property. There is an open pasture and a hay barn located in the northwestern quadrant. The open pasture is characterized as annual grassland, similar to the annual grassland in the southwestern quadrant. The hay barn is a developed structure that separates the north and south pastures. Overall, the Project site is generally flat, with an elevation range of approximately 22 to 25 feet above sea level.

Developed industrial land exists to the immediate north. Existing agricultural land exists to the west and south. A drainage basin exists to the immediate west.

Responses to Checklist Questions

Response a): The following discussion is based on a background search of special-status species that are documented in the California Natural Diversity Database (CNDDB) and the field survey. No special status species were identified by during the field survey. In addition, biological surveys that were conducted as part of the Northwest Airport Way Master Plan EIR determined that no designated critical habitat occurs within the entire Master Plan area.

Figure 8 shows the results of the CNDDB background search within a 9-quad area of the project site (i.e. approximately 630 square miles). Table BIO-1 provides a list of special-status plants and animals that occur within a 9-quad radius of the project site.

TABLE BIO-1: SPECIAL-STATUS WILDLIFE, FISH, AND PLANT SPECIES WHICH MAY OCCUR WITHIN THE PROJECT SITE'S 9-QUAD RADIUS

SPECIES	STATUS (FED/CA/ SJMSCP)	GEOGRAPHIC DISTRIBUTION	HABITAT REQUIREMENTS
INVERTEBRATES			
Vernal pool fairy shrimp *Branchinecta lynchi*	T/--/Yes	Central Valley, central and south Coast Ranges from Tehama County to Santa Barbara County. Isolated populations also in Riverside County	Common in vernal pools; they are also found in sandstone rock outcrop pools
Vernal pool tadpole shrimp *Lepidurus packardi*	E/--/Yes	Shasta County south to Merced County	Vernal pools and ephemeral stock ponds
Sacramento anthicid beetle *Anthicus sacramento*	--/--/No	Found in several locations along the Sacramento and San Joaquin rivers, from Shasta to San Joaquin counties, and at one site along the Feather River	Sand dune area, sand slipfaces among bamboo and willow, but may not depend on these plants.

SPECIES	STATUS (FED/CA/ SJMSCP)	GEOGRAPHIC DISTRIBUTION	HABITAT REQUIREMENTS
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	T/--/Yes	Stream side habitats below 3,000 feet throughout the Central Valley	Riparian and oak savanna habitats with elderberry shrubs; elderberries are the host plant
Crotch bumble bee *Bombus crotchii*	--/C/--	California	Crotch's bumblebee inhabits grassland and scrub areas, requiring a hotter and drier environment than other bumblebee species, and can only tolerate a very narrow range of climatic conditions
Western bumble bee *Bombus occidentalis*	--/C/--	Historically broadly distributed in western North America. Bombus occidentalis occurs along the Pacific coast and western interior of North America, from Arizona, New Mexico and California, north through the Pacific Northwest and into Alaska	Rangewide, habitats for this species include open coniferous, deciduous and mixed-wood forests, wet and dry meadows, montane meadows and prairie grasslands, meadows bordering riparian zones, and along roadsides in taiga adjacent to wooded areas, urban parks, gardens and agricultural areas, subalpine habitats and more isolated natural areas
Conservancy fairy shrimp *Branchinecta conservatio*	E/--/Yes	There are eight distributed populations of Conservancy fairy shrimp	Conservancy fairy shrimp inhabit rather large, cool-water vernal pools with moderately turbid water. The pools generally last until June. However, the shrimp are gone long before then. They have been collected from early November to early April
Linderiella occidentalis *California linderiella*	E/E/--	The California fairy shrimp is currently known from the Central Valley and Coast ranges of California	The California fairy shrimp has been documented on most land forms, geologic formations, and soil types supporting vernal pools in California
Lytta moesta *Moestan blister beetle*	--/--/Yes	These beetles are found in the Central Valley from Contra Costa County in the north to Tulare and Kern counties in the south	Information on this species is sparse, but some beetles were collected on filaree.
AMPHIBIANS			
California tiger salamander *Ambystoma californiense (A. tigrinum c.)*	T/SSC/Yes	Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet, and coastal region from Butte County south to northeastern San Luis Obispo County	Small ponds, lakes, or vernal pools in grass-lands and oak woodlands for larvae; rodent burrows, rock crevices, or fallen logs for cover for adults and for summer dormancy
California red-legged frog *Rana aurora draytoni*	T/SSC/Yes	Found along the coast and coastal mountain ranges of California from Marin County to San Diego County and in the Sierra Nevada from Tehama County to Fresno County	Permanent and semi-permanent aquatic habitats, such as creeks and cold-water ponds, with emergent and submergent vegetation. May estivate in rodent burrows or cracks during dry periods
Foothill yellow-legged frog *Rana boylii*	--/C/Yes	These frogs occupy the western Sierra Nevada north of the Monarch Divide (in Fresno County) and the eastern slope of the Sierra Nevada (east of the crest) from Inyo County, through Mono County (including the Glass Mountains), to areas north of Lake Tahoe	Typical habitat includes lakes, ponds, marshes, meadows, and streams at high elevations—typically ranging from about 4,500 to 12,000 feet, but can occur as low as about 3,500 feet in the northern portions of their range
Western spadefoot *Spea hammondii*	--/--/--	Ranges throughout the central valley of California as well as the coast south of San Jose and some parts of the desert.	Grassland, scrub and chaparral locally but can occur in oak woodlands.
BIRDS			
Burrowing owl *Athene cunicularia*	BCC/SSC/ Yes	Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas. Rare along south coast	Level, open, dry, heavily grazed or low stature grassland or desert vegetation with available burrows

SPECIES	STATUS (FED/CA/ SJMSCP)	GEOGRAPHIC DISTRIBUTION	HABITAT REQUIREMENTS
Cackling (=Aleutian Canada) goose *Branta hutchinsii leucopareia*	D/--/No	This species is native to North America.	It breeds in northern Canada and Alaska in a variety of tundra habitats.
California black rail *Laterallus jamaicensis coturniculus*	BCC/T/Yes	Permanent resident in the San Francisco Bay and east-ward through the Delta into Sacramento and San Joaquin Counties; small populations in Marin, Santa Cruz, San Luis Obispo, Orange, Riverside, and Imperial Counties	Tidal salt marshes associated with heavy growth of pickleweed; also occurs in brackish marshes or freshwater marshes at low elevations
California horned lark *Eremophila alpestris actia*	--/--/Yes	Resident in northern Baja California (south to about 30 degrees N latitude) and northward through California in the coast range north to Humboldt County and in the San Joaquin Valley, except the extreme southern end	Much habitat has been lost or degraded by agricultural development
Loggerhead shrike *Lanius ludovicianus*	BCC/SSC/ Yes	Resident and winter visitor in lowlands and foothills throughout California. Rare on coastal slope north of Mendocino County, occurring only in winter	Prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches
Song sparrow (Modesto Population) *Melospiza melodia*	BCC/SSC/ Yes	Restricted to California, where it is locally numerous in the Sacramento Valley, Sacramento–San Joaquin River Delta, and northern San Joaquin Valley. Exact boundaries of range uncertain.	Found in emergent freshwater marshes dominated by tules (*Scirpus* spp.) and cattails (*Typha* spp.) as well as riparian willow (*Salix* spp.) thickets. They also nest in riparian forests of Valley Oak (*Quercus lobata*) with a sufficient understory of blackberry (*Rubus* spp.), along vegetated irrigation canals and levees, and in recently planted Valley Oak restoration sites.
Swainson's hawk *Buteo swainsoni*	BCC/T/Yes	Lower Sacramento and San Joaquin Valleys, the Klamath Basin, and Butte Valley. Highest nesting densities occur near Davis and Woodland, Yolo County	Nests in oaks or cottonwoods in or near riparian habitats. Forages in grasslands, irrigated pastures, and grain fields
Merlin *Falco columbarius*	--/--/Yes	Does not nest in California. Rare but widespread winter visitor to the Central Valley and coastal areas	Forages along coastline in open grasslands, savannas, and woodlands. Often forages near lakes and other wetlands
Tricolored blackbird *Agelaius tricolor*	BCC/C (SSC)/Yes	Permanent resident in the Central Valley from Butte County to Kern County. Breeds at scattered coastal locations from Marin County south to San Diego County; and at scattered locations in Lake, Sonoma, and Solano Counties. Rare nester in Siskiyou, Modoc, and Lassen Counties	Nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles, and grainfields. Habitat must be large enough to support 50 pairs. Probably requires water at or near the nesting colony
Watershield *Brasenia schreberi*	--/--/No	It is widespread in North America, and is found in South and Central America, the West Indies, eastern Asia, Africa, and eastern Australia	Lacustrine (in lakes or ponds), riverine (in rivers or streams)
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	T (BCC)/E/Y es	Nests along the upper Sacramento, lower Feather, south fork of the Kern, Amargosa, Santa Ana, and Colorado Rivers	Wide, dense riparian forests with a thick understory of willows for nesting; sites with a dominant cottonwood overstory are preferred for foraging; may avoid valley oak riparian habitats where scrub jays are abundant
White-tailed kite *Elanus leucurus*		Open or cleared agricultural or range lands, natural shrublands and grasslands, lightly wooded areas	They can be found in the Central Valley and southern coastal areas, open land around Goleta including the Ellwood Mesa Open Space, marshes in Humboldt County, and also around the San Francisco Bay
Yellow-headed blackbird *Xanthocephalus*	--/SSC/Yes	Nests in freshwater emergent wetlands with dense vegetation and deep water. Often along borders of lakes or ponds.	Nests only where large insects such as odonatan are abundant, nesting timed with maximum emergence of aquatic insects.

SPECIES	STATUS (FED/CA/ SJMSCP)	GEOGRAPHIC DISTRIBUTION	HABITAT REQUIREMENTS
Least Bell's vireo *Vireo bellii pusillus*	E/E/No	San Joaquin River refuge	Dense shrubs and small trees along rivers and streams.
FISH			
Delta smelt *Hypomesus transpacificus*	T/T/Yes	Primarily in the Sacramento–San Joaquin Estuary but has been found as far upstream as the mouth of the American River on the Sacramento River and Mossdale on the San Joaquin River; range extends downstream to San Pablo Bay	Occurs in estuary habitat in the Delta where fresh and brackish water mix in the salinity range of 2–7 parts per thousand
Hardhead *Mylopharodon conocephalus*	--/SSC/No	Tributary streams in the San Joaquin drainage; large tributary streams in the Sacramento River and the main stem	Resides in low to mid-elevation streams and prefer clear, deep pools and runs with slow velocities. They also occur in reservoirs
Central Valley steelhead *Oncorhynchus mykiss*	T/--/No	Sacramento River and tributary Central Valley rivers.	Occurs in well-oxygenated, cool, riverine habitat with water temperatures from 7.8°C to 18°C. Habitat types are riffles, runs, and pools.
Longfin smelt *Spirinchus thaleichthys*	--/SSC/Yes	Occurs in estuaries along the California coast. Adults concentrated in Suisun, San Pablo, and North San Francisco Bays	Prior to spawning, these fish aggregate in deepwater habitats available in the northern Delta, including, primarily, the channel habitats of Suisun Bay and the Sacramento River. Spawning occurs in fresh water on the San Joaquin River below Medford Island and on the Sacramento River below Rio Vista
MAMMALS			
Riparian brush rabbit *Sylvilagus bachmani riparius*	E/E/Yes	Limited to San Joaquin County at Caswell State Park near the confluence of the Stanislaus and San Joaquin Rivers and Paradise Cut area on Union Pacific right-of-way lands	Native valley riparian habitats with large clumps of dense shrubs, low-growing vines, and some tall shrubs and trees
American badger *Taxidea taxus*	--/SSC/Yes	In California, badgers occur throughout the state except in humid coastal forests of northwestern California in Del Norte and Humboldt Counties	Badgers occur in a wide variety of open, arid habitats but are most commonly associated with grasslands, savannas, mountain meadows, and open areas of desert scrub; the principal habitat requirements for the species appear to be sufficient food (burrowing rodents), friable soils, and relatively open, uncultivated ground
San Joaquin kit fox *Vulpes macrotis mutica*	E/T/Yes	Principally occurs in the San Joaquin Valley and adjacent open foothills to the west; recent records from 17 counties extending from Kern County north to Contra Costa County	Saltbush scrub, grassland, oak, savanna, and freshwater scrub
Pallid Bat *Antrozous pallidus*	--/--/No	Pallid bats range from southern British Columbia through Montana to central Mexico.	Pallid bats roost in a variety of places but favor rocky outcrops. They also occur in oak and pine forested areas and open farmland. Roosting sites are variable, depending on what is available. They can be found roosting in caves, rock crevices, mines, hollow trees, and buildings
San Joaquin Pocket Mouse *Perognathus inornatus*	--/--/Yes	Primarily Central Valley in California	Savanna, Grassland, Desert
REPTILES			
California glossy snake *Arizona elegans occidentalis*	--/--/No	Glossy snakes are most common in desert habitats but also occur in chaparral, sagebrush, valley-foothill hardwood, pine-juniper, and annual grass.	Primarily nocturnal, glossy snakes spend periods of inactivity during the day and during winter in mammal burrows and rock outcrops, and to a lesser extent under surface objects such as flat rocks and vegetation residue. Individuals occasionally burrow in loose soil.
Townsend's big-eared bat *Corynorhinus townsendii*	--/--/Yes	A broad range in western North America, from southern Canada to southern Mexico.	Oak-hickory forests

SPECIES	STATUS (FED/CA/ SJMSCP)	GEOGRAPHIC DISTRIBUTION	HABITAT REQUIREMENTS
Western pond turtle *Emys marmorata*	--/--/No	Western pond turtles (also known as Pacific pond turtles and Pacific mud turtles) are native to the west coast and are found from Baja California, Mexico north through Klickitat County, Washington.	Western pond turtles use both aquatic and terrestrial habitats. They are found in rivers, lakes, streams, ponds, wetlands, vernal pools, ephemeral creeks, reservoirs, agricultural ditches, estuaries, and brackish waters.
Western mastiff bat *Eumops perotis californicus*	--/--/Yes	North America: arid and semiarid, rocky canyon country habitats	Woodland - Mixed, Cliff, Shrubland/chaparral, Suburban/orchard, Woodland - Conifer, Bare rock/talus/scree, Savanna, Woodland - Hardwood, Desert, Grassland/herbaceous
San Joaquin coachwhip *Masticophis flagellum ruddocki*	--/--/Yes	In the United States, their range extends as far west as the San Francisco Bay and as far east as the Coastal Plain of North Carolina.	Coachwhip snakes inhabit sites that are dry, open terrain. The species can be found in deserts, prairies, scrublands, juniper-grasslands, woodlands, thorn-forests, farmlands, creek valleys, chaparral, and, occasionally, swamplands.
Coast horned lizard *Phrynosoma blainvillii*	--/--/No	This lizard ranges throughout most of west-central and southwestern California	This lizard occurs in a variety of habitats, including scrubland, grassland, coniferous woods, and broadleaf woodlands
Giant gartersnake *Thamnophis gigas*	T/T/Yes	Historically the range included much of the floor of the Central Valley (Sacramento and San Joaquin valleys) of California, from Butte County in the north to Kern County in the south, at elevations from near sea level to 122 meters	Habitat of this highly aquatic species includes primarily marshes and sloughs, sometimes low-gradient streams, ponds, and small lakes, with cattails, bulrushes, willows, or other emergent or water-edge vegetation usually present and used for basking and cover
PLANTS			
Large-flowered fiddleneck *Amsinckia grandiflora*	E/E/Yes	Has a historic range along the Inner Coast Range in Alameda, Contra Costa, and San Joaquin counties.	In its natural occurrences, large-flowered fiddleneck occupies north-facing slopes in the upper elevations of grasslands near the blue oak belt. Soil type, livestock grazing and air quality have been suggested as limiting habitat features.
Heartscale *Atriplex cordulata var. cordulata*	--/--/No	California	Chenopod scrub; Meadows and seeps; Valley and foothill grassland (sandy)
Less saltscale *Atriplex minuscula*	--/--/No	Central Valley; San Jose region	Chenopod scrub; Playas; Valley and foothill grassland
Big tarplant *Blepharizonia plumosa*	--/--/No	Northern California	Valley and foothill grassland
Bristly Sedge *Carex comosa*	--/--/Yes	Various locations throughout Northern California	Coastal prairie; Marshes and swamps (lake margins); Valley and foothill grassland
Palmate-bracted bird's-beak *Chloropyron palmatum*	E/E/No	Central and Northern California	Chenopod scrub; Valley and foothill grassland
Slough thistle *Cirsium crassicaule*	--/--/Yes	Southern Central Valley, California	Chenopod scrub; Marshes and swamps (sloughs); Riparian scrub
Recurved larkspur *Delphinium recurvatum*	--/--/Yes	Dispersed throughout California	Chenopod scrub; Cismontane woodland; Valley and foothill grassland
Delta button-celery *Eryngium racemosum*	--/E/Yes	Central Valley, California	Riparian scrub (vernally mesic clay depressions)
Diamond-petaled California poppy *Eschscholzia rhombipetala*	--/--/Yes	Dispersed throughout California	Valley and foothill grassland (alkaline, clay)
San Joaquin spearscale *Extriplex joaquinana*	--/--/--	Dispersed throughout Northern and Central California	Chenopod scrub; Meadows and seeps; Playas; Valley and foothill grassland
Woolly rose-mallow *Hibiscus lasiocarpos var. occidentalis*	--/--/--	Northern Central Valley, California	Marshes and swamps (freshwater)

SPECIES	STATUS (FED/CA/ SJMSCP)	GEOGRAPHIC DISTRIBUTION	HABITAT REQUIREMENTS
Delta tule pea *Lathyrus jepsonii var. jepsonii*	--/--/Yes	Northern California	Marshes and swamps (freshwater and brackish)
Mason's lilaeopsis *Lilaeopsis masonii*	--/R/Yes	Northern California	Marshes and swamps (brackish or freshwater); Riparian scrub
Showy golden madia *Madia radiata*	--/--/Yes	Dispersed throughout southern and central California	Cismontane woodland; Valley and foothill grassland
Sanford's arrowhead *Sagittaria sanfordii*	--/--/Yes	Dispersed throughout California	Marshes and swamps (assorted shallow freshwater)
Suisun Marsh aster *Symphyotrichum lentum*	--/--/--	Northern California	Marshes and swamps (brackish and freshwater)
Wright's trichocoronis *Trichocoronis wrightii var. wrightii*	T/T/Yes	San Bernardino	Meadows and seeps; Marshes and swamps; Riparian forest; Vernal pools
Saline clover *Trifolium hydrophilum*	--/--/--	Dispersed throughout northern California	Marshes and swamps; Valley and foothill grassland (mesic, alkaline); Vernal pools
Caper-fruited tropidocarpum *Tropidocarpum capparideum*	--/--/Yes	Dispersed throughout central and southern California	Valley and foothill grassland (alkaline hills)

STATUS EXPLANATIONS:

FEDERAL

E = ENDANGERED UNDER THE FEDERAL ENDANGERED SPECIES ACT.
T = THREATENED UNDER THE FEDERAL ENDANGERED SPECIES ACT.
PE = PROPOSED FOR ENDANGERED UNDER THE FEDERAL ENDANGERED SPECIES ACT.
PT = PROPOSED FOR THREATENED UNDER THE FEDERAL ENDANGERED SPECIES ACT.
C = CANDIDATE SPECIES FOR LISTING UNDER THE FEDERAL ENDANGERED SPECIES ACT.
D = DELISTED FROM FEDERAL LISTING STATUS.
BCC = BIRD OF CONSERVATION CONCERN

STATE

E = ENDANGERED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.
T = THREATENED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.
C = CANDIDATE SPECIES FOR LISTING UNDER THE STATE ENDANGERED SPECIES ACT.
FP = FULLY PROTECTED UNDER THE CALIFORNIA FISH AND GAME CODE.
SSC = SPECIES OF SPECIAL CONCERN IN CALIFORNIA.

Special Status Plant Species

There are twenty special status plants that are documented within a 9-quad radius of the project site, according to the CNDDB. Of the twenty species, there are three federal listed species and five state listed species. None of these plants were observed during field surveys.

Special Status Wildlife Species

Invertebrates: There are nine special-status invertebrates that are documented within a 9-quad radius of the project site according to the CNDDB. Habitat for special status invertebrates known in the region would include vernal pool, sand dunes, riparian, wooded/forested, meadows, or another undisturbed natural habitat, none of which were identified in the field survey. In addition, biological surveys that were conducted as part of the Northwest Airport Way Master Plan EIR determined that none of these habitat conditions occur within the entire Master Plan area. The appropriate habitat for these species is not present, field surveys have not revealed presence, and database records do not show any recorded occurrences; therefore, these special-status invertebrates are expected to be affected by the proposed project.

Reptile and amphibian species: There are four special-status amphibian that are documented within a 9-quad radius of the project site according to the CNDDB. There are also seven special-status amphibians that are documented within a 9-quad radius of the project site according to the CNDDB. Habitat for special status reptiles and amphibians known in the region would include ponds, lakes, vernal pool, marshes, meadows, scrub, chaparral, oak woodlands, forests, or another undisturbed natural habitat, none of which were identified in the field survey. In addition, biological surveys that were conducted as part of the Northwest Airport Way Master Plan EIR determined that none of these habitat conditions occur within the entire Master Plan area. The appropriate habitat for these species is not present, field surveys have not revealed presence, and database records do not show any recorded occurrences; therefore, these special-status reptiles or amphibians are expected to be affected by the proposed project.

Birds: There are fourteen special-status birds that are documented in the CNDDB within a 9-quad radius of the project site.

Analysis: While the project site contains very limited nesting habitat, there are powerlines and trees located in the region that represent potentially suitable nesting habitat for a variety of special-status birds. Additionally, the disturbed land located on the project site represents potentially suitable nesting habitat for the ground-nesting birds where disturbance is less frequent. In general, most nesting occurs from late February and early March through late July and early August, depending on various environmental conditions. The CNDDB currently contains nesting records for Swainson's hawk and burrowing owl in the vicinity of the project site. In addition to the species described above, common raptors may nest in or adjacent to the project site.

The proposed project would eliminate some of the former agricultural areas on the project site, which serve as potential foraging habitat for birds throughout the year. Mitigation Measure BIO-1a requires pre-construction surveys if ground clearing or vegetation removal activities occur during the nesting season (February 15 through August 31). If an active nest is located, a 250-foot buffer would be delineated and maintained around the nest until a qualified biologist has determined that fledging has occurred. Alternatively, CDFW can be consulted to determine if the protective buffer can be reduced based upon individual species responses to disturbance. Additionally, Mitigation Measure BIO-1b requires that a pre-construction survey is conducted for burrowing owls by a qualified biologist in general accordance with the Burrowing Owl Survey Protocol and Mitigation Guidelines by the California Burrowing Owl Consortium. If occupied burrows are found, mitigation for potential impacts shall follow the guidelines outlined by the Burrowing Owl Survey Protocol and Mitigation Guidelines, including passive relocation. With implementation of Mitigation Measure BIO-1a and Mitigation Measure BIO-1b, the proposed project would fully mitigate all habitat impacts on covered special-status species.

Mammal: There are five special-status mammals that are documented within the 9-quad radius of the project site include. Habitat for special status mammals known in the region would include riparian, scrub, oak woodlands, forests, grasslands, desert, savanna, caves, or another undisturbed natural habitat, none of which were identified in the field survey. In addition, biological surveys that were conducted as part of the Northwest Airport Way Master Plan EIR determined that none of these habitat conditions occur within the entire Master Plan area. The appropriate habitat for these species is not present, field surveys have not revealed presence, and database records do not show any recorded occurrences; therefore, these special-status mammals are expected to be affected by the proposed project.

Conclusion: No special-status species are expected to be affected by the proposed project due to the lack of habitat, absence of special status species during field surveys, and lack of any recorded occurrences of these species within databases. Nevertheless, Mitigation Measures BIO-1a and BIO-1b require mitigation to protect nesting birds and burrowing owls through pre-construction surveys; if active nests and/or occupied burrows are found, further mitigation (such as establishing buffers) according to these mitigation measures is then required.

Therefore, with implementation of Mitigation Measures BIO-1a and BIO-1b, the proposed project would have a ***less than significant*** impact relative to this topic.

Mitigation Adopted by the City

Mitigation Measure BIO-1a*: If ground clearing or vegetation removal activities occur during the nesting season (February 15 through August 31), then pre-construction surveys for nesting birds shall be conducted in all area suitable for nesting that are located within 250 feet of the Master Plan area. Surveys shall be conducted no more than 15 days prior to the beginning of ground disturbance. If an active nest is located, a 250-foot buffer shall be delineated and maintained around the nest until a qualified biologist has determined that fledging has occurred. Alternatively, CDFW may be consulted to determine if the protective buffer can be reduced based upon individual species responses to disturbance. This mitigation measure does not apply if ground clearing or vegetation removal activities occur outside of the nesting season (September 1 through February 14).*

Mitigation Measure BIO-1b*: No more than 30 days prior to the beginning of ground disturbance, a pre-construction survey for burrowing owls shall be conducted by a qualified biologist in general accordance with the Burrowing Owl Survey Protocol and Mitigation Guidelines by the California Burrowing Owl Consortium. Should the surveys be scheduled to occur during the period extending from February 1 through May 1, then surveys shall be conducted no more than 15 days prior to the start of ground disturbance. Surveys shall be conducted from 2 hours before sunset to 1 hour after sunset, or from 1 hour before sunrise to 2 hours after sunrise, and shall be conducted during weather conducive to observing owls outside of their burrows. No surveys shall occur during heavy rain, high winds, or dense fog. If occupied burrows are found, mitigation for potential impacts shall follow the guidelines outlined by the Burrowing Owl Survey Protocol and Mitigation Guidelines, including passive relocation.*

Response b): There is no riparian habitat on the Project site. The CNDDB record search revealed documented occurrences of five sensitive habitats within the 9-quad area of the Project site including: Coastal and Valley Freshwater Marsh, Elderberry Savanna, Great Valley Cottonwood Riparian Forest, Great Valley Mixed Riparian Forest, Great Valley Oak Riparian Forest. None of these sensitive natural communities are recorded in the CNDDB as occurring on the Project site, and a field survey verified that these habitats are absent from the Project site. Mitigation Measure BIO-2 was adopted as part of the Master Plan EIR to ensure protections to jurisdictional facilities and/or riparian habitat; however, this mitigation measure is not applicable to the proposed Project because such habitat is absent from the Project site. Implementation of the proposed Project would have ***no impact*** relative to this topic.

Response c): The Project site does not contain protected wetlands or other jurisdictional areas and there is no need for permitting associated with the federal or state Clean Water Acts. Absent any wetlands or jurisdictional waters, implementation of the proposed Project would have ***no impact*** relative to this topic.

Response d): The CNDDB record search did not reveal any documented wildlife corridors or wildlife nursery sites on or adjacent to the Project site. The field survey did not reveal any evidence of a wildlife corridor or nursery site. Special status fish species documented within the region include: Delta smelt (*Hypomesus transpacificus*), Hardhead (*Mylopharodon conocephalus*), Central Valley steelhead (*Oncorhynchus mykiss*), Central Valley fall- /late fall-run Chinook salmon (*Oncorhynchus tshawytscha*), and Longfin smelt (*Spirinchus thaleichthys*). The closest major natural movement corridor for native fish that are documented in the region is the San Joaquin River, located to the west of the Project site. The land uses within the Project site would not have any direct disturbance to the San Joaquin River or its tributaries, and therefore, would not have any direct disturbance to the movement corridor or habitat. Implementation of the proposed Project would have ***no impact*** relative to this topic.

Response e): The Resource Conservation Element of the General Plan establishes numerous policies and implementation measures related to biological resources as listed below:

Conservation Element Policies

RC-P-31. Minimize impact of new development on native vegetation and wildlife.

- ***Consistent****: This Initial Study includes an in-depth analysis of impacts for sensitive plants and wildlife, as well as habitat. Where impacts are identified, mitigation measures are presented to minimize, avoid, or compensate to the extent practicable.*

RC-P-33. Discourage the premature removal of orchard trees in advance of development, and discourage the removal of other existing healthy mature trees, both native and introduced.

- ***Consistent****: The proposed project will not require the removal of orchard trees.*

RC-P-34. Protect special status species and other species that are sensitive to human activities.

- ***Consistent****: This Initial Study includes an in-depth analysis of impacts for sensitive plants and wildlife, as well as habitat. Where impacts are identified, mitigation measures are presented to minimize, avoid, or compensate to the extent practicable.*

RC-P-35. Allow contiguous habitat areas.

- ***Consistent****: Habitat areas in the vicinity of the project site include annual grasslands and agricultural plant communities which provide habitat for a variety of biological resources in the region. These areas occur throughout the region and are generally flat and well drained, and as a result are well suited for many crops. Alfalfa fields, hay, row crops, orchards, dominate the agricultural areas in the vicinity. The proposed project does not require contiguous habitat areas to change or convert to another use.*

The proposed project would not conflict with any of these policies and implementation measures, nor would it conflict with any ordinances contained in the Manteca Municipal Code. Therefore, the proposed project would have ***no impact*** relative to this topic.

Response f): The proposed project is subject to the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). The SJMSCP is administered by a Joint Powers Authority consisting of members of the SJCOG, the California Department of Fish and Wildlife (CDFW), and the United States Fish and Wildlife Service (USFWS). According to the SJMSCP,

adoption and implementation by local planning jurisdictions provides full compensation and mitigation for impacts to plants, fish and wildlife. Adoption and implementation of the SJMSCP also secures compliance pursuant to the state and federal laws such as CEQA, the National Environmental Policy Act (NEPA), the Planning and Zoning Law, the State Subdivision Map Act, the Porter-Cologne Act and the Cortese-Knox Act in regard to species covered under the SJMSCP. Applicants pay mitigation fees on a per-acre basis. The entire County is mapped according to these categories so that landowners, project proponents and project reviewers are easily aware of the applicable SJMSCP fees for the proposed development. The appropriate fees are collected by the City and remitted to SJCOG for administration. SJCOG uses the funds to preserve open space land of comparable types throughout the County, often coordinating with other private or public land trusts to purchase conservation easements or buy land outright for preservation. The fees are automatically adjusted on an annual basis. The fees have been designed to sufficiently mitigation the impacts of projects on candidate, sensitive, and special status species. In addition, additional field surveying is required as part of the SJMSCP process prior to any construction activities.

Table BIO-2, below, provides a consistency analysis with the criteria set forth by the SJMSCP. As shown in the table, the proposed Master Plan is consistent with applicable criteria.

TABLE BIO-2: SJMSCP CONSISTENCY ANALYSIS

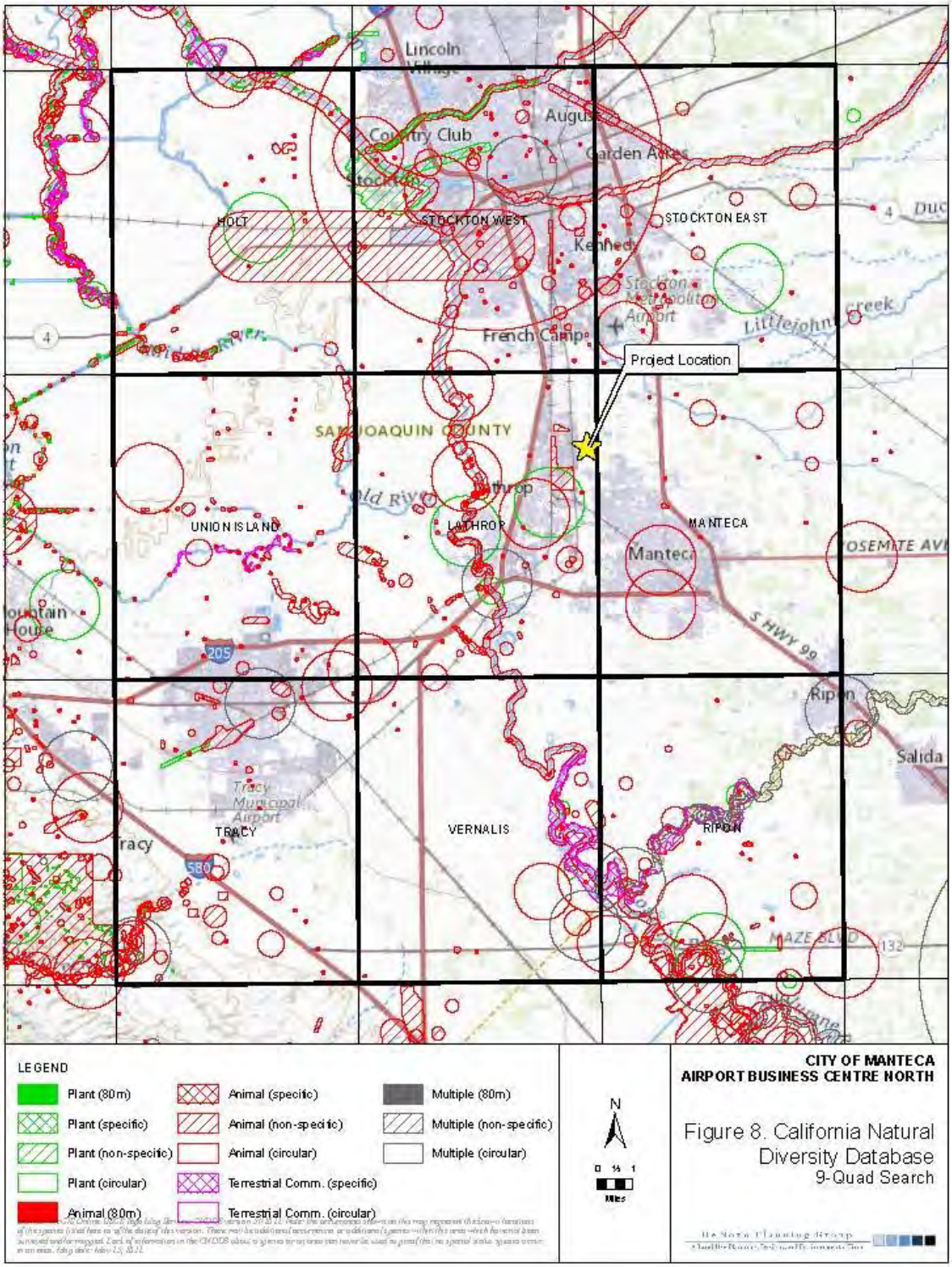
NO.	CRITERION	CONSISTENCY DETERMINATION
1	Coverage for the proposed project is consistent with the overall SJMSCP biological intent and conservation program.	**Consistent**: The Master Plan area is mapped as "Agriculture" by the SJMSCP. The plan contemplates the conversion of 1,899 acres of agricultural land in Manteca to urban use over the 50-year life of the plan. The City of Manteca General Plan contemplates urban development within the Master Plan area; therefore, the conversion of this area from agricultural to urban use is accounted for in the SJMSCP. The SJMSCP requires payment of fees to permanently preserve agricultural land elsewhere in San Joaquin County at a ratio of 1:1. This requirement is codified in Mitigation Measure BIO-6. Therefore, the proposed Master Plan is consistent with the overall SJMSCP biological intent and conservation program.
2	Coverage for the proposed project is consistent with the SJMSCP Biological Opinion.	**Consistent**: The SJMSCP Biological Opinion reflects the activities covered by the SJMSCP. Because the conversion of the Master Plan area from agricultural to urban use is accounted for in the SJMSCP, the Biological Opinion would reflect this activity. Furthermore, mitigation is required for all development activities that adversely affect special-status species and waterways, which is consistent with the SJMSCP. Therefore, the proposed Master Plan is consistent with the SJMSCP Biological Opinion.
3	Biological impacts and Incidental Take associated with the proposed project are within the scope of the environmental analyses adopted in conjunction with the SJMSCP.	**Consistent**: The Master Plan area is mapped as "Agriculture" by the SJMSCP. The plan contemplates the conversion of 1,899 acres of agricultural land in Manteca to urban use over the 50-year life of the plan. The City of Manteca General Plan contemplates urban development within the Master Plan area; therefore, the conversion of this area from agricultural to urban use is accounted for in the SJMSCP. As such, the proposed Master Plan's biological impacts are within the scope of the SJMSCP environmental analyses.
4	The project does not introduce significant new biological conditions into the Plan area (i.e., impacts of the proposed project are less than or equal to those described in the SJMSCP and its supporting environmental documents).	**Consistent**: The Master Plan area is mapped as "Agriculture" by the SJMSCP. The plan contemplates the conversion of 1,899 acres of agricultural land in Manteca to urban use over the 50-year life of the plan. The City of Manteca General Plan contemplates urban development within the Master Plan area; therefore, the conversion of this area from agricultural to urban use is accounted for in the SJMSCP. As such, the proposed Master Plan would not introduce significant new biological conditions into the SJMSCP boundaries.
5	The project acres have been analyzed based on habitat type (e.g., Natural Land, Agricultural Habitat Land or Multi-Purpose project are less than or equal to those described in the SJMSCP and its supporting environmental documents).	**Consistent**: The Master Plan area is mapped as "Agriculture" by the SJMSCP. The plan contemplates the conversion of 1,899 acres of agricultural land in Manteca to urban use over the 50-year life of the plan. The City of Manteca General Plan contemplates urban development within the Master Plan area; therefore, the conversion of this area from agricultural to urban use is accounted for in the SJMSCP. As such, the proposed Master Plan's conversion of agricultural land is equal or less than those described in the SJMSCP.

NO.	CRITERION	CONSISTENCY DETERMINATION
6	The project meets at least one of the following criteria: • The project is adjacent to existing city limits; or • The project is adjacent to the boundaries of defined communities; or • The project is adjacent to existing airport facilities, or • The project is within an area designated as Freeway Service Commercial, or • The project is an expansion of an existing industrial or urbanized area in the unincorporated county, or • The project is proposed for annexation to a jurisdiction.	**Consistent**: The Master Plan meets three of the listed criteria: 1. The Master Plan area is adjacent to the Manteca city limits. 2. The Master Plan would develop light industrial uses that would interface with the existing Union Pacific Railroad Lathrop Intermodal Terminal, which is located in unincorporated San Joaquin County. As such, it would represent an expansion of existing industrial or urbanized area in the unincorporated county. 3. The Master Plan area is proposed for annexation into the City of Manteca.
7	The project is not one of the projects specifically exempted from SJMSCP Coverage as identified in SJMSCP Section 8.2.2.	**Consistent**: The Master Plan is not one of the projects specifically exempted from SJMSCP Coverage as identified in SJMSCP Section 8.2.2.
8	The project does not disrupt a corridor used by the giant garter snake, riparian brush rabbit, riparian woodrat, the San Joaquin kit fox, or fisheries as identified in the SJMSCP.	**Consistent:** As indicated in Impact BIO-4, the Master Plan area is not suitable for use as a wildlife movement corridor by the giant garter snake, riparian brush rabbit, riparian woodrat, the San Joaquin kit fox, or any fish species.
9	The project does not interfere with the San Joaquin River Wildlife Corridor as established in Section 5.5.2.3.	**Consistent:** The Master Plan area is located more than 2.5 miles from the San Joaquin River Wildlife Corridor. Intervening urban development and infrastructure exists between the Master Plan area and the San Joaquin River. As such, the development of the Master Plan would not interfere with the San Joaquin River Wildlife Corridor.
10	The project does not include installation of a linear barrier to species dispersal as defined in Section 5.5.8.	**Consistent**: The Master Plan does not propose any transportation improvements that would create a linear barrier to species dispersal (e.g., median barrier installation or freeway widening).
11	The Technical Advisory Committee may consider and make additional findings for an individual project to determine if SJMSCP coverage for a project in this category is consistent with the overall biological intent of the SJMSCP and is consistent with the Biological Opinion.	**Consistent**: The Master Plan does not contain any provisions that would preclude the Technical Advisory Committee from considering and making additional findings.

The proposed project does not conflict with the SJMSCP, as Mitigation Measure BIO-2 below requires participation in the plan. Therefore, the proposed project would have a ***less than significant*** impact relative to this topic.

Mitigation Adopted by the City

Mitigation Measure BIO-2*: The project applicant shall obtain coverage under the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan. Coverage shall consist of approval of the Master Plan-specific "Section 8.2.1 (10) Checklist for Unmapped SJMSCP Projects" by the San Joaquin Council of Governments Technical Advisory Committee. The applicant shall pay all required fees to the San Joaquin Council of Governments prior to the commencement of construction activities.*


Project Location
HOLT
STOCKTON WEST
STOCKTON EAST
French Camp
SAN JOAQUIN COUNTY
UNION ISLAND
LATHROP
MANTECA
TRACY
VERNALIS
RIPON
Salida
LEGEND
Plant (80m)
Plant (specific)
Plant (non-specific)
Plant (circular)
Animal (80m)
Animal (specific)
Animal (non-specific)
Animal (circular)
Terrestrial Comm. (specific)
Terrestrial Comm. (circular)
Multiple (80m)
Multiple (non-specific)
Multiple (circular)
N
CITY OF MANTECA
AIRPORT BUSINESS CENTRE NORTH
Figure 8. California Natural Diversity Database
9-Quad Search

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V. CULTURAL RESOURCES

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

Responses to Checklist Questions

Response a), b): As provided in the Northwest Airport Way Master Plan EIR, the record search showed that there are no historic or archaeological resources that have been previously recorded within the Master Plan area. In addition, during the course of the pedestrian survey, no historic or archaeological resources were discovered within the Master Plan area. However, there is always the possibility that ground-disturbing activities during project development could potentially impact previously unknown historic resources. As such, Mitigation Measure CUL-1 requires standard inadvertent discovery procedures to be implemented in the event that subsurface historical or archaeological resources are encountered during construction. With the implementation of mitigation, impacts would be reduced to a level of ***less than significant***.

Mitigation Adopted by the City

Mitigation Measure CUL-1*: If potentially significant historic resources are encountered during subsurface excavation activities for any Master Plan use, all construction activities within a 100-foot radius of the resource shall cease until a qualified archaeologist determines whether the resource requires further study. The City shall require that the applicant include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered resources found during construction shall be recorded on appropriate California Department of Parks and Recreation forms and evaluated for significance in terms of California Environmental Quality Act criteria by a qualified archaeologist. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. If the resource is determined to be significant under CEQA, the City and a qualified archaeologist shall determine whether preservation in place is feasible. Such preservation in place is the preferred mitigation. If such preservation is infeasible, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan for the resource. The archaeologist shall also conduct appropriate technical analyses, prepare a comprehensive written report and file it with the appropriate information center (California Historical Resources Information System), and provide for the permanent curation of the recovered materials.*

Mitigation Measure CUL-2*: If potentially significant archaeological resources are encountered during subsurface excavation activities, all construction activities within a 100-foot radius of the resource shall cease until a qualified archaeologist determines whether the resource requires further study. The City shall require that the applicant include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered resources found during construction shall be recorded on appropriate Department of Parks and Recreation forms and evaluated for significance in terms of California Environmental*

Quality Act criteria by a qualified archaeologist. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. If the resource is determined to be significant under CEQA, the City and a qualified archaeologist shall determine whether preservation in place is feasible. Such preservation in place is the preferred mitigation. If such preservation is infeasible, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan for the resource. The archaeologist shall also conduct appropriate technical analyses, prepare a comprehensive written report and file it with the appropriate information center (California Historical Resources Information System), and provide for the permanent curation of the recovered materials.

Response c): There are no known burial sites within the Master Plan project area. The pedestrian survey conducted for the Northwest Airport Way Master Plan EIR did not find any evidence of human remains or burial goods within the Project site. In addition, none of the previous surveys that included the Master Plan project area or were within a 0.25-mile radius reported finding any human remains. Nonetheless, the possibility exists that subsurface construction activities may encounter previously undiscovered human remains. Accordingly, this is a potentially significant impact. Mitigation Measure CUL-4 requires standard inadvertent discovery procedures to be implemented in the event that subsurface cultural resources are encountered during construction. With the implementation of mitigation, impacts would be reduced to a level of ***less than significant***.

Mitigation Adopted by the City

Mitigation Measure CUL-4*: If previously unknown human remains are encountered during construction activities, Section 7050.5 of the California Health and Safety Code applies, and the following procedures shall be followed: In the event of an accidental discovery or recognition of any human remains, Public Resource Code Section 5097.98 must be followed. Once project-related ground disturbance begins and if there is accidental discovery of human remains, the following steps shall be taken:*

- *There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the San Joaquin County Coroner's Office is contacted to determine if the remains are Native American and if an investigation into cause of death is required. If the coroner determines the remains are Native American, the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the "most likely descendant" of the deceased Native American. The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.*

VI. ENERGY

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

Responses to Checklist Questions

Responses a), b): Appendix G of the State CEQA Guidelines requires consideration of the potentially significant energy implications of a project. CEQA requires mitigation measures to reduce "wasteful, inefficient and unnecessary" energy usage (Public Resources Code Section 21100, subdivision [b][3]). According to Appendix G of the CEQA Guidelines, the means to achieve the goal of conserving energy include decreasing overall energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. In particular, the proposed Project would be considered "wasteful, inefficient, and unnecessary" if it were to violate state and federal energy standards and/or result in significant adverse impacts related to project energy requirements, energy inefficiencies, energy intensiveness of materials, cause significant impacts on local and regional energy supplies or generate requirements for additional capacity, fail to comply with existing energy standards, otherwise result in significant adverse impacts on energy resources, or conflict or create an inconsistency with applicable plan, policy, or regulation, including the City of Manteca CAP.[2]

The amount of energy used at the Project site would directly correlate to the energy consumption (including fuel) used by vehicle trips generated during project construction, fuel used by off-road construction vehicles during construction, fuel used by vehicles during project operation, and electricity and other energy usage during project operation. The CalEEMod modeling results for the proposed Project estimate annual operational electricity usage at approximately 1,887,908 kWh/year, and annual natural gas usage at 2,280,500 kBTU/year (see Appendix A for further detail).

Conclusion

The proposed Project would be in compliance with all applicable federal, state, and local regulations regulating energy usage. For example statewide measures, including those intended to improve the energy efficiency of the statewide passenger and heavy-duty truck vehicle fleet (e.g. the Pavley Bill and the Low Carbon Fuel Standard) are improving vehicle fuel economies, thereby conserving gasoline and diesel fuel. These energy savings would continue to accrue over time.

As a result, the proposed Project would not result in any significant adverse impacts related to project energy requirements, energy use inefficiencies, and/or the energy intensiveness of materials by amount and fuel type for each stage of the proposed Project including construction, operations, maintenance, and/or removal. PG&E, the electricity and natural gas provider to the site, maintains sufficient capacity to serve the proposed Project. In addition, PG&E is on its way

[2] See Section VIII. Greenhouse Gas Emissions for a comparison of the project's consistency with relevant CAP reduction measures.

to achieving the statewide requirement of 50% of total energy mix generated by eligible renewables by hear 2030. As of 2018, PG&E generated approximately 38% of its energy from eligible renewables (PG&E, 2019). The proposed Project would comply with all existing energy standards, including the statewide Title 24 Energy Efficiency Standards, and would not result in significant adverse impacts on energy resources. Therefore, the proposed Project would not result in potentially significant environmental impacts due to inefficient, wasteful, or unnecessary use of energy resources during construction and operation, nor conflict with or construct with a State or local plan for renewable energy or energy efficiency. This is a ***less than significant*** impact.

VII. GEOLOGY AND SOILS

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*No Impact*
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:			X	
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?		X		
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?		X		
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?		X		
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?		X		
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		

Responses to Checklist Questions

Responses a.i), a.ii), a.iv): The site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone, and known surface expression of active faults does not exist within the site. However, the site is located within a seismically active region. The U.S. Geological Survey identifies potential seismic sources within approximately 20 miles of the project site. Two of the closest known faults classified as active by the U.S. Geological Survey are an unnamed fault east of the City of Tracy, located approximately 8 miles to the west, and the San Joaquin fault, located approximately 16 miles to the southwest. The Midway fault is located approximately 20 miles to the west. Other faults that could potentially affect the proposed project include the Corral Hollow-Carnegie fault, the Greenville fault, the Antioch fault, and the Los Positas fault.

Geologic Hazards

Potential seismic hazards resulting from a nearby moderate to major earthquake could generally be classified as primary and secondary. The primary seismic hazard is ground rupture, also called surface faulting. The common secondary seismic hazards include ground shaking and ground lurching.

Ground Rupture

Because the property does not have known active faults crossing the site, and the site is not located within an Earthquake Fault Special Study Zone, ground rupture is unlikely at the subject property.

Ground Shaking

According to the California Geological Survey's Probabilistic Seismic Hazard Assessment Program, Manteca is considered to be within an area that is predicted to have a 10 percent probability that a seismic event would produce horizontal ground shaking of 10 to 20 percent within a 50-year period. This level of ground shaking correlates to a Modified Mercalli intensity of V to VII, light to strong. As a result of these factors the California Geological Survey has defined the entire county as a seismic hazard zone. There will always be a potential for groundshaking caused by seismic activity anywhere in California, including the project site.

Landslides

The proposed project site is not susceptible to landslides because the area is essentially flat. This is a less than significant impact.

Conclusion

In order to minimize potential damage to the proposed site improvements, all construction in California is required to be designed in accordance with the latest seismic design standards of the California Building Standards Code. Design in accordance with these standards would reduce any potential impact to a less than significant level. Because all development in the project site must be designed in conformance with these State standards, any potential impact would be considered ***less than significant***.

Responses a.iii), c), d): Liquefaction normally occurs when sites underlain by saturated, loose to medium dense, granular soils are subjected to relatively high ground shaking. During an earthquake, ground shaking may cause certain types of soil deposits to lose shear strength, resulting in ground settlement, oscillation, loss of bearing capacity, landsliding, and the buoyant rise of buried structures. The majority of liquefaction hazards are associated with sandy soils, silty soils of low plasticity, and some gravelly soils. Cohesive soils are generally not considered to be susceptible to liquefaction. In general, liquefaction hazards are most severe within the upper 50 feet of the surface, except where slope faces or deep foundations are present.

Expansive soils are those that undergo volume changes as moisture content fluctuates; swelling substantially when wet or shrinking when dry. Soil expansion can damage structures by cracking foundations, causing settlement and distorting structural elements. Expansion is a typical characteristic of clay-type soils. Expansive soils shrink and swell in volume during changes in moisture content, such as a result of seasonal rain events, and can cause damage to foundations, concrete slabs, roadway improvements, and pavement sections.

Soil expansion is dependent on many factors. The more clayey, critically expansive surface soil and fill materials will be subjected to volume changes during seasonal fluctuations in moisture content. There are no expansive (i.e. shrink-swell) soils within the project site. The soils encountered at the project site consist of Veritas fine sandy loam (within the eastern portion of the project site), and Tinnin loamy course sand (within the western portions of the project site).

Future development of the project could expose people or structures to adverse effects associated with liquefaction and/or soil expansion. Construction of the project would be required to comply with the City's General Plan policies related to geologic and seismic hazards. For example, Policy S-P-2 provides that the City will require new development to mitigate the potential impacts of geologic hazards through building review, and Policy S-P-3 provides that the City will require new development to mitigate the potential impacts of seismic-induced settlement of uncompacted fill and liquefaction due to the presence of a high-water table. To that end, General Plan Policy S-P-1 requires that all proposed development prepare geological reports and/or geological engineering reports for projects located in areas of potentially significant geological hazards, including potential subsidence (collapsible surface soils) due to groundwater extraction. Moreover, Mitigation Measure GEO-1 would ensure that the project applicant will submit a design-level geotechnical study and buildings plans to the City of Manteca for review and approval.

Therefore, with implementation of Mitigation Measure GEO-1, this potential impact would be ***less than significant***.

Mitigation Adopted by the City

Mitigation Measure GEO-1*: Prior to issuance of building permits, the project applicant shall submit a design-level geotechnical study and building plans to the City of Manteca for review and approval. The building plans shall demonstrate that they incorporate all applicable recommendations of the design-level geotechnical study and comply with all applicable requirements of the most recent version of the California Building Standards Code. A licensed professional engineer shall prepare the plans, including those that pertain to soil engineering, structural foundations, pipeline excavation, and installation. The approved plans shall be incorporated into the proposed project. All onsite soil engineering activities shall be conducted under the supervision of a licensed Geotechnical Engineer or Certified Engineering Geologist.*

Response b): According to the project site plans prepared for the proposed project, development of the proposed project would result in the creation of new impervious surface areas throughout the project site. The development of the project site would also cause ground disturbance of top soil. The ground disturbance would be limited to the areas proposed for grading and excavation, including the proposed internal roadways and drain infrastructure improvements. After grading and excavation, and prior to overlaying the disturbed ground surfaces with impervious surfaces and structures, the potential exists for wind and water erosion to occur, which could adversely affect downstream storm drainage facilities.

Without implementation of appropriate Best Management Practices (BMPs) related to prevention of soil erosion during construction, development of the project would result in a potentially significant impact with respect to soil erosion. Mitigation Measure HYD-1 requires the project applicant to prepare and submit a Stormwater Pollution Prevention Plan identifying specific actions and BMPs to prevent stormwater pollution during construction activities. The SWPPP shall include, among other things, temporary erosion control measures to be employed for disturbed areas. Implementation of the following mitigation measure, therefore, would ensure the impact is ***less than significant***.

Mitigation Adopted by the City
Implement Mitigation Measure HYD-1.

Response e): No septic systems will be used or developed as part of the proposed project. Therefore, ***no impact*** would occur related to soils incapable of adequately supporting the use of septic tanks.

Response f): Known paleontological resources or sites are not located on the project site. Additionally, unique geologic features are not located on the site. The site is currently undeveloped and surrounded by existing or future urban development. Additionally, as discussed in Section V, Cultural Resources, in the event that plant or animal fossils are discovered during subsurface excavation activities, Mitigation Measure CUL-3 would all excavation within 50 feet of the fossil to cease until a paleontologist has determined the significance of the find and provided recommendations in accordance with Society of Vertebrate Paleontology standards. If the find is determined to be significant and the City determines that avoidance is not feasible, the paleontologist would design and implement a data recovery plan consistent with the Society of Vertebrate Paleontology standards, to be submitted to the City for review and approval. With implementation of Mitigation Measure CUL-3, impacts to paleontological resources or unique geologic features are not expected. This is a ***less than significant*** impact.

Mitigation Adopted by the City
Mitigation Measure CUL-3*: In the event that plant or animal fossils are discovered during subsurface excavation activities for the proposed project, all excavation within 50 feet of the fossil shall cease until a qualified paleontologist has determined the significance of the find and provides recommendations in accordance with Society of Vertebrate Paleontology standards. The paleontologist shall notify the City of Manteca to determine procedures to be followed before construction is allowed to resume at the location of the find. If the find is determined to be significant and the City determines that avoidance is not feasible, the paleontologist shall design and implement a data recovery plan consistent with the Society of Vertebrate Paleontology standards. The plan shall be submitted to the City for review and approval. Upon approval, the plan shall be incorporated into the project.*

VIII. GREENHOUSE GAS EMISSIONS

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

Existing Setting

Various gases in the Earth's atmosphere, classified as atmospheric greenhouse gases (GHGs), play a critical role in determining the Earth's surface temperature. Solar radiation enters Earth's atmosphere from space, and a portion of the radiation is absorbed by the Earth's surface. The Earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation.

Naturally occurring GHGs include water vapor (H_2O), carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and ozone (O_3). Several classes of halogenated substances that contain fluorine, chlorine, or bromine are also GHGs, but they are, for the most part, solely a product of industrial activities. Although the direct GHGs, including CO_2, CH_4, and N_2O, occur naturally in the atmosphere, human activities have changed their atmospheric concentrations. From the pre-industrial era (i.e., ending about 1750) to 2011, concentrations of these three GHGs have increased globally by 40, 150, and 20 percent, respectively (IPCC, 2013).

Greenhouse gases, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect. Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), ozone (O_3), water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs).

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Consumption of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in 2018, accounting for 41% of total GHG emissions in the state. This category was followed by the industrial sector (24%), the electricity generation sector (including both in-state and out of-state sources) (15%) and the agriculture and forestry sector (8%) (California Energy Commission, 2016).

As the name implies, global climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern, respectively. California produced approximately 425 million gross metric tons of carbon dioxide equivalents ($MMTCO_2e$) in 2018 (California Energy Commission, 2021). Given that the U.S. EPA estimates that worldwide emissions from human activities totaled nearly 46 billion gross metric tons of carbon dioxide equivalents ($BMTCO_2e$) in 2010, California's incremental contribution to global GHGs is approximately 2% (U.S. EPA, 2014).

Carbon dioxide equivalents are a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential of a GHG, is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

Responses to Checklist Questions

Responses a), b): Existing science is inadequate to support quantification of impacts that project specific GHG emissions have on global climatic change. This is readily understood when one considers that global climatic change is the result of the sum total of GHG emissions, both man-made and natural that occurred in the past; that is occurring now; and will occur in the future. The effects of project specific GHG emissions are cumulative, and unless reduced or mitigated, their incremental contribution to global climatic change could be considered significant.

The SJVAPCD's *Guidance for Assessing and Mitigating Air Quality Impacts* (SJVAPCD, 2015) provides an approach to assessing a project's impacts on greenhouse gas emissions by evaluating the project's emissions to the "reduction targets" established in ARB's AB 32 Scoping Plan. For instance, the SJVACD's guidance recommends that projects should demonstrate that "*project specific GHG emissions would be reduced or mitigated by at least 29%, compared to Business as Usual (BAU), including GHG emission reductions achieved since the 2002-2004 baseline period, consistent with GHG emission reduction targets established in ARB's AB 32 Scoping Plan. Projects achieving at least a 29% GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG*."

Subsequent to the SJVAPCD's approval of the *Final Draft Guidance for Assessing and Mitigating Air Quality Impacts* (SJVAPCD 2015), the California Supreme Court issued an opinion that affects the conclusions that should/should not be drawn from a GHG emissions analysis that is based on consistency with the AB 32 Scoping Plan. More specifically, in *Center for Biological Diversity v. California Department of Fish and Wildlife*, the Court ruled that showing a "project-level reduction" that meets or exceeds the Scoping Plan's overall statewide GHG reduction goal is not necessarily sufficient to show that the project's GHG impacts will be adequately mitigated: "*the Scoping Plan nowhere related that statewide level of reduction effort to the percentage of reduction that would or should be required from individual projects*..." According to the Court, the lead agency cannot simply assume that the overall level of effort required to achieve the statewide goal for emissions reductions will suffice for a specific project.

Given this Court decision, reliance on a 29 percent GHG emissions reduction from projected BAU levels compared to the project's estimated 2020 levels as recommended in the SJVAPCD's guidance documents is not an appropriate basis for an impact conclusion in the MND. Given that the SJVAPCD staff has concluded that "*existing science is inadequate to support quantification of impacts that project specific GHG emissions have on global climatic change,*" this MND instead relies on consistency with the local reduction strategies contained within the existing City of Manteca Climate Action Plan (CAP) (2013) for this analysis.

The City of Manteca adopted its CAP in October 2013. The purpose of the CAP is to: 1) outline a course of action for the City government and the community of Manteca to reduce per capita greenhouse gas emissions by amounts required to show consistency with AB 32 goals and adapt to effects of climate change, and 2) provide clear guidance to City staff regarding when and how to implement key provisions of the CAP, and 3) provide a streamlined mechanism for projects

that are consistent with the CAP to demonstrate that they would not contribute significant greenhouse gas impacts.

The GHG Plan is considered a "Qualified Plan," according to CEQA Guidelines Section 15183.5.2.

The approach still relies on the Appendix G of the CEQA Guidelines thresholds which indicate that climate change-related impacts are considered significant if implementation of the proposed Project would do any of the following:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

These two CEQA Appendix G threshold questions are provided within the Initial Study checklist and are the thresholds used for the subsequent analysis. The focus of the analysis is on the project's consistency with the CAP. The CAP contains an inventory of GHG emissions, reduction strategies, and a means to implement, monitor, and fund the Plan. The purpose of the CAP is to outline a course of action for the City government and the community of Manteca to reduce per capita greenhouse gas emissions by amounts required to show consistency with AB 32 goals, and to adapt to effects of climate change. The CAP also provides clear guidance to City staff regarding when and how to implement key provisions of the CAP. Lastly, the CAP provides a streamlined mechanism for projects that are consistent with the CAP to demonstrate that they would not contribute significant greenhouse gas impacts. The analysis provided herein includes quantitative modeling to show the construction and operational emissions of GHGs as a result of the project, however, the conclusions are based on the fact that the project is consistent with the reduction strategies contained within the CAP.

Project Greenhouse Gas Emissions

The proposed project would generate GHGs during the construction and operational phases of the proposed project. The primary source of construction-related GHGs from the proposed project would result from emissions of CO_2 associated with the construction of the proposed project, and worker vehicle trips. The proposed project would require limited grading, and would also include site preparation, building construction, architectural coating, and paving phases. Sources of GHGs during project operation would include CO_2 associated with operational vehicle trips and on-site energy usage (e.g. electricity). Other sources of GHG emissions would be minimal.

Table GHG-1 provides the estimated GHG emissions that would be generated during project construction and operation.

Table GHG-1: Project Mitigated Construction and Operational GHG Emissions (metric tons/year)

Year	*CO2e*
Construction	
2022	253.6
2023	1,009.4
2024	491.4
Operation	
Annual	2,830.5

Source: CalEEMod, v.2020.4.0

Project Consistency with the Manteca CAP

Table GHG-2, below provides a consistency analysis of the relevant Manteca CAP policies in comparison to the proposed project.

TABLE GHG-2: PROJECT CONSISTENCY WITH THE MANTECA CAP

No.	*Strategy*	*Consistency Determination*
CD-1	The City shall encourage projects consistent with the development densities allowed by the General Plan and are contiguous to existing development meet compact development criteria.	**Consistent**: The project is consistent with the development densities allowed by the General Plan.
CD-2	The City shall encourage projects that are at or near the maximum densities allowed by the General Plan and zoning designations to achieve more compact development.	**Consistent**: The project is near the maximum density allowed by the General Plan and zoning designations.
TDM-1	Notify developers of large commercial and industrial developments of the requirements of SJVAPCD Rule 9410 to implement TDM programs that reduce commute trips.	**Consistent**: The City would notify the developer of the project regarding the requirements of SJVAPCD Rule 9410 to implement TDM programs that reduce commute trips.
TEF-1	The City shall provide developers of projects with the potential for employing more than 100 persons at a single work site with information on end-of-trip facilities appropriate for the type of business and size of the project that will assist in their compliance with SJVAPCD Rule 9410.	**Consistent**: The City would notify the developer of the project regarding the potential for employing more than 100 persons at a single work site with information on end-of-trip facilities
ENB-1	The City shall require developers to exceed Title 24 energy efficiency standards by at least 10 percent. The City recognizes that it may not be feasible for all buildings and structures to exceed Title 24 by this amount because of the form or function of the building. Projects that cannot meet the reduction level may provide solar panels or other non-building-related energy efficiency measures such as exterior lighting or water savings.	**Consistent**: The project developer would be required to develop building plans consistent with this measure.

Based on CAP measure ENB-1, the proposed Project would be required to exceed the Title 24 energy efficiency requirements by at least 10 percent, if feasible, or (if not feasible), require implementation of solar panels or other non-building related energy efficiency measures such as exterior or water savings. Mitigation Measure GHG-1 requires the proposed Project to be consistent with CAP measure ENB-1, as provided below. It should be noted that, for the sake of a conservative analysis, and due to uncertainty of implementation, this mitigation measure not modeled within CalEEMod.

Mitigation Measures

Mitigation Measure GHG-1*: Prior to Project occupancy, the Project applicant shall ensure that the proposed Project building energy efficiency exceeds the current version of the Title 24 energy efficiency standards by at least 10%, as feasible. If the proposed Project cannot meet this reduction level, the Project applicant shall provide on-site solar photovoltaic (PV) or other non-building lighting or water savings equivalent to at least a 10% improvement in overall proposed Project energy efficiency savings, as feasible.*

Project Consistency with SJCOG's RTP/SCS

In addition, the proposed project would not conflict with the implementation of regional transportation-related GHG targets outlined in San Joaquin Council of Governments' (SJCOG) 2018 Regional Transportation Plan and Sustainable Communities Strategy (2018 RTP/SCS). The 2018 RTP/SCS includes the Northwest Airport Way Master Plan in their population and employment projections, and VMT increases associated with buildout of the City of Manteca.

Conclusion

Overall, the proposed project would be consistent with the strategies as described in the City of Manteca CAP and it functions as an implementation project toward achieving the City's Climate Action Plan. Since the proposed project would not conflict with the Manteca CAP (including consistency with the growth projections generated by the Manteca CAP or SJCOG's RTP/SCS, the proposed project would not generate a significant cumulative impact to GHGs.

The proposed project would not generate GHG emissions that would have a significant impact on the environment or conflict with any applicable plans, policies, or regulations. Therefore, impacts related to greenhouse gases are ***less than significant***.

IX. HAZARDS AND HAZARDOUS MATERIALS

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

Responses to Checklist Questions

Responses a), b): The Northwest Airport Way Master Plan area has previously been identified as having past and present uses that could potentially result in the exposure of persons and environment to hazardous materials. These issues potentially include soil impacts from hazardous materials storage vessels, agricultural chemicals, and septic systems. The project site could also potentially result in the exposure of persons and environment to hazardous materials from some or all of these sources. Since the proposed project does not include demolition, risks associated with demolition of buildings that may contain potential hazards (such as lead and/or asbestos associated with building demolition) are not further discussed herein.

The Northwest Airport Way Master Plan EIR requires as mitigation that limited soil sampling is to be conducted to delineate the horizontal and vertical extent of the total petroleum hydrocarbons as diesel (TPH-D) present in the soils near the deep soil sample location. The proposed project would be required to implement Mitigation Measure HAZ-1a, which would ensure that proper soil sampling would occur at the project site, as well as Mitigation Measure HAZ-1b, which would ensure that any onsite wells or septic systems intended to be removed shall

be destroyed under permit and inspection with San Joaquin County Environmental Health Department (as applicable).

Short-Term Impacts

Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. However, under normal conditions, human health and the environment would not exposed to hazardous materials. In addition, Mitigation Measure HYD-1 requires the project applicant to implement a Stormwater Pollution Prevention Plan during construction activities to prevent contaminated runoff from leaving the project site.

Long-Term Impacts

Typically, light industrial/warehouse and commercial/retail land uses do not generate, store, or dispose of significant quantities of hazardous materials. Such uses also do not normally involve dangerous activities that could expose persons onsite or in the surrounding areas to large quantities of hazardous materials. While the specific tenants for this project are not known, general landscaping and maintenance will include the use of pest control, herbicide, and janitorial products such as commercial cleaners.

Small quantities of hazardous materials would be used onsite, including cleaning solvents (such as degreasers, paint thinners, and aerosol propellants), paints (both latex- and oil-based), acids and bases (such as many cleaners), disinfectants, and fertilizers. These substances would be stored in secure areas. The potential risks posed by the use and storage of these hazardous materials are primarily limited to the immediate vicinity of the materials. Transport of these materials would be performed by commercial vendors who would be required to comply with various federal and state laws regarding hazardous materials transportation.

Conclusion

The proposed project would be required to implement Mitigation Measures HAZ-1a and HAZ-1b, which would ensure that the potential for the proposed project to create a significant hazard to the public or environment due to release of hazardous materials would be less than significant. The proposed project would also be required to implement Mitigation Measure HYD-1. Overall, with implementation of these mitigation measures, the proposed project would have a ***less than significant*** impact relative to these issues.

Mitigation Adopted by the City

Implement Mitigation Measure HYD-1.

Mitigation Measure HAZ-1a*: Prior to grading activities, the applicant shall conduct soil sampling in the livestock holding areas, and to implement a soil remediation program. Soil remediation shall be conducted in accordance with California Department of Toxic Substances Control (DTSC) guidelines. Contaminated soil shall be excavated and disposed of at an approved disposal facility. Following excavation, confirmation sampling shall be conducted to confirm whether remaining soil meets acceptable applicable regulatory levels. The excavation shall be backfilled with clean soil.*

Mitigation Measure HAZ-1b*: Prior to grading activities, any onsite wells or septic systems intended to be removed shall be destroyed under permit and inspection with San Joaquin County Environmental Health Department.*

Response c): The Project site is not located within ¼ mile of an existing school. The nearest school (George McParland Elementary School) is located approximately 1.42 miles to the

southeast of the Project site, at its closest point. East Union High School, located east of the Project site, is also approximately 1.60 miles from the Project site. Joseph Widmer Elementary, located west of the Project site, is also approximately 1.20 miles from the Project site. Therefore, implementation of the proposed Project would result in a ***less than significant*** impact relative to this topic.

Response d): According the California Department of Toxic Substances Control (DTSC) there are no Federal Superfund Sites, State Response Sites, or Voluntary Cleanup Sites on, or in the near vicinity of the Project site. The Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5. The nearest sites identified within these databases are located approximately 0.70 miles to the west of the Project site:

- Defense Distribution Depot San Joaquin – Sharpe Site (site CA8210020832): This site is a hazardous waste facility, which has a current status of Undergoing Closure. Operations at DDRW-Sharpe generate various types of hazardous wastes which are stored in containers on-site in Building 605. When a sufficient quantity of hazardous waste has accumulated, a contractor transfers the waste off-site to an approved treatment and/or disposal facility.

- Sharpe Army Depot (39970002): This site was previously known as Sharpe Army Depot and was operated by the U.S. Army. Defense Distribution Depot San Joaquin California (DDJC)-Sharpe was established in 1941 and consists of 727 acres. The Sharpe facility was listed on the federal National Priorities List in July 1987. On July 19, 1989, the U.S. Army, U.S.EPA, the RWQCB, and DTSC entered into a Federal Facility Agreement (FFA) for Sharpe. Past disposal sites include burial areas, burn pits, fire training areas, and leaking underground storage tanks. Soil and groundwater contamination by volatile organic compounds (VOCs), primarily trichloroethylene (TCE) and perchloroethylene (PCE), has been found at the site. Presently, two offsite TCE plumes can be found west of the Central Area as well as in the North Balloon. Elevated arsenic concentrations have also been detected in the soils and groundwater at Sharpe. Lead and chromium contamination has also been found in the soil. DDJC--Sharpe completed its Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Five-Year Review in July of 2020.

Implementation of the proposed Project would result in a ***less than significant*** impact relative to this environmental topic.

Response e): The Federal Aviation Administration (FAA) establishes distances of ground clearance for take-off and landing safety based on such items as the type of aircraft using the airport. The Project site is not located within two miles of a private airstrip or public airport, or within an airport land use plan. The closest airport or airstrip is the Stockton Metropolitan Airport, located approximately 3.4 miles north of the Project site. Implementation of the proposed Project would have a ***less than significant*** impact with regards to this environmental issue.

Response f): The Office of Emergency Services (OES) maintains an Emergency Operations Plan (EOP) that serves as the official Emergency Plan for San Joaquin County. It includes planned operational functions and overall responsibilities of County Departments during an emergency situation. The Emergency Plan also contains a threat summary for San Joaquin County, which addresses the potential for natural, technological and human-caused disasters (County Code, Title 4-3007).

The County OES also prepared a Hazardous Materials Area Plan (§2720 H&S, 2008) that describes the hazardous materials response system developed to protect public health, prevent environmental damage and ensure proper use and disposal of hazardous materials. The plan establishes effective response capabilities to contain and control releases, establishes oversight of long-term cleanup and mitigation of residual releases, and integrates multi-jurisdiction and agency coordination. This plan is now implemented by the San Joaquin County Environmental Health Department.

The San Joaquin County Environmental Health Department maintains a Hazardous Materials Management Plan/ Hazardous Materials Business Plan (HMMP/HMBP). The HMMP/HMBP describes agency roles, strategies and processes for responding to emergencies involving hazardous materials. The Environmental Health Department maintains a Hazardous Materials Database and Risk and Flood Maps available to the public on its website.

In San Joaquin County, all major roads are available for evacuation, depending on the location and type of emergency that arises. The proposed Project does not include any actions that would impair or physically interfere with any of San Joaquin County's emergency plans or evacuation routes. Construction activities are not expected to result in any unknown significant road closures, traffic detours, or congestion that could hinder the emergency vehicle access or evacuation in the event of an emergency. Operational traffic generated by the Project site would not be significant relative to emergency access.

The Project site would provide adequate emergency vehicular access via driveway connections with adjoining roadways and an internal circulation network. All driveways and internal roadways would be designed to accommodate large emergency vehicles such as fire engines. These improvements would contribute to effective emergency response and evacuation, and they would promote efficient circulation in the Project vicinity. Furthermore, the proposed Project does not propose any permanent road closures, lane reductions, or other adverse circulation conditions that may adversely affect emergency response or evacuation in the Project vicinity. Therefore, impacts would be less than significant.

Implementation of the proposed Project would have a ***less than significant*** impact with regards to this environmental issue.

Response g): The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents), and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point, while fuels such as trees have a lower surface area to mass ratio and require more heat to reach the ignition point.

The city has areas with an abundance of flashy fuels (i.e., grassland) in the outlying residential parcels and open lands that, when combined with warm and dry summers with temperatures often exceeding 100 degrees Fahrenheit, create a situation that results in higher risk of wildland fires. Most wildland fires are human caused, so areas with easy human access to land with the appropriate fire parameters generally result in an increased risk of fire.

According to CalFire, the City of Manteca contains areas with "moderate" and "non-wildland fuel" ranks. The areas warranting "moderate" fuel ranks possess combustible material in sufficient quantities combined with topographic characteristics that pose a wildfire risk. CalFire data for

the areas immediately surrounding the Project site also include "moderate" and "non-wildland fuel" ranks. Areas west of Interstate 5, approximately 15 miles or further southwest of the Project site, are designated as "moderate" and "high" fuel ranks.

The Project site is located in an area with a "Local Responsibility Zone (LRA) Unzoned" rank. The site is not located on a steep slope, and is essentially flat. The Project site is also located in an area with existing agricultural and/or urban development, with existing or future agricultural and/or urban development located on all sides. Therefore, this is a ***less than significant*** impact and no mitigation is required.

X. HYDROLOGY AND WATER QUALITY

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

Responses to Checklist Questions

Responses a), c.i), c.ii), c.iii), e):

Construction

Construction activities including grading could temporarily increase soil erosion rates during and shortly after project construction. Construction-related erosion could result in the loss of soil and could adversely affect water quality in nearby surface waters.

Temporary stockpiles of sediment or other materials also have the potential to erode and be carried into the stormwater system and waterways. Construction activities will likely involve the use of gasoline and diesel-powered vehicles and equipment that pose a potential risk of accidental fuel and related chemical releases that could enter the drainage system and degrade water quality. As described below, BMPs would be implemented and maintained just before and during any project construction activities to protect surface water in the drainages and the San Joaquin River during all earthwork activities.

The RWQCB requires a project-specific SWPPP to be prepared for each project that disturbs an area one acre or larger, which includes the Project site. The SWPPP is required to include project specific BMPs that are designed to control drainage and erosion. Mitigation Measure HYD-1 would require the preparation of a SWPPP to ensure that the proposed Project prepares and implements a SWPPP throughout the construction phase of the proposed Project. By implementing and maintaining proper BMPs, the potential for short-term sediment introduction should be minimized. The SWPPP (Mitigation Measure HYD-1) would reduce the potential for the proposed Project to violate water quality standards during construction.

Operation

The infiltration and runoff process is altered when a site is developed. Buildings, sidewalks, roads, and parking lots introduce asphalt, concrete, and roofing materials to the landscape. These materials are relatively impervious, which means that they absorb less rainwater. As impervious surfaces are added to the ground conditions, the natural infiltration process is reduced. As a result, the volume and rate of storm water runoff increases. The increased volumes and rates of storm water runoff can result in flooding if adequate storm drainage facilities are not provided.

There are no rivers, streams, or water courses located on or immediately adjacent to the Project site. As such, there is low potential for the proposed Project to alter a water course, which could lead to on or offsite flooding. Drainage improvements associated with the Project site would be located on the Project site, and the proposed Project would not alter or adversely impact offsite drainage facilities.

The proposed Project would not generate new or altered stormwater discharge into streams. Existing streams/crossings would be maintained, and no new crossings are proposed as part of the proposed Project.

The proposed Project is subject to the requirements of Chapter 13.28 of the Manteca Municipal Code – Stormwater Management and Discharge Control. The purpose of these requirements is to "establish minimum storm water management requirements and controls to protect and safeguard the general health, safety and welfare of the public residing in watersheds within the City of Manteca." These requirements are intended to assist in the protection and enhancement of the water quality of watercourses, water bodies, and wetlands in a manner pursuant to and consistent with the Federal Water Pollution Control Act (Clean Water Act, 33 USC Section 1251 et seq.), Porter- Cologne Water Quality Control Act (California Water Code Section 13000 et seq.) and National Pollutant Discharge Elimination System ("NPDES") Permit No. CAS000004, as such permit is amended and/or renewed.

Additionally, mitigation is proposed that would require the Project applicant to prepare and submit a stormwater quality control plan for the proposed Project as a whole to the City of Manteca for review and approval that would demonstrate adequate water quality protection prior to issuance of building or grading permits. The plan would be required to document the expected target pollutants and types of treatments that would be required of the building site to address those pollutants during operation. The expected polluted runoff from the paved internal roadways and proposed treatment must be included in the plan. The plan would also describe any monitoring effort and performance measures required and what entity would provide oversight to ensure that stormwater quality is sufficiently treated so as not to impede downstream detention basin performance or degrade water quality downstream.

Mitigation Measure HYD-2 requires a drainage plan that demonstrates attainment of pre-project runoff volumes and peak flows prior to release at the outlet canal. As required under Mitigation

Measure HYD-4, the drainage plan must also describe the volume reduction measures and treatment controls used to reach attainment. With implementation of the following mitigation measures, the proposed Project would have a ***less than significant*** impact relative to this environmental topic.

Mitigation Adopted by the City

Mitigation Measure HYD-1*: Prior to the issuance of grading or building permits for each proposed activity within the Master Plan area, the Project applicant shall prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) to the City of Manteca for approval that identifies specific actions and Best Management Practices (BMPs) to prevent stormwater pollution during construction activities. The SWPPP shall identify a practical sequence for BMP implementation, monitoring, and maintenance; site restoration; contingency measures; responsible parties; and agency contacts. The SWPPP shall include but not be limited to the following elements:*

- *Temporary erosion control measures shall be employed for disturbed areas.*
- *Specific measures shall be identified to protect the onsite open drainages during construction of the proposed resort.*
- *Specific measures shall be identified to protect the French Camp Outlet Canal and Drain 3 during any construction activities.*
- *No disturbed surfaces shall be left without erosion control measures in place during the winter and spring months.*
- *Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures.*
- *The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains.*
- *BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the RWQCB to determine adequacy of the measure.*
- *In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season.*

Mitigation Measure HYD-2*: Prior to the issuance of building or grading permits for any development activities that occur pursuant to the Master Plan, the Project applicant shall submit a stormwater quality control plan to the City of Manteca for review and approval. The plan shall include a detailed drainage plan and identify expected site-specific pollutants and required measures to treat those pollutants before they reach the regional detention basins and, ultimately, the French Camp Outlet Canal and San Joaquin River. The approved measures shall be incorporated into the proposed Project. The plan will describe monitoring and performance measures and standards required in order to ensure water quality is adequately protected during operation of all proposed sites within the Project site. Examples of stormwater pollution prevention measures and practices to be incorporated into the plan include but are not limited to:*

- *Strategically placed bioswales and landscaped areas that promote percolation of runoff*

- *Pervious pavement*
- *Roof drains that discharge to landscaped areas*
- *Trash enclosures with screen walls and roofs*
- *Stenciling on storm drains*
- *Curb cuts in parking areas to allow runoff to enter landscaped areas*
- *Rock-lined areas along landscaped areas in parking lots*
- *Catch basins*
- *Oil/water separators*
- *Regular sweeping of parking areas and cleaning of storm drainage facilities*
- *Employee training to inform maintenance personnel of stormwater pollution prevention measures*

Mitigation Measure HYD-4*: Prior to the issuance of building or grading permits for the proposed Project, the Project applicant shall submit a stormwater quality control plan for the project as a whole to the City of Manteca for review and approval. The plan shall include a detailed drainage plan that demonstrates attainment of pre-project runoff requirements prior to release at the outlet canal and describes the volume reduction measures and treatment controls used to reach attainment. The drainage plan shall identify all expected flows from the Project site and the location, size, and type of facilities used to retain and treat the runoff volumes and peak flows to meet pre-project conditions. The approved drainage plan shall be incorporated into the proposed Project.*

Response b): The Master Plan area is located in the Eastern San Joaquin Subbasin. Groundwater levels in Eastern San Joaquin County have been in decline, due to overdraft, and there is a significant cone of depression east of Stockton and northeast of the Project site. There may be some contribution from the site in support of agricultural or domestic uses, but there are no onsite or nearby domestic wells that would be directly affected. The specific volume, location, and seasonal timing of recharge would not be expected to adversely impact overall groundwater supply in the area; therefore, this project does not have the potential to significantly interfere with groundwater recharge.

The proposed Project uses would be served with potable water for domestic purposes, irrigation, and fire flow from the City of Manteca, through the City's Municipal Well System and an agreement with SSJID for treated surface water. A Water Supply Assessment was prepared by the City of Manteca and concluded that adequate long-term water supplies exist to serve the Master Plan uses, including the uses at the Project site. As such, the Master Plan uses would not contribute to groundwater overdraft.

The proposed Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted). In addition, construction activities would be temporary and minor. Therefore, project construction and operation would not substantially deplete or interfere with groundwater supply or quality. This impact would be ***less than significant***.

Response c.iv), d): The southwestern corner of the Project site is located within the 500-year flood zone. The 500-year flood zone by definition indicates an area protected by levees from the 1% annual chance flood.

The risks of flooding hazards on the Project site and immediate surroundings are primarily related to large, infrequent storm events. These risks of flooding are greatest during the rainy season between November and March. Flooding events can result in damage to structures, injury or loss of human and animal life, exposure to waterborne diseases, and damage to infrastructure. In addition, standing floodwater can destroy agricultural crops, undermine infrastructure and structural foundations, and contaminate groundwater.

In 2007, the State of California passed a series of laws referred to as Senate Bill (SB) 5 directing the Department of Water Resources (DWR) to prepare flood maps for the Central Valley flood system and the State Plan of Flood Control, which includes a system of levees and flood control facilities located in the Central Valley. This legislation set specific locations within the area affected by the 200-year flood event as the urban level of flood protection (ULOP) for the Central Valley.

SB5 "requires all cities and counties within the Sacramento-San Joaquin Valley, as defined in California Government Code Sections 65007(h) and (j), to make findings related to an ULOP or national Federal Emergency Management Agency (FEMA) standard of flood protection before: (1) entering into a development agreement for any property that is located within a flood hazard zone; (2) approving a discretionary permit or other discretionary entitlement, or ministerial permit that would result in the construction of a new residence, for a project that is located within a flood hazard zone; or (3) approving a tentative map, or a parcel map for which a tentative map was not required, for any subdivision that is located within a flood hazard zone." In 2016, the City of Manteca approved a Memorandum of Understanding to pursue 200-year urban level of flood protection to satisfy SB 5.

However, according to FEMA's Flood Map Service Center (FIRM Panel #06077C0610F), the Project site is located outside of the 100-year floodplain. Additionally, according to the USACE, the Project site is located outside of the 200-year floodplain. Therefore, the release of pollutants due to project inundation is unlikely, either during project construction or operation.

The Project site is located within a dam inundation area for the New Melones Dam and the San Luis Dam. Dam failure is generally a result of structural instability caused by improper design or construction, instability resulting from seismic shaking, or overtopping and erosion of the dam. Larger dams that are higher than 25 feet or with storage capacities over 50 acre-feet of water are regulated by the California Dam Safety Act, which is implemented by the California Department of Water Resources, Division of Safety of Dams (DSD). The DSD is responsible for inspecting and monitoring these dams. The Act also requires that dam owners submit to the California Office of Emergency Services inundation maps for dams that would cause significant loss of life or personal injury as a result of dam failure. The County Office of Emergency Services is responsible for developing and implementing a Dam Failure Plan that designates evacuation plans, the direction of floodwaters, and provides emergency information.

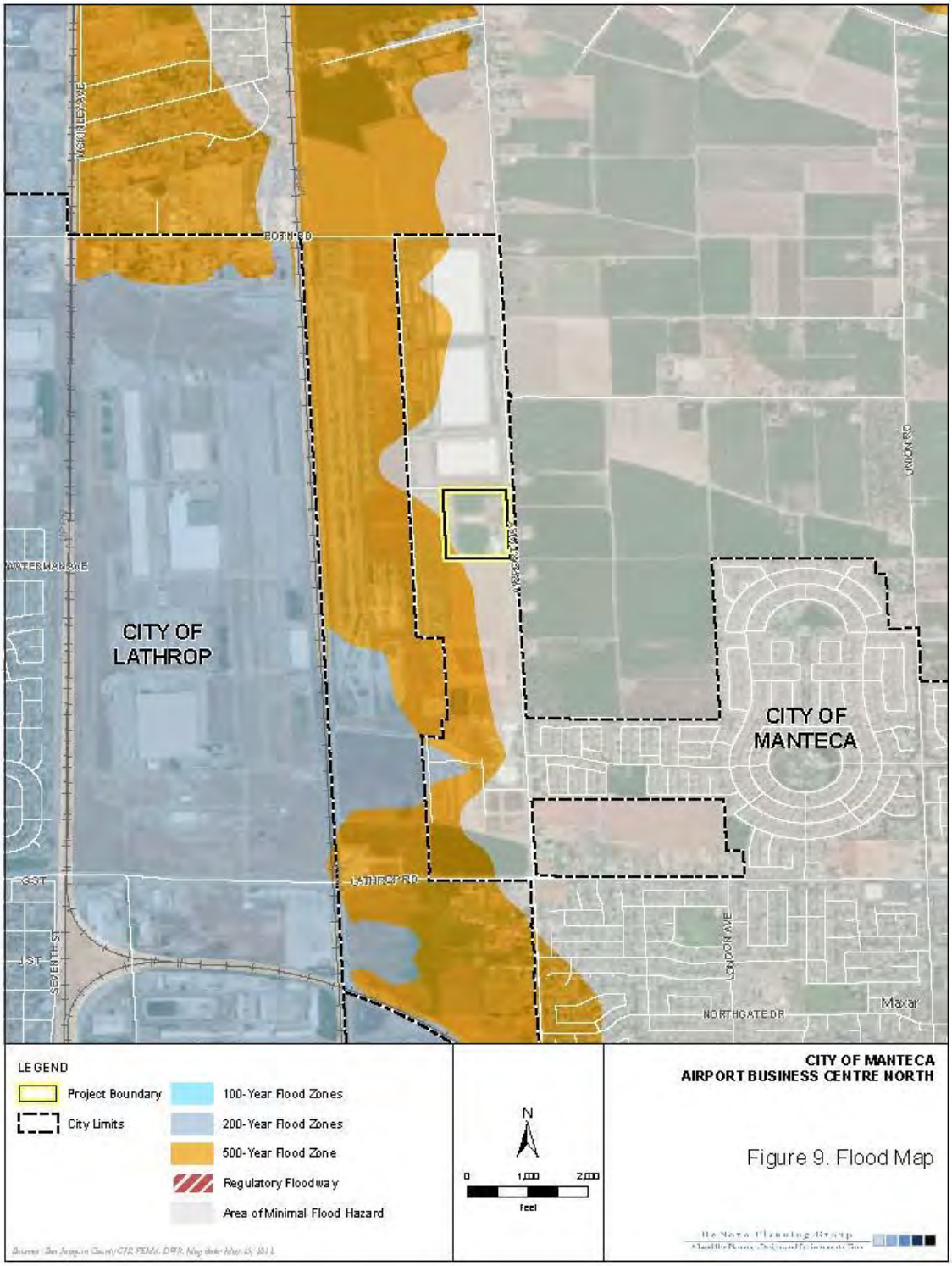
Regular inspection by DSD and maintenance by the dam owners ensure that the dams are kept in safe operating condition. As such, failure of these dams is considered to have an extremely low probability of occurring and is not considered to be a reasonably foreseeable event.

The proposed Project would not expose people or structures to a significant risk of loss, injury or death involving flooding as a result of the failure of a levee or dam.

The Project site is not anticipated to be inundated by a tsunami because it is located at an elevation of approximately 23 feet above sea level and is approximately 60 miles away from the Pacific Ocean which is the closest ocean waterbody.

The Project site is not anticipated to be inundated by a seiche because it is not located in close proximity to a water body capable of creating a seiche.

Implementation of the proposed Project would have a ***less than significant*** impact relative to the risk of release of pollutants due to project inundation by flood hazards, seiches, and tsunamis, or the potential to alter the course of a stream or river in a manner that would impede or redirect flood flows.


CITY OF LATHROP
CITY OF MANTECA
MACARTHUR DR
UNION RD
LATHROP RD
LONDON AVE
NORTHGATE DR
SEVENTH ST
WATERMAN AVE
Maxar
LEGEND
Project Boundary
City Limits
100-Year Flood Zones
200-Year Flood Zones
500-Year Flood Zone
Regulatory Floodway
Area of Minimal Flood Hazard
N
0
1,000
2,000
Feet
CITY OF MANTECA
AIRPORT BUSINESS CENTRE NORTH
Figure 9. Flood Map

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XI. LAND USE AND PLANNING

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

Responses to Checklist Questions

Response a): The Project site is located within the Manteca City limits and is adjacent primarily to existing urban and agricultural uses. The proposed Project would not physically divide an established community. Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

Response b): The key land use planning documents that are directly related to, or that establish a framework within which the proposed Project must be consistent, include:

- City of Manteca General Plan; and
- City of Manteca Zoning Ordinance.

The Project site is designated as LI by the City's General Plan Land Use Map, and the Project site is zoned MP – Master Plan for the City of Manteca Zoning Map.

According to the City of Manteca 2023 General Plan, the LI designation provides for industrial parks, warehouses, distribution centers, light manufacturing, public and quasi-public uses and similar and compatible uses.

The purpose of the MP - Master Plan Zoning District is to establish a process for the consideration and regulation of areas suitable for proposed comprehensive development with detailed development plans and of those areas that require special planning.

The proposed Project would not require changes to any land use designations, and would be consistent with the existing zoning, and is supportive to the utility demands for each of these uses. In addition, the proposed Project would not conflict with any goals, policies, or implementing actions contained within the General Plan. Therefore, impacts to land use compatibility would be ***less than significant***.

XII. MINERAL RESOURCES

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

Existing Setting

The California Geological Survey identifies areas that contain or that could contain significant mineral resources so as to provide context for local agency land use decisions and to protect availability of known mineral resources. Classifications ranging from Mineral Resource Zone (MRZ) -1 to MRZ-4 are based on knowledge of a resource's presence and the quality of the resource. No mineral extraction operations are known to exist in or adjacent to the Project site. The Project site is within MRZ-1, as delineated by the Mineral Resources and Mineral Hazards Mapping Program (MRMHMP) (California Department of Conservation, 2012). MRZ-1 is defined by the MRMHMP as being in areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.

Responses to Checklist Questions

Responses a), b): As noted above, the Project site is located within MRZ-1. The proposed Project would not result in the loss of an available known mineral resources nor result in the loss of availability of locally-important mineral resource recovery sites delineated in a local general plan, specific plan, or other land use plan. Additionally, there are no oil and gas extraction wells within or near the property. Therefore, the impact is ***less than significant*** to this environmental topic.

XIII. NOISE

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

Environmental Setting

Fundamentals of Acoustics

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10-dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10-dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool is the average, or equivalent, sound level (Leq), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The Leq is the foundation of the composite noise descriptor, Ldn, and shows very good correlation with community response to noise.

The day/night average level (DNL or Ldn) is based upon the average noise level over a 24-hour day, with a +10-decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because Ldn represents

Table NOISE-1 lists several examples of the noise levels associated with common situations.

TABLE NOISE-1: TYPICAL NOISE LEVELS

Common Outdoor Activities	*Noise Level (dBA)*	*Common Indoor Activities*
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft)	--100--	
Gas Lawn Mower at 1 m (3 ft)	--90--	
Diesel Truck at 15 m (50 ft), at 80 km/hr (50 mph)	--80--	Food Blender at 1 m (3 ft) Garbage Disposal at 1 m (3 ft)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft)	--70--	Vacuum Cleaner at 3 m (10 ft)
Commercial Area Heavy Traffic at 90 m (300 ft)	--60--	Normal Speech at 1 m (3 ft)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

SOURCE: CALTRANS, TECHNICAL NOISE SUPPLEMENT, TRAFFIC NOISE ANALYSIS PROTOCOL. SEPTEMBER, 2013.

Effects of Noise on People

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction;
- Interference with activities such as speech, sleep, and learning; and
- Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise

level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference;
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10 dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6 dBA per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

Existing and Future Noise and Vibration Environments

Existing and Surrounding Land Uses

- North: Existing commercial uses border the northern boundary.
- East: South Airport Way and existing single family residential uses are located east of the project site.
- South: Existing farmland and commercial uses border the southern boundary of the overall project site.
- West: Commercial uses border the western boundary of the overall project site.

Existing General Ambient Noise Levels

To quantify the existing ambient noise environment in the Project Vicinity, a continuous (24-hour) noise level measurement was conducted on the project site on May 12th, 2022. The noise measurement location is shown on Figure 3.10-1 in the Noise Study (Appendix C). The noise level measurement survey results are provided in Table Noise-2. Appendix B of Appendix F shows the complete results of the noise monitoring survey.

The sound level meter was programmed to collect hourly noise level intervals at each site during the survey. The maximum value (L_{max}) represents the highest noise level measured during an interval. The average value (L_{eq}) represents the energy average of all of the noise measured during an interval. The median value (L_{50}) represents the sound level exceeded 50 percent of the time during an interval.

A Larson Davis Laboratories (LDL) Model 820 precision integrating sound level meter was used for the ambient noise level measurement survey. The meter was calibrated before and after use with an LDL Model CAL200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

TABLE NOISE-1: SUMMARY OF EXISTING BACKGROUND NOISE MEASUREMENT DATA

SITE	LOCATION	DATE/TIME	L_{DN}	AVERAGE MEASURED HOURLY NOISE LEVELS, DB					
				DAYTIME (7AM-10PM)			NIGHTTIME (10PM-7AM)		
				L_{EQ}	L_{50}	L_{MAX}	L_{EQ}	L_{50}	L_{MAX}
Continuous (24-hour) Noise Level Measurements									
LT-1	Eastern side of project site, 160 feet to Airport Way Centerline	5/12/2022	67	62	58	79	60	54	79

SOURCE: SAXELBY ACOUSTICS, 2022.

Existing and Future Traffic Noise Environment at Sensitive Receptors

Off-Site Traffic Noise Impact Assessment Methodology

To predict existing and cumulative noise levels due to traffic, the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The model is based upon the Calveno reference noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions.

Traffic noise analysis was conducted for roadways which would affect sensitive receptors within the project area as well as receptors which lie outside of the overall project site. Traffic noise level changes are presented by roadway rather than by planning boundary.

Traffic volumes for existing conditions were obtained from the traffic data prepared for the project (Fehr & Peers, 2022). Truck percentages and vehicle speeds on the local area roadways were estimated from field observations.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segment. Where traffic noise barriers are predominately along a roadway segment, a -5 offset was added to the noise prediction model to account for various noise barrier heights. A -5 to dB offset was also applied where outdoor activity areas are shielded by intervening buildings. In some locations, sensitive receptors may be located at distances which vary from the assumed calculation distance and may experience shielding from intervening barriers or sound walls. However, the traffic noise analysis is believed to be representative of the majority of sensitive receptors located closest to the project-area roadway segments analyzed in this report.

Table Noise-3 shows the existing traffic noise levels in terms of L_{dn} at closest sensitive receptors along each roadway segment. A complete listing of the FHWA Model input data is contained in Appendix C of Appendix F.

TABLE NOISE-2: EXISTING TRAFFIC NOISE LEVELS

ROADWAY	SEGMENT	EXTERIOR TRAFFIC NOISE LEVEL, dB L_{DN}
Roth Road	Between Intermodal and Airport Way	51.9
Roth Road	Between Intermodal and McKinley Ave	66.0
Roth Road	Between McKinley Ave. and Harlan Road	50.3
Roth Road	Between Harlan Rd. and NB I-5 Off/On-Ramps	54.3
Roth Road	Between NB I-5 Off/On Ramps and SB I-5 Off/On Ramps	54.0
Airport Way	French Camp Road and Roth Road	64.9
Airport Way	Roth Road and Lovelace Road	61.4
Airport Way	Lovelace Rd. and Daisywood Dr.	64.2
Airport Way	Daisywood Dr. and Pinnacle Dr.	61.1
Airport Way	Pinnacle Dr. and Lathrop Rd.	67.5
Airport Way	Lathrop Rd. and Northgate Dr.	67.4
Airport Way	Northgate Dr. and Louise Ave.	66.5
Airport Way	Louise Ave. and Crom Ave.	65.2
Airport Way	Crom Ave. and Yosemite Ave.	68.7
Lathrop Road	Union Rd. and Airport Way	70.8
Lathrop Road	Airport Way and McKinley Ave.	51.3
Lathrop Road	McKinley Ave. and 5th Street	68.7
Lathrop Road	5th Street and Harlan Rd.	67.6
Lathrop Road	Harlan Rd. and NB I-5 Off/On-Ramps	55.9
Lathrop Road	Between NB I-5 Off/On Ramps and SB I-5 Off/On Ramps	49.5
Spartan Way	SB I-5 Off/On Ramps and Golden Valley Parkway	34.2
Intermodal Way	Roth Road and 5.11 Tactical Building	31.9
Intermodal Way	5.11 Tactical Building and Tactical Way	29.9

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM FEHR & PEERS AND SAXELBY ACOUSTICS. 2022.

Predicted Exterior Traffic Noise Levels

Implementation of the proposed project would result in an increase in ADT volumes on the local roadway network, and consequently, an increase in noise levels from traffic sources along affected segments. Tables Noise-4 and Noise-5 show the predicted traffic noise level increases on the local roadway network for Existing, Existing + Project, Cumulative No Project, and Cumulative + Project conditions. Appendix C of Appendix F provides the complete inputs and results of the FHWA traffic noise modeling.

TABLE NOISE-3: EXISTING AND EXISTING PLUS PROJECT TRAFFIC NOISE LEVELS

		NOISE LEVELS (L_{DN}, dB) AT NEAREST SENSITIVE RECEPTORS				
		EXISTING	*EXISTING + PROJECT*	*CHANGE*	*EX. GP CRITERIA*[1]	*SIGNIFICANT UNDER EX. GP?*
ROADWAY	*SEGMENT*				*PROPOSED GP CRITERIA*[2]	*SIGNIFICANT UNDER GP UPDATE?*
Roth Road	Between Intermodal and Airport Way	51.9	51.9	0.0	>60 dBA	No
					+5 dBA	No
Roth Road	Between Intermodal and McKinley Ave	66.0	66.1	0.1	+5-10 dBA	No
					+1.5 dBA	No
Roth Road	Between McKinley Ave. and Harlan Road	50.3	50.4	0.1	>60 dBA	No
					+5 dBA	No
Roth Road	Between Harlan Rd. and NB I-5 Off/On-Ramps	54.3	54.4	0.1	>60 dBA	No
					+5 dBA	No
Roth Road	Between NB I-5 Off/On Ramps and SB I-5 Off/On Ramps	54.0	54.1	0.1	>60 dBA	No
					+5 dBA	No
Airport Way	French Camp Road and Roth Road	64.9	65.0	0.1	+5-10 dBA	No
					+3 dBA	No
Airport Way	Roth Road and Lovelace Road	61.4	61.5	0.1	+5-10 dBA	No
					+3 dBA	No
Airport Way	Lovelace Rd. and Daisywood Dr.	64.2	64.3	0.1	+5-10 dBA	No
					+3 dBA	No
Airport Way	Daisywood Dr. and Pinnacle Dr.	61.1	61.6	0.5	+5-10 dBA	No
					+3 dBA	No
Airport Way	Pinnacle Dr. and Lathrop Rd.	67.5	67.9	0.4	+5-10 dBA	No
					+1.5 dBA	No
Airport Way	Lathrop Rd. and Northgate Dr.	67.4	67.6	0.2	+5-10 dBA	No
					+1.5 dBA	No
Airport Way	Northgate Dr. and Louise Ave.	66.5	66.6	0.1	+5-10 dBA	No
					+1.5 dBA	No
Airport Way	Louise Ave. and Crom Ave.	65.2	65.3	0.1	+5-10 dBA	No
					+1.5 dBA	No
Airport Way	Crom Ave. and Yosemite Ave.	68.7	68.8	0.1	+5-10 dBA	No
					+1.5 dBA	No
Lathrop Road	Union Rd. and Airport Way	70.8	70.9	0.1	+5-10 dBA	No
					+1.5 dBA	No
Lathrop Road	Airport Way and McKinley Ave.	51.3	51.3	0.0	>60 dBA	No
					+5 dBA	No
Lathrop Road	McKinley Ave. and 5th Street	68.7	68.7	0.0	+5-10 dBA	No
					+1.5 dBA	No
Lathrop Road	5th Street and Harlan Rd.	67.6	67.7	0.1	+5-10 dBA	No
					+1.5 dBA	No
Lathrop Road	Harlan Rd. and NB I-5 Off/On-Ramps	55.9	55.9	0.0	>60 dBA	No
					+5 dBA	No
Lathrop Road	Between NB I-5 Off/On Ramps and SB I-5 Off/On Ramps	49.5	49.5	0.0	>60 dBA	No
					+5 dBA	No
Spartan Way	SB I-5 Off/On Ramps and Golden Valley Parkway	34.2	34.3	0.1	>60 dBA	No
					+5 dBA	No
Intermodal Way	Roth Road and 5.11 Tactical Building	31.9	32.6	0.7	>60 dBA	No
					+5 dBA	No

[1] *EXISTING GP CRITERIA - IN MAKING A DETERMINATION OF IMPACT UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA), A SUBSTANTIAL INCREASE WILL OCCUR IF AMBIENT NOISE LEVELS ARE INCREASED BY 10 DB OR MORE. AN INCREASE FROM 5-10 DB MAY BE SUBSTANTIAL. FACTORS TO BE CONSIDERED IN DETERMINING THE SIGNIFICANCE OF INCREASES FROM 5-10 DB INCLUDE:*

- *THE RESULTING NOISE LEVELS*
- *THE DURATION AND FREQUENCY OF THE NOISE*
- *THE NUMBER OF PEOPLE AFFECTED*
- *THE LAND USE DESIGNATION OF THE AFFECTED RECEPTOR SITES*
- *PUBLIC REACTIONS/CONTROVERSY AS DEMONSTRATED AT WORKSHOPS/HEARINGS, OR BY CORRESPONDENCE*
- *PRIOR CEQA DETERMINATIONS BY OTHER AGENCIES SPECIFIC TO THE PROJECT*

[2] *PROPOSED GP CRITERIA - IN MAKING A DETERMINATION OF IMPACT UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA), A SUBSTANTIAL INCREASE WILL OCCUR IF AMBIENT NOISE LEVELS ARE HAVE A SUBSTANTIAL INCREASE. GENERALLY, A 3 DB INCREASE IN NOISE LEVELS IS BARELY PERCEPTIBLE, AND A 5 DB INCREASE IN NOISE LEVELS IS CLEARLY PERCEPTIBLE. THEREFORE, INCREASES IN NOISE LEVELS SHALL BE CONSIDERED TO BE SUBSTANTIAL WHEN THE FOLLOWING OCCURS:*

- *WHEN EXISTING NOISE LEVELS ARE LESS THAN 60 DB, A 5 DB INCREASE IN NOISE WILL BE CONSIDERED SUBSTANTIAL;*
- *WHEN EXISTING NOISE LEVELS ARE BETWEEN 60 DB AND 65 DB, A 3 DB INCREASE IN NOISE WILL BE CONSIDERED SUBSTANTIAL;*
- *WHEN EXISTING NOISE LEVELS EXCEED 65 DB, A 1.5 DB INCREASE IN NOISE WILL BE CONSIDERED SUBSTANTIAL.*

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM FEHR & PEERS AND SAXELBY ACOUSTICS. 2022.

TABLE NOISE-4: CUMULATIVE AND CUMULATIVE + PROJECT TRAFFIC NOISE LEVELS

		NOISE LEVELS (L_{DN}, DB) AT NEAREST SENSITIVE RECEPTORS				
		CUMULATIVE	*CUMULATIVE + PROJECT*	*CHANGE*	*EX. GP CRITERIA[1]*	*SIGNIFICANT UNDER EX. GP?*
ROADWAY	*SEGMENT*				*PROPOSED GP CRITERIA[2]*	*SIGNIFICANT UNDER GP UPDATE?*
Roth Road	Between Intermodal and Airport Way	54.5	54.5	0.0	>60 dBA	No
					+5 dBA	No
Roth Road	Between Intermodal and McKinley Ave	68.6	68.7	0.1	+5-10 dBA	No
					+1.5 dBA	No
Roth Road	Between McKinley Ave. and Harlan Road	53.3	53.3	0.0	>60 dBA	No
					+5 dBA	No
Roth Road	Between Harlan Rd. and NB I-5 Off/On-Ramps	56.5	56.5	0.0	>60 dBA	No
					+5 dBA	No
Roth Road	Between NB I-5 Off/On Ramps and SB I-5 Off/On Ramps	59.8	59.9	0.1	>60 dBA	No
					+5 dBA	No
Airport Way	French Camp Road and Roth Road	68.7	68.8	0.1	+5-10 dBA	No
					+1.5 dBA	No
Airport Way	Roth Road and Lovelace Road	66.1	66.1	0.0	+5-10 dBA	No
					+1.5 dBA	No
Airport Way	Lovelace Rd. and Daisywood Dr.	67.8	67.9	0.1	+5-10 dBA	No
					+1.5 dBA	No
Airport Way	Daisywood Dr. and Pinnacle Dr.	64.4	64.6	0.2	+5-10 dBA	No
					+3 dBA	No
Airport Way	Pinnacle Dr. and Lathrop Rd.	72.0	72.1	0.1	+5-10 dBA	No
					+1.5 dBA	No
Airport Way	Lathrop Rd. and Northgate Dr.	71.0	71.1	0.1	+5-10 dBA	No
					+1.5 dBA	No
Airport Way	Northgate Dr. and Louise Ave.	69.4	69.5	0.1	+5-10 dBA	No
					+1.5 dBA	No

ROADWAY	SEGMENT	NOISE LEVELS (L_{DN}, dB) AT NEAREST SENSITIVE RECEPTORS				
		CUMULATIVE	CUMULATIVE + PROJECT	CHANGE	EX. GP CRITERIA[1] / PROPOSED GP CRITERIA[2]	SIGNIFICANT UNDER EX. GP? / SIGNIFICANT UNDER GP UPDATE?
Airport Way	Louise Ave. and Crom Ave.	67.1	67.2	0.1	+5-10 dBA	No
					+1.5 dBA	No
Airport Way	Crom Ave. and Yosemite Ave.	70.4	70.5	0.1	+5-10 dBA	No
					+1.5 dBA	No
Lathrop Road	Union Rd. and Airport Way	72.0	72.0	0.0	+5-10 dBA	No
					+1.5 dBA	No
Lathrop Road	Airport Way and McKinley Ave.	51.9	51.9	0.0	>60 dBA	No
					+5 dBA	No
Lathrop Road	McKinley Ave. and 5th Street	69.6	69.6	0.0	+5-10 dBA	No
					+1.5 dBA	No
Lathrop Road	5th Street and Harlan Rd.	68.5	68.6	0.1	+5-10 dBA	No
					+1.5 dBA	No
Lathrop Road	Harlan Rd. and NB I-5 Off/On-Ramps	57.5	57.5	0.0	>60 dBA	No
					+5 dBA	No
Lathrop Road	Between NB I-5 Off/On Ramps and SB I-5 Off/On Ramps	53.3	53.3	0.0	>60 dBA	No
					+5 dBA	No
Spartan Way	SB I-5 Off/On Ramps and Golden Valley Parkway	41.4	41.4	0.0	>60 dBA	No
					+5 dBA	No
Intermodal Way	Roth Road and 5.11 Tactical Building	33.5	34.0	0.5	>60 dBA	No
					+5 dBA	No
Intermodal Way	5.11 Tactical Building and Tactical Way	32.7	33.3	0.6	>60 dBA	No
					+5 dBA	No

[1] EXISTING GP CRITERIA - IN MAKING A DETERMINATION OF IMPACT UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA), A SUBSTANTIAL INCREASE WILL OCCUR IF AMBIENT NOISE LEVELS ARE INCREASED BY 10 DB OR MORE. AN INCREASE FROM 5-10 DB MAY BE SUBSTANTIAL. FACTORS TO BE CONSIDERED IN DETERMINING THE SIGNIFICANCE OF INCREASES FROM 5-10 DB INCLUDE:

- *THE RESULTING NOISE LEVELS*
- *THE DURATION AND FREQUENCY OF THE NOISE*
- *THE NUMBER OF PEOPLE AFFECTED*
- *THE LAND USE DESIGNATION OF THE AFFECTED RECEPTOR SITES*
- *PUBLIC REACTIONS/CONTROVERSY AS DEMONSTRATED AT WORKSHOPS/HEARINGS, OR BY CORRESPONDENCE*
- *PRIOR CEQA DETERMINATIONS BY OTHER AGENCIES SPECIFIC TO THE PROJECT*

[2] PROPOSED GP CRITERIA - IN MAKING A DETERMINATION OF IMPACT UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA), A SUBSTANTIAL INCREASE WILL OCCUR IF AMBIENT NOISE LEVELS ARE HAVE A SUBSTANTIAL INCREASE. GENERALLY, A 3 DB INCREASE IN NOISE LEVELS IS BARELY PERCEPTIBLE, AND A 5 DB INCREASE IN NOISE LEVELS IS CLEARLY PERCEPTIBLE. THEREFORE, INCREASES IN NOISE LEVELS SHALL BE CONSIDERED TO BE SUBSTANTIAL WHEN THE FOLLOWING OCCURS:

- *WHEN EXISTING NOISE LEVELS ARE LESS THAN 60 DB, A 5 DB INCREASE IN NOISE WILL BE CONSIDERED SUBSTANTIAL;*
- *WHEN EXISTING NOISE LEVELS ARE BETWEEN 60 DB AND 65 DB, A 3 DB INCREASE IN NOISE WILL BE CONSIDERED SUBSTANTIAL;*
- *WHEN EXISTING NOISE LEVELS EXCEED 65 DB, A 1.5 DB INCREASE IN NOISE WILL BE CONSIDERED SUBSTANTIAL.*

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM FEHR & PEERS AND SAXELBY ACOUSTICS. 2022.

Based upon data in Tables Noise-4 and Noise-5, the proposed project is predicted to result in a maximum traffic noise level increase of 1.5 dB.

Evaluation of Future Operational Noise at Off-Site Noise-Sensitive Receptors

Operational Noise Levels

The primary noise generating components of the new commercial development would be truck movements, auto circulation, and loading dock activity. The following is a list of assumptions used for the noise modeling. The data used is based upon a combination of manufacturer's provided data and Saxelby Acoustics data from similar operations.

Loading Dock Noise Generation: To determine typical noise levels associated with the proposed loading docks, noise level measurement data from a United Natural Foods, Inc. (UNFI) warehouse was used. The noise level measurements were conducted at a distance of 200 feet from the center of the loading dock and circulation area. Activities during the peak hour of loading dock activities included truck arrival/departures, truck idling, truck backing, air brake release, and operation of truck-mounted refrigeration units.

The results of the loading dock noise measurements indicate that a busy hour generated an average noise level of 61 dBA Leq at a distance of 200 feet from the center of the loading dock truck maneuvering lanes. This analysis assumes that the proposed loading docks would operate at this level of activity in a busy hour during either daytime (7:00 a.m. to 10:00 p.m.) or nighttime (10:00 p.m. to 7:00 a.m.).

Parking Lot Circulation: Based upon the project traffic study, the peak hour trips for the project would be 124 passenger vehicles and 23 tractor-trailers. Based upon noise measurements conducted of vehicle movements in parking lots, the sound exposure level (SEL) for a single passenger vehicle is 71 dBA at a distance of 50 feet while the SEL of a tractor-trailer is 85 dBA at the same distance.

Saxelby Acoustics used the SoundPLAN noise prediction model. Inputs to the model included sound power levels for the proposed commercial uses, existing and proposed buildings, terrain type, and locations of sensitive receptors. These predictions are made in accordance with International Organization for Standardization (ISO) standard 9613-2:1996 (Acoustics – Attenuation of sound during propagation outdoors). ISO 9613 is the most commonly used method for calculating exterior noise propagation. Figure 3.10-2 shows the noise level contours resulting from operation of the project.

Construction Noise Environment

During the construction of the proposed project noise from construction activities would temporarily add to the noise environment in the project vicinity. As shown in Noise-6, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dB at a distance of 50 feet.

TABLE NOISE-6: CONSTRUCTION EQUIPMENT NOISE

Type of Equipment	*Maximum Level, dBA at 50 feet*
Auger Drill Rig	84
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85

Source: Roadway Construction Noise Model User's Guide. Federal Highway Administration. FHWA-HEP-05-054. January 2006.

Construction Vibration Environment

The primary vibration-generating activities associated with the proposed project would occur during construction when activities such as grading, utilities placement, and parking lot construction occur. Table Noise-7 shows the typical vibration levels produced by construction equipment.

TABLE NOISE-7: VIBRATION LEVELS FOR VARIOUS CONSTRUCTION EQUIPMENT

Type of Equipment	*Peak Particle Velocity at 25 feet (inches/second)*	*Peak Particle Velocity at 50 feet (inches/second)*	*Peak Particle Velocity at 100 feet (inches/second)*
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.001	0.000
Auger/drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009
Vibratory Compactor/roller	0.210 (Less than 0.20 at 26 feet)	0.074	0.026

Source: Transit Noise and Vibration Impact Assessment Guidelines. Federal Transit Administration. May 2006.

Regulatory Setting

Federal

There are no federal regulations related to noise that apply to the Proposed Project.

State

There are no state regulations related to noise that apply to the Proposed Project.

Local

City of Manteca General Plan

Exterior and interior noise standards for residential land uses are established within the City of Manteca General Plan Noise Element. Policies contained in the Noise Element applicable to the proposed project include:

The City of Manteca General Plan – Existing (2003) General Plan

The City of Manteca General Plan Noise Element contains goals, policies, and implementation measures for assessing noise impacts within the City. Listed below are the noise goals, policies, and implementation measures that are applicable to the proposed Project (City of Manteca as amended through 2016):

Goals: Noise

- N-1. Protect the residents of Manteca from the harmful and annoying effects of exposure to excessive noise.
- N-3. Ensure that the downtown core noise levels remain acceptable and compatible with commercial and higher density residential land uses.
- N-4. Protect public health and welfare by eliminating existing noise problems where feasible, by establishing standards for acceptable indoor and outdoor noise, and by preventing significant increases in noise levels.
- N-5. Incorporate noise considerations into land use planning decisions, and guide the location and design of transportation facilities to minimize the effects of noise on adjacent land uses.

Policies: Noise

- N-P-2. New development of residential or other noise-sensitive land uses will not be permitted in noise-impacted areas unless effective mitigation measures are incorporated into the project design to satisfy the performance standards in Table 9-1.

TABLE NOISE-8: MAXIMUM ALLOWABLE NOISE EXPOSURE MOBILE NOISE SOURCES

Land Use[4]	*Outdoor Activity Areas[1]*	*Interior Spaces*	
		Ldn/CNEL, dB	*Leq/CNEL, dB[3]*
Residential	60[2]	45	--
Transient Lodging	60[2]	45	--
Hospitals, Nursing Homes	60[2]	45	--
Theatres, Auditoriums, Music Halls	--	--	35
Churches, Music Halls	60[2]	--	40
Office Buildings	65	--	45
Schools, Libraries, Museums	--	--	45
Playgrounds, Neighborhood Parks	70	--	--

Notes: [1] Outdoor activity areas for residential development are considered to be backyard patios or decks of single family dwellings, and the common areas where people generally congregate for multi-family developments. Outdoor activity areas for non-residential developments are considered to be those common areas where people generally congregate, including pedestrian plazas, seating areas, and outside lunch facilities. Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.

[2] In areas where it is not possible to reduce exterior noise levels to 60 dB L_{dn} or below using a practical application of the best noise-reduction technology, an exterior noise level of up to 65 L_{dn} will be allowed.

[3] Determined for a typical worst-case hour during periods of use.

[4] Where a proposed use is not specifically listed on the table, the use shall comply with the noise exposure standards for the nearest similar use as determined by the City.

Source: City of Manteca General Plan, Noise Element, Table 9-1.

- N-P-3. The City may permit the development of new noise-sensitive uses only where the noise level due to fixed (non-transportation) noise sources satisfies the noise level standards of Table 9-2. Noise mitigation may be required to meet Table 9-2 performance standards.

TABLE NOISE-9: PERFORMANCE STANDARDS FOR STATIONARY NOISE SOURCES OR PROJECTS AFFECTED BY STATIONARY NOISE SOURCES [1,2]

Noise Level Descriptor	*Daytime (7 AM – 10 PM)*	*Nighttime (10 PM – 7 AM)*
Hourly Leq, dB	50	45
Maximum Level, dB	70	65

Notes: [1] Each of the noise levels specified above should be lowered by five (5) dB for simple noise tones, noises consisting primarily of speech or music, or recurring impulsive noises. Such noises are generally considered by residents to be particularly annoying and are a primary source of noise complaints.

[2] No standards have been included for interior noise levels. Standard construction practices should, with the exterior noise levels identified, result in acceptable interior noise levels.

Source: City of Manteca General Plan, Noise Element, Table 9-2.

- N-P-5. In accord with the Table 9-2 standards, the City shall regulate construction-related noise impacts on adjacent uses.

Implementation Measures: Noise

- N-I-1. New development in residential areas with an actual or projected exterior noise level of greater than 60 dB Ldn will be conditioned to use mitigation measures to reduce exterior noise levels to less than or equal to 60 dB Ldn.
- N-I-3. In making a determination of impact under the California Environmental Quality Act (CEQA), a substantial increase will occur if ambient noise levels are increased by 10 dB or more. An increase from 5-10 dB may be substantial. Factors to be considered in determining the significance of increases from 5-10 dB include:
    - the resulting noise levels
    - the duration and frequency of the noise
    - the number of people affected
    - the land use designation of the affected receptor sites
    - public reactions or controversy as demonstrated at workshops or hearings, or by correspondence
    - prior CEQA determinations by other agencies specific to the project
- N-I-4. Control noise at the source through use of insulation, berms, building design and orientation, buffer space, staggered operating hours and other techniques. Use noise barriers to attenuate noise to acceptable levels.

The City of Manteca General Plan – Proposed General Plan Update

It is expected that the City's General Plan update may be adopted prior to the approval of the 320 Airport Way project. Therefore, the goals and policies of the proposed General Plan are also considered in this document. The City of Manteca General Plan Update noise goals, policies, and implementation measures are included below:

Goals

- Goal S-5: Protect the quality of life by protecting the community from harmful and excessive noise.

Policies

- S-5.1 Incorporate noise considerations into land use, transportation, and infrastructure planning decisions, and guide the location and design of noise-producing uses to minimize the effects of noise on adjacent noise-sensitive land uses, including residential uses and schools.
- S-5.2 Ensure that Downtown noise levels remain acceptable and compatible with a pedestrian-oriented environment and higher density residential land uses.
- S-5.3 Areas within Manteca exposed to existing or projected exterior noise levels from mobile noise sources exceeding the performance standards in Table S-1 shall be designated as noise-impacted areas.
- S-5.4 Require residential and other noise-sensitive development projects to satisfy the noise level criteria in Tables S-1 and S-2.
- S-5.5 Require new stationary noise sources proposed adjacent to noise sensitive uses to be mitigated so as to not exceed the noise level performance standards in Table S-2, or a substantial increase in noise levels established through a detailed ambient noise survey.
- S-5.6 Regulate construction-related noise to reduce impacts on adjacent uses to the criteria identified in Table S-2 or, if the criteria in Table S-2 cannot be met, to the maximum level feasible using best management practices and complying with the MMC Chapter 9.52.
- S-5.7 Where the development of residential or other noise-sensitive land use is proposed for a noise-impacted area or where the development of a stationary noise source is proposed in the vicinity of noise-sensitive uses, an acoustical analysis is required as part of the environmental review process so that noise mitigation may be considered in the project design. The acoustical analysis shall:
    - Be the responsibility of the applicant.
    - Be prepared by a qualified acoustical consultant experienced in the fields of environmental noise assessment and architectural acoustics.
    - Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions and the predominant noise sources.
    - Estimate existing and projected (20 years) noise levels in terms of the standards of Table S-1 or Table S-2, and compare those levels to the adopted policies of the Noise Element.
    - Recommend appropriate mitigation measures to achieve compliance with the adopted policies and standards of the Noise Element.
    - Estimate noise exposure after the prescribed mitigation measures have been implemented.

  - If necessary, describe a post-project assessment program to monitor the effectiveness of the proposed mitigation measures.
- S-5.8 Apply noise level criteria applied to land uses other than residential or other noise-sensitive uses consistent with noise performance levels of Table S-1 and Table S-2.
- S-5.9 Enforce the Sound Transmission Control Standards of the California Building Code concerning the construction of new multiple occupancy dwellings such as hotels, apartments, and condominiums.
- S-5.10 Ensure that new equipment and vehicles purchased by the City comply with noise level performance standards consistent with the best available noise reduction technology.
- S-5.11 Require the Manteca Police Department to actively enforce requirements of the California Vehicle Code relating to vehicle mufflers and modified exhaust systems.
- S-5.12 For new residential development backing on to a freeway or railroad right-of-way, the developer shall be required to provide appropriate mitigation measures to satisfy the performance standards in Table S-1.
- S-5.13 It is recognized that the City and surrounding areas are considered to be urban in nature and rely upon both the industrial and agricultural economy of the area. Therefore, it is recognized that noise sources of existing uses may exceed generally accepted standards.
- S-5.14 Carefully review and give potentially affected residents an opportunity to fully review any proposals for the establishment of helipads or heliports.
- S-5.15 Recognizing that existing noise-sensitive uses may be exposed to increase noise levels due to circulation improvement projects associated with development under the General Plan and that it may not be feasible to reduce increased traffic noise levels to the criteria identified in Table S-1, the following criteria may be used to determine the significance of noise impacts associated with circulation improvement projects:
  - Where existing traffic noise levels are less than 60 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +5 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant; and
  - Where existing traffic noise levels range between 60 and 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +3 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant; and
  - Where existing traffic noise levels are greater than 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a + 1.5 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant.
- S-5.16 Work with the Federal Railroad Administration and passenger and freight rail operators to reduce exposure to rail and train noise, including establishing train horn “quiet zones” consistent with the federal regulations.

Implementation

- S-5a Require an acoustical analysis that complies with the requirements of S-5.7 where:
  - Noise sensitive land uses are proposed in areas exposed to existing or projected noise levels exceeding the levels specified in Table S-1 or S-2.

- Proposed transportation projects are likely to produce noise levels exceeding the levels specified in Table S-1 or S-2 at existing or planned noise sensitive uses.

- S-5b Assist in enforcing compliance with noise emissions standards for all types of vehicles, established by the California Vehicle Code and by federal regulations, through coordination with the Manteca Police Department and the California Highway Patrol.
- S-5c Update the City's Noise Ordinance (Chapter 9.52) to reflect the noise standards established in this Noise Element and proactively enforce the City's Noise Ordinance, including requiring the following measures for construction:
  - Restrict construction activities to the hours of 7:00 a.m. to 7:00 p.m. on Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturdays. No construction shall be permitted outside of these hours or on Sundays or federal holidays, without a specific exemption issued by the City.
  - A Construction Noise Management Plan shall be submitted by the applicant for construction projects, when determined necessary by the City. The Construction Noise Management Plan shall include proper posting of construction schedules, appointment of a noise disturbance coordinator, and methods for assisting in noise reduction measures.
  - Noise reduction measures may include, but are not limited to, the following:
    a. Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds) wherever feasible.
    b. Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. This muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available. this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.
    c. Temporary power poles shall be used instead of generators where feasible.
    d. Stationary noise sources shall be located as far from adjacent properties as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City of provide equivalent noise reduction.
    e. The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.
    f. Delivery of materials shall observe the hours of operation described above.

g. Truck traffic should avoid residential areas to the extent possible.

- S-5d In making a determination of impact under the California Environmental Quality Act (CEQA), a substantial increase will occur if ambient noise levels are having a substantial increase. Generally, a 3 dB increase in noise levels is barely perceptible, and a 5 dB increase in noise levels is clearly perceptible. Therefore, increases in noise levels shall be considered to be substantial when the following occurs:
  - When existing noise levels are less than 60 dB, a 5 dB increase in noise will be considered substantial;
  - When existing noise levels are between 60 dB and 65 dB, a 3 dB increase in noise will be considered substantial;
  - When existing noise levels exceed 65 dB, a 1.5 dB increase in noise will be considered substantial.

  Additional or alternative criteria can be used for determining a substantial increase in noise levels. For instance, if the overall increase in noise levels occurs where no noise-sensitive uses are located, then the City may use their discretion in determining if there is any impact at all. In such a case, the following alternative factors may be used for determining a substantial increase in noise levels:

  - the resulting noise levels;
  - the duration and frequency of the noise;
  - the number of people affected;
  - conforming or non-conforming land uses;
  - the land use designation of the affected receptor sites;
  - public reactions or controversy as demonstrated at workshops or hearings, or by correspondence; and
  - prior CEQA determinations by other agencies specific to the project.
- S-5e Control noise at the source through use of insulation, berms, building design and orientation, buffer space, staggered operating hours, and similar techniques. Where such techniques would not meet acceptable levels, use noise barriers to attenuate noise associated with new noise sources to acceptable levels.
- S-5f Require that all noise-attenuating features are designed to be attractive and to minimize maintenance.
- S-5g Evaluate new transportation projects, such as truck routes, rail or public transit routes, and transit stations, using the standards contained in Table S-1. However, noise from these projects may be allowed to exceed the standards contained in Table S-1, if the City Council finds that there are special overriding circumstances.
- S-5h Work with the Federal Rail Authority and passenger and freight rail service providers to establish a Quiet Zone at at-grade crossings in the City. Where new development would be affected by the train and rail noise, require project applicants to fund a fair-share of: a) studies associated with the application for a Quiet Zone, and b) alternative safety measures associated with the Quiet Zone (including, but not limited to signage, gates, lights, etc.).

- S-5i Work in cooperation with Caltrans, the Union Pacific Railroad, San Joaquin Regional Rail Commission, and other agencies where appropriate to maintain noise level standards for both new and existing projects in compliance with Table S-1.
- S-5j The City shall require new residential projects located adjacent to major freeways, truck routes, hard rail lines, or light rail lines to follow the FTA screening distance criteria to ensure that groundborne vibrations to do not exceed acceptable levels.

TABLE NOISE-10: MAXIMUM ALLOWABLE NOISE EXPOSURE FROM MOBILE NOISE SOURCES

Land Use[1]	*Outdoor Activity Areas[2,3]*	*Interior Spaces*	
		Ldn/ CNEL, dBA	*Leq, dBA[4]*
Residential	60	45	-
Motels/Hotels	65	45	-
Mixed-Use	65	45	
Hospitals, Nursing Homes	60	45	-
Theaters, Auditoriums	-	-	35
Churches	60	-	40
Office Buildings	65	-	45
Schools, Libraries, Museums	70	-	45
Playgrounds, Neighborhood Parks	70	-	-
Industrial	75	-	45
Golf Courses, Water Recreation	70	-	-

[1]Where a proposed use is not specifically listed, the use shall comply with the standards for the most similar use as determined by the City.

[2]Outdoor activity areas for residential development are considered to be the back yard patios or decks of single family units and the common areas where people generally congregate for multi-family developments. Where common outdoor activity areas for multi-family developments comply with the outdoor noise level standard, the standard will not be applied at patios or decks of individual units provided noise-reducing measures are incorporated (e.g., orientation of patio/deck, screening of patio with masonry or other noise-attenuating material). Outdoor activity areas for non-residential developments are the common areas where people generally congregate, including pedestrian plazas, seating areas, and outside lunch facilities; not all residential developments include outdoor activity areas.

[3]In areas where it is not possible to reduce exterior noise levels to achieve the outdoor activity area standard w using a practical application of the best noise-reduction technology, an increase of up to 5 Ldn over the standard will be allowed provided that available exterior noise reduction measures have been implemented and interior noise levels are in compliance with this table

[4]Determined for a typical worst-case hour during periods of use.

TABLE NOISE-11: PERFORMANCE STANDARDS FOR STATIONARY NOISE SOURCES

Noise Level Descriptor	*Daytime*	*Nighttime*
	7 am to 10 pm	*10 pm to 7 am*
Hourly Leq, dBA	a. 55	b. 45

[1]Each of the noise levels specified above should be lowered by 5 dB for simple noise tones, noises consisting primarily of speech or music, or recurring impulsive noises. Such noises are generally considered to be particularly annoying and are a primary source of noise complaints.

[2]No standards have been included for interior noise levels. Standard construction practices should, with the exterior noise levels identified, result in acceptable interior noise levels.

[3]Stationary noise sources which are typically of concern include, but are not limited to, the following:

HVAC Systems
Pump Stations
Emergency Generators
Steam Valves
Generators
Air Compressors
Cooling Towers/Evaporative Condensers
Lift Stations
Boilers
Steam Turbines
Fans
Heavy Equipment

Conveyor Systems	*Transformers*
Pile Drivers	*Grinders*
Drill Rigs	*Gas or Diesel Motors*
Welders	*Cutting Equipment*
Outdoor Speakers	*Blowers*

[4]The types of uses which may typically produce the noise sources described above include but are not limited to: industrial facilities, pump stations, trucking operations, tire shops, auto maintenance shops, metal fabricating shops, shopping centers, drive-up windows, car washes, loading docks, public works projects, batch plants, bottling and canning plants, recycling centers, electric generating stations, race tracks, landfills, sand and gravel operations, and athletic fields.

City of Manteca Municipal Code Noise Ordinance

Section 9.52.030 of the City of Manteca Municipal Code prohibits excessive or annoying noise or vibration to residential and commercial properties in the City. The following general rules are outline in the ordinance:

9.52.030 Prohibited noises—General standard

No person shall make, or cause to suffer, or permit to be made upon any public property, public right-of-way or private property, any unnecessary and unreasonable noises, sounds or vibrations which are physically annoying to reasonable persons of ordinary sensitivity or which are so harsh or so prolonged or unnatural or unusual in their use, time or place as to cause or contribute to the unnecessary and unreasonable discomfort of any persons within the neighborhood from which said noises emanate or which interfere with the peace and comfort of residents or their guests, or the operators or customers in places of business in the vicinity, or which may detrimentally or adversely affect such residences or places of business. (Ord. 1374 § 1(part), 2007)

17.58.050 D. Exempt Activities

8. Construction activities when conducted as part of an approved Building Permit, except as prohibited in Subsection 17.58.050(E)(1) (Prohibited Activities) below.

17.58.050 E. Prohibited Activities

1. Construction Noise. Operating or causing the operation of tools or equipment on private property used in alteration, construction, demolition, drilling, or repair work daily between the hours of 7:00 p.m. and 7:00 a.m., so that the sound creates a noise disturbance across a residential property line, except for emergency work of public service utilities.

Vibration Standards

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

The City does not have specific policies pertaining to vibration levels. However, vibration levels associated with construction activities are addressed as potential noise impacts associated with project implementation.

Human and structural response to different vibration levels is influenced by several factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table Noise-12 indicates that the threshold for damage to structures ranges from 0.2 to 0.6 peak particle velocity in inches per second (in/sec p.p.v). A threshold of 0.20 in/sec p.p.v. is considered to be a reasonable threshold for short-term construction projects.

TABLE NOISE-5: EFFECTS OF VIBRATION ON PEOPLE AND BUILDINGS

PEAK PARTICLE VELOCITY		HUMAN REACTION	EFFECT ON BUILDINGS
MM/SEC.	IN./SEC.		
0.15-0.30	0.006-0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10-15	0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage.

SOURCE: CALTRANS. TRANSPORTATION RELATED EARTHBORN VIBRATIONS. TAV-02-01-R9601 FEBRUARY 20, 2002.

Impacts and Mitigation Measures

Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines, the Project will have a significant impact related to noise if it will result in:

Would the Project:

a. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
b. Generate excessive groundborne vibration or groundborne noise levels?
c. For a Project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?

Determination of a Significant Increase in Noise Levels

Existing (2003) General Plan Policies

The CEQA guidelines define a significant impact of a Project if it "increases substantially the ambient noise levels for adjoining areas". Implementation Measure N-I-3 of the City of Manteca General Plan Noise Element provides specific guidance for assessing increases in ambient noise, as follows:

> *In making a determination of impact under the California Environmental Quality Act (CEQA), a substantial increase will occur if ambient noise levels are increased by 10 dB or more. An increase from 5-10 dB may be substantial. Factors to be considered in determining the significance of increases from 5-10 dB include:*
>
> - *the resulting noise levels*
> - *the duration and frequency of the noise*
> - *the number of people affected*
> - *the land use designation of the affected receptor sites*
> - *public reactions/controversy as demonstrated at workshops/hearings, or by correspondence*
> - *prior CEQA determinations by other agencies specific to the Project*

Proposed General Plan Policies

Under the City's proposed General Plan Update, the following policy S-5d will apply when evaluating substantial noise increases:

In making a determination of impact under the California Environmental Quality Act (CEQA), a substantial increase will occur if ambient noise levels increase substantially. Generally, a 3 dB increase in noise levels is barely perceptible, and a 5 dB increase in noise levels is clearly perceptible. Therefore, increases in noise levels shall be considered to be substantial when the following occurs:

- When existing noise levels are less than 60 dB, a 5 dB increase in noise will be considered substantial;
- When existing noise levels are between 60 dB and 65 dB, a 3 dB increase in noise will be considered substantial;
- When existing noise levels exceed 65 dB, a 1.5 dB increase in noise will be considered substantial.

Additional or alternative criteria can be used for determining a substantial increase in noise levels. For instance, if the overall increase in noise levels occurs where no noise-sensitive uses are located, then the City may use their discretion in determining if there is any impact at all. In such a case, the following alternative factors may be used for determining a substantial increase in noise levels:

- the resulting noise levels;
- the duration and frequency of the noise;
- the number of people affected;
- conforming or non-conforming land uses;

- the land use designation of the affected receptor sites;
- public reactions or controversy as demonstrated at workshops or hearings, or by correspondence; and
- prior CEQA determinations by other agencies specific to the Project.

Responses to Checklist Questions

Response a): According to Tables Noise-4 and Noise-5, the maximum noise level increase due to project traffic is predicted to be 1.1 dBA L_{dn} This is less than the +1.5 dBA to +5 dBA test of significance applied under the new General Plan polices and less than the +5-10 dBA test of significance under the existing General Plan. Therefore, this would be a ***less than significant*** impact.

Operational Noise at Sensitive Receptors

As shown in Figure 3.10-2 in the Noise Study, the project is predicted to expose nearby residence to noise levels up to 40 dBA Leq, during both daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) hours. The predicted project noise levels would meet the City of Manteca daytime and nighttime noise standards for stationary non-transportation noise sources of 50 dBA, L_{eq} and 45 dBA, L_{eq}, respectively. Therefore, this would be a ***less than significant*** impact.

It should be noted that maximum noise levels generated by the residential HVAC units and on-site vehicle circulation are predicted to be 20 dBA, or less, than the average (L_{eq}) values. The City of Manteca maximum (L_{max}) nighttime noise level standard is 65 dBA Lmax, which is 20 dBA higher than the L_{eq} standard. Therefore, where average noise levels are in compliance with the L_{eq} standards, maximum noise levels will also meet the County's standards. Based upon the predicted noise levels of 40 dBA, L_{eq} at the nearest sensitive receptor, the predicted maximum noise levels would be 60 dBA, L_{max} and comply with the City maximum standards.

Construction Noise

During the construction of the project, including roads, water, sewer lines, and related infrastructure, noise from construction activities would add to the noise environment in the project vicinity. Existing receptors adjacent to the proposed construction activities are located east of the site, across South Airport Way.

As indicated in Table Noise-6, activities involved in construction would generate maximum noise levels ranging from 82 to 96 dB L_{max} at a distance of 50 feet. The nearest receptor to the east is located approximately 200 feet to over 900 feet from project construction. At this distance construction noise would attenuate to 70-84 dBA L_{max}. Existing noise levels measured along South Airport Way, at a similar setback distance, were found to be 74-85 dBA L_{max}. Therefore, construction noise is predicted to be within the range of existing noise levels.

Noise would also be generated during the construction phase by increased truck traffic on area roadways. A significant project-generated noise source would be truck traffic associated with transport of heavy materials and equipment to and from construction sites. This noise increase would be of short duration and would likely occur primarily during daytime hours.

Construction activities would be temporary in nature and are exempt from noise regulation during the hours of 7:00 AM to 7:00 PM, as outlined in the City's Municipal Code:

> **17.58.050 D. Exempt Activities**
>
> 8. Construction activities when conducted as part of an approved Building Permit, except as prohibited in Subsection 17.58.050(E)(1) (Prohibited Activities) below.
>
> **17.58.050 E. Prohibited Activities**
>
> 1. Construction Noise. Operating or causing the operation of tools or equipment on private property used in alteration, construction, demolition, drilling, or repair work daily between the hours of 7:00 p.m. and 7:00 a.m., so that the sound creates a noise disturbance across a residential property line, except for emergency work of public service utilities.

Implementation of mitigation measures 1(a) and 1(b) would help to reduce construction-generated noise levels. With mitigation, this impact would be considered ***less-than-significant***.

Mitigation Measures

Mitigation Measure NOI-1(a): *Construction activities shall adhere to the requirements of the City of Manteca Municipal Code with respect to hours of operation. This requirement shall be noted in the improvements plans prior to approval by the City's Public Works Department.*

Mitigation Measure NOI-2(b): *All equipment shall be fitted with factory equipped mufflers, and in good working order. This requirement shall be noted in the improvements plans prior to approval by the City's Public Works Department.*

Response b): Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception. Building damage can take the form of cosmetic or structural.

The Table Noise-7 data indicates that construction vibration levels anticipated for the project are less than the 0.2 in/sec threshold at distances of 26 feet. Sensitive receptors which could be impacted by construction related vibrations, especially vibratory compactors/rollers, are located further than 26 feet from typical construction activities. At these distances construction vibrations are not predicted to exceed acceptable levels. Additionally, construction activities would be temporary in nature and would likely occur during normal daytime working hours. This is a ***less-than-significant*** impact and no mitigation is required.

Response c): There are no airports in the project vicinity. Therefore, this impact is not applicable to the proposed project. Implementation of the proposed Project would have no impact relative to this topic.

XIV. POPULATION AND HOUSING

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

Responses to Checklist Questions

Response a): The proposed Project would not include upsizing of offsite infrastructure or roadways. The installation of new infrastructure would be limited to the internal Project site. The sizing of the infrastructure would be specific to the size of the building and the number and type of vehicles that would travel to and from the Project site. Implementation of the proposed Project would not induce substantial population growth in an area, either directly or indirectly. Although the proposed Project would create new jobs, which could create some population growth, it is anticipated that such new jobs would be for the existing labor force within Manteca and the surrounding communities. Therefore, implementation of the proposed Project would have ***no impact*** relative to this topic.

Response b): The Project site currently contains housing in the northeastern quadrant of the Project site. However, the demolition of the housing in the northeastern quadrant of the Project site would not displace substantial numbers of existing housing or people. Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

XV. PUBLIC SERVICES

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?		X		
Police protection?			X	
Schools?			X	
Parks?			X	
Other public facilities?				X

Responses to Checklist Questions

Response a):

Fire Protection

The Project site is currently under the jurisdiction of the Manteca Fire Dept. The Manteca Fire Dept. serves approximately 71,164 residents throughout approximately 17.2 square miles within the city limits. The Manteca Fire Dept. operates out of four (4) facilities that are strategically located in the City of Manteca. The nearest fire station to the Project site is Manteca Fire Station #4 located at 1465 Lathrop Road, approximately 1.7 miles travel distance to southeast.

The Manteca Fire Dept. maintains a goal for the initial company of three (3) firefighters to arrive on scene for fire and emergency medical service (EMS) incidents within five (5) minutes 90% of the time (Response Effectiveness). In 2016, the Dept. averaged a response time for Code 3 emergencies such as fires, medical calls or auto accidents at 4:20 minutes City-wide. The Dept. is currently meeting the Response Effectiveness goal. The City's currently ISO PPC is rated Class 2 on a scale of 1 to 10, with Class 1 being the highest possible protection rating and Class 10 being the lowest, which is better than most of the jurisdictions in San Joaquin and Stanislaus County.

The City of Manteca receives funds for the provision of public services through development fees, property taxes, and connection and usage fees. As land is developed within the City and annexed into the City of Manteca, these fees apply. The City of Manteca reviews these fee structures on an annual basis to ensure that they provide adequate financing to cover the provision of city services. The City's Community Development, Public Works, and Finance Departments are responsible for continual oversight to ensure that the fee structures are adequate. The City reviews the referenced fees and user charges on an annual basis to determine the correct level of adjustment required to reverse any deficits and assure funding for needed infrastructure going forward. The City includes discussion of these fees and charges as part of the annual budget hearings.

The City of Manteca General Plan 2023 includes policies and implementation measures that would allow for the Department to continue providing adequate facilities and staffing levels. Below is a list of relevant policies:

- The City shall endeavor to maintain an overall fire insurance (ISO) rating of 4 or better (Policy PF-P-42).
- The City shall endeavor through adequate staffing and station locations to maintain the minimum feasible response time for fire and emergency calls (PF-P-43).
- The City shall provide fire services to serve the existing and projected population (PF-P-44).
- The City will establish the criteria for determining the circumstances under which fire service will be enhanced (PF-P-45).
- The Fire Department shall continuously monitor response times and report annually on the results of the monitoring (PF-I-24).
- The City shall encourage a pattern of development that promotes the efficient and timely development of public services and facilities (LU-P-3).

Impact fees from new development are collected based upon projected impacts from each development. The adequacy of impact fees is reviewed on an annual basis to ensure that the fee is commensurate with the service. Payment of applicable impact fees by new development, and ongoing revenues that would come from property taxes, sales taxes, and other revenues generated by the proposed Project, would fund capital and labor costs associated with fire protection services. Payment of such fees is adequate to ensure that the proposed Project would not result in any CEQA impacts related to this topic, including the potential for the proposed Project to cause substantial adverse physical impact associated with the provision of new or physically alternated governmental services, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts. Therefore, with implementation of Mitigation Measure PSU-1, the impact of the proposed Project on the need for additional fire services facilities is ***less than significant***.

Mitigation Adopted by the City

Mitigation Measure PSU-1*: Prior to issuance of building permits for any project uses, the Project applicant shall provide the City of Manteca will all applicable fire protection development fees in accordance with the latest adopted fee schedule.*

Police Protection

The Project site is currently under the jurisdiction of the Manteca Police Department. In 2019, the MPD had 74 sworn officers. The Manteca Police Department operates out of its headquarters located at 1001 W. Center Street. The Project site is located approximately 2.75 miles northwest of the headquarters.

The Manteca Police Department is organized into two divisions: Operations and Services. Additionally, the Police Department operates a Public Affairs Unit. For budgeting purposes, the Police Department is organized into the following programs: administration, patrol, investigations, support services, dispatch, code enforcement, jail services, and animal services.

Response times are an important benchmark of police service. Response times can vary greatly depending on the size of the city and department, geographical location, and levels of crime. Smaller cities usually have faster response times, due simply to the geography.

The City of Manteca receives funds for the provision of public services through development fees, property taxes, and connection and usage fees. As land is developed within the City and annexed

into the City of Manteca, these fees apply. The City of Manteca reviews these fee structures on an annual basis to ensure that they provide adequate financing to cover the provision of city services. The City's Community Development, Public Works, and Finance Departments are responsible for continual oversight to ensure that the fee structures are adequate. The City reviews the referenced fees and user charges on an annual basis to determine the correct level of adjustment required to reverse any deficits and assure funding for needed infrastructure going forward. The City includes discussion of these fees and charges as part of the annual budget hearings.

The Police Department had previously requested that the projects developed in the Master Plan area implement Crime Prevention Through Environmental Design practices, as well as other techniques intended to deter and prevent criminal activity. This request will be incorporated into the Conditions of Approval for the Master Plan uses. Furthermore, as part of the City of Manteca's standard design review process, the Police Department will have the opportunity to review and comment on the site plans of each the Master Plan uses (including the proposed Project), including the application of criminal activity deterrence and prevention practices and techniques.

The City's General Plan includes policies and implementation measures that would allow for the Manteca Police Department to continue providing adequate staffing levels. Below is a list of relevant policies:

- The City shall endeavor through adequate staffing and patrol arrangements to maintain the minimum feasible police response times for police calls. As of 2019, the City had 74 sworn officers. With a population of 84,800 (as of 2020), that equates to a staffing level of .87 officers per 1000 residents.

- The City shall provide police services to serve the existing and projected population. The Police Department will continuously monitor response times and report annually on the results of the monitoring.

Impact fees from new development are collected based upon projected impacts from each applicable development. The adequacy of impact fees is reviewed on an annual basis to ensure that the fee is commensurate with the service. Payment of the applicable impact fees by the Project applicant, and ongoing revenues that would come from property taxes, sales taxes, and other revenues generated by the proposed Project, would fund capital and labor costs associated with police services. Payment of such fees is adequate to ensure that the proposed Project would not result in any CEQA impacts related to this topic, including the potential for the proposed Project to cause substantial adverse physical impact associated with the provision of new or physically alternated governmental services, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts.

Based on the current adequacy of existing response times and the ability of the Manteca Police Department to serve the City, it is anticipated that the existing police department facilities are sufficient to serve the proposed Project. Consequently, any impacts would be ***less than significant***.

Schools

Most schools within the City of Manteca are part of the Manteca Unified School District (MUSD). The MUSD provides school services for grades kindergarten through 12 (K-12) within the communities of Manteca, Manteca, Stockton, and French Camp. The District is approximately 113

square miles and serves more than 23,000 students. Within the City of Manteca, there are three elementary schools (Manteca Elementary School, Joseph Widmer School, and Mossdale Elementary School) and one high school (Sierra High School). River Islands has two charter elementary schools, located within the Banta Unified School District (River Islands Technology Academy and the S.T.E.A.M. Academy).

MUSD provides school services for grades K through 12 within the communities of Manteca, Lathrop, Stockton, and French Camp. MUSD operates 14 elementary and middle schools (grades K-8), four high schools (grades 9-12), one community day school (grades 7-12), and one vocational academy (grades 11-12). The schools in the City had a total enrollment of approximately 14,279 students, of which 9,416 were enrolled in elementary and middle school (grades K – 8) and 4,863 were enrolled in high school (grades 9 – 12).

The proposed Project does not include any residential units, and therefore would not directly increase the student population in the area.

The MUSD collects impact fees from new developments under the provisions of The Leroy F. Greene School Facilities Act of 1998, enacted by Senate Bill 50 ("SB 50"). SB 50 restricts the ability of local agencies to deny or condition land use approvals on the basis that school facilities are inadequate and precludes local agencies from requiring anything other than payment of the prevailing developer fee adopted by the local school district. SB 50 sets forth the "exclusive methods of considering and mitigating impacts on school facilities" resulting from any planning and/or development project, regardless of whether its character is legislative, adjudicative, or both. Govt. Code § 65996(a) (emphasis added).

Section 65995(h) provides that "[t]he payment or satisfaction of a fee, charge, or other requirement levied or imposed pursuant to Section 17620 of the Education Code in the amount specified in Section 65995 … is hereby deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving but not limited to, the planning, use, or development of real property … on the provision of adequate school facilities."

The reference in Section 65995(h) to fees "imposed pursuant to Section 17620 of the Education Code in the amount specified in Section 65995" is to per-square-foot school fees that can be imposed by school districts on new residential and commercial and industrial construction. Pursuant to this authority, the District has adopted a Level 1 fee in the amount of $3.79 per square foot of assessable space of new residential construction. Payment of this Level 1 fee by the applicant constitutes full and complete mitigation of all impacts of the proposed Project on the District's school facilities as a matter of law. (Gov't Code § 65995(h).)

Under SB 50, the City of Manteca is legally precluded from concluding, under CEQA or otherwise, that payment of the prevailing Level 1 fee will not completely mitigate the impacts of the proposed Project. Government Code § 65995(a) sets forth the "exclusive methods of considering and mitigating impacts on school facilities" when evaluating a development project. Because the methods of both "considering and mitigating" impacts on school facilities set forth in Government Code section 65996(a) are exclusive, SB 50 obviates the need for CEQA documents even to contain a description and analysis of a development project's impacts on school facilities. See *Chawanakee Unified Sch. Dist. v. Cty. of Madera*, 196 Cal. App. 4th 1016, 1027 (2011). Further, these statutes prohibit local agencies from concluding that payment of the authorized fees do not constitute full and complete mitigation of a project's school facilities impacts. Local agencies have no power to supersede the legislature's express and unambiguous directives on this

subject. Nor does the City possess the authority to deny or condition the proposed Project unless the applicant agrees to pay fees or provide other mitigation beyond the duly adopted Level 1 fee. Under Government Code § 65995(a), a "local agency may not deny or refuse to approve a legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property . . . on the basis of a person's refusal to provide school facilities mitigation that exceeds the amounts authorized pursuant to [SB 50.]" In short, payment of the Level 1 fee is "deemed to provide full and complete school facilities mitigation and, notwithstanding [Government Code] Section 65858, or [CEQA], or any other provision of state or local law, a state or local agency may not deny or refuse to approve [the] development of real property ... on the basis that school facilities are inadequate."

Payment of the applicable impact fees from new development, and ongoing revenues that would come from taxes, would fund capital and labor costs associated with school services. The adequacy of fees is reviewed on an annual basis to ensure that the fee is commensurate with the service. Payment of the applicable impact fees, and ongoing revenues that would come from property taxes and other revenues generated by the proposed Project, would fund improvements associated with school services.

The provisions of State law are considered full and complete mitigation for the purposes of analysis under CEQA for school construction needed to serve new development. In fact, State law expressly precludes the City from reaching a conclusion under CEQA that payment of the Leroy F. Greene School Facilities Act school impact fees would not completely mitigate new development impacts on school facilities. Consequently, the City of Manteca is without the legal authority under CEQA to impose any fee, condition, or other exaction on the proposed Project for the funding of new school construction other than the fees allowed by the Leroy F. Greene School Facilities Act. Additionally, local agencies are prohibited from using the inadequacy of school facilities as a basis for denying or conditioning approvals. Although MUSD may collect higher fees than those imposed by the Leroy F. Greene School Facilities Act, no such fees are required to mitigate the impact under CEQA. Because the proposed Project would pay fees as required by The Leroy F. Greene School Facilities Act, this impact would be ***less than significant***.

Parks

CEQA requires that the proposed Project is analyzed to determine whether any substantial adverse impacts would be associated with any new or physically altered governmental facilities that may be required to serve the proposed Project (in this case, for park and recreation facilities). The proposed Project directly increases the number of persons in the area as a result of an increase in employment potential. The proposed Project does not include any residential units.

The proposed Project does not include the construction of residential uses, does not directly increase the need for additional parks. Implementation of the proposed Project would have a **no impact** relative to this topic.

Other Public Facilities

The proposed Project would not result in a need for other public facilities that are not addressed above, or in Section XVIII, Utilities and Service Systems. Implementation of the proposed Project would have ***no impact*** relative to this issue.

XVI. RECREATION

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

Responses to Checklist Questions

Responses a): The proposed Project does not include the construction of residential uses, and therefore does not generate additional direct demand on park services. Thus, the potential impact would be reduced to a ***less than significant*** level.

Responses b): The proposed Project does not include the construction of recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. Implementation of the proposed Project would have ***no impact*** relative to this topic.

XVII. TRANSPORTATION

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

Introduction

This report documents the results of the Transportation Impact Analysis (TIA) conducted for the proposed Airport Business Centre North Project located at 3157 N. Airport Way. This TIA was prepared under contract to the City of Manteca Community Development Department.

The proposed project would construct an industrial warehousing / distribution building on the south-east corner of the Tactical Way / Airport Way intersection in the Northwest Airport Way Master Plan Area. The proposed project would be located approximately 0.85-mile (4,500 feet) south of the Roth Road / Airport Way signalized intersection, and approximately 1.20 miles (6,300 feet) north of the Lathrop Road / Airport Way signalized intersection.

The proposed Airport Business Centre North Project would encompass 21.3 acres and would provide the following three access driveways:

- One driveway on Airport Way that will only be used by employees;
- A second driveway on Tactical Way for employees; and
- A third driveway on Tactical Way (with a sliding gate) for trucks

The Airport Business Centre North Project Site would provide a total of 242 automobile parking stalls located on the south, west, and north sides of the distribution building. On the west side of the Airport Business Centre North building, a total of 93 truck trailer parking stalls and 46 truck loading docks will be provided. The proposed project site would connect with the existing Tactical Drive, which would connect with the existing Intermodal Way, providing the primary access route for trucks to access the project site.

It should be noted that only employee traffic will be allowed to use Airport Way to access the parking lots located along Airport Way and Tactical Way. The project site is being constructed such that all truck traffic (delivery, California, and Surface Transportation Assistance Act – STAA) will be required to use Intermodal Way to and from the Interstate 5 / Roth Road interchange; thereby reducing the amount of project-generated traffic that would use Airport Way.

In addition to the proposed Airport Business Centre North truck traffic restriction on Airport Way, a separate Roth Road Corridor Study is currently being prepared by the San Joaquin Council of Government (SJCOG) in coordination with the City of Lathrop, City of Manteca, San Joaquin

County and Caltrans District 10 (Stockton, CA). The purpose of the Roth Road Corridor Study is to develop a comprehensive plan for improvements from Interstate 5 (I-5) to the west and Airport Way to the east. This plan includes widening Roth Road west of Intermodal Way, realigning Harland Road, and making improvements at the I-5 / Roth Road interchange to serve projected traffic (cars and trucks) from existing and future land uses along the entire Roth Road Corridor.

Project Trip Generation

The following tables (Tables Trans-1 through Trans-4)Table presents the trip generation rates (Table Trans-1), projected trips generated by the proposed Airport Business Centre North Project for Weekday Daily, AM Peak Hour, and PM Peak Hour Conditions for All Vehicles (Trans-Table 2), Employee Vehicles – Passenger Cars, SUV and Light Duty Trucks (Trans-Table 3), and Delivery CA Legal / STAA Trucks (Trans-Table 4). Trips generated are based on blended trip rates from the Trip Generation Manual 11th Edition (Institute of Transportation Engineers, 2021) and the City of Manteca Travel Demand Forecasting (TDF) Model being developed for the General Plan 2020/2040 Update.

Table Trans-1: Project Trip Generation Rates

Land Use (ITE Code)	Gross Floor Area (Sq. Ft.)	Vehicle Trip Rate[1]						
		Daily	AM			PM		
		Total	Total	In	Out	Total	In	Out
Warehousing Industrial (Blended Trip Rate)	360,000 Square Feet	3.77	0.39	0.27	0.12	0.39	0.13	0.25

[1] Trip rates are based on the Trip Generation Manual 11th Edition (Institute of Transportation Engineers 2021).

Source: Fehr & Peers, 2022

Table Trans-2: Project Trip Generation (All Vehicles)

Project	Gross Floor Area (Sq. Ft.)	Daily (All Vehicles)	AM Peak Hour (All Vehicles)			PM Peak Hour (All Vehicles)		
		Total	Total	In	Out	Total	In	Out
Airport Business Center North Project	360,000 Square Feet	1,358	139	97	42	139	48	91

Source: Fehr & Peers, 2022

Table Trans-3: Project Trip Generation (Employee Vehicles – Passenger Cars, SUV and Light Duty Trucks)

Project	Gross Floor Area (Sq. Ft.)	Daily (Employee Vehicles)	AM Peak Hour (Employee Vehicles)			PM Peak Hour (Employee Vehicles)		
		Total	Total	In	Out	Total	In	Out
Airport Business Center North Project	360,000 Square Feet	1,088	116	93	23	124	36	88

Source: Fehr & Peers, 2022

Table Trans-4: Project Trip Generation – Trucks (Delivery CA Legal and STAA)

Project	Gross Floor Area (Sq. Ft.)	Daily (CA Legal and STAA Trucks)	AM Peak Hour (CA Legal and STAA Trucks)			PM Peak Hour (CA Legal and STAA Trucks)		
		Total	Total	In	Out	Total	In	Out
Airport Business Center North Project	360,000 Square Feet	270	23	4	19	15	12	3

Source: Fehr & Peers, 2022

Responses to Checklist Questions

Responses a): An analysis of level of service is provided below to ensure that the proposed project's traffic operations are consistent with the Circulation Element of the General Plan.

Roadway segment level of service analysis – existing conditions

In addition to Vehicle Miles Traveled, the secondary and non-CEQA measure analyzed for the transportation analysis is segment level of service for Existing (Year 2022) and Existing With Airport Business Centre North Project Weekday Average Daily Traffic (ADT) Conditions. It should be noted that the Existing volumes were developed using traffic counts completed in Fall 2021 and adjusted up to represent Year 2022 ADT volumes.

Table Trans-5 presents the existing weekday ADT volumes for twenty-four (24) study roadway segments in the project study area. The Project Trip Generation analysis showed that on a daily basis, the proposed Airport Business Centre North Project would add a total of 1,358 vehicles to the surrounding transportation network, consisting of 1,088 employee vehicles, and 270 California Legal or STAA Trucks. On a typical weekday, the proposed Airport Business Centre North Project would add 270 California Legal or STAA Trucks on Intermodal Way between Roth Road and Interconnect Drive.

The results of the roadway segment level of service analysis showed that the proposed Airport Business Centre North Project would not result in any roadways operating below acceptable level of service thresholds on the surrounding transportation network. All twenty-four roadway segments would continue to operate at acceptable Level of Service C or D under Existing With Project Conditions.

Table Trans-5: Existing Level of Service Analysis – No Project versus With Airport Business Centre North Project Average Daily Traffic Volumes

Roadway Segment - Location	*Existing (No Project)*		*Existing With Project*		*With Project - No Project*	
	ADT Volume	*LOS*	*ADT Volume*	*LOS*	*ADT Volume*	*Percentage Change*
1. Roth Road – Between Intermodal Way and Airport Way	9,700	D	9,863	D	163	1.7 %
2. Roth Road – Between Intermodal Way and McKinley Avenue	9,600	D	9,925	D	325	3.4 %
3. Roth Road – Between McKinley Avenue and Harlan Road	9,800	D	10,125	D	325	3.3 %
4. Roth Road – Between Harlan Road and NB I-5 Off/On-Ramps	14,800	D	15,125	D	325	2.2 %
5. Roth Road – Between NB I-5 Off/On-Ramps and SB I-5 Off/On-Ramps	8,500	C	8,608	C	108	1.3 %
6. Airport Way – Between French Camp Road and Roth Road	7,400	C	7,563	C	163	2.2 %
7. Airport Way – Between Roth Road and Lovelace Road	6,700	C	6,918	C	218	3.3 %
8. Airport Way – Between Lovelace Road and Daisywood Drive	7,000	C	7,218	C	218	3.1 %
9. Airport Way – Between Daisywood Drive and Pinnacle Drive	7,500	D	8,370	D	870	11.6 %

10. Airport Way – Between Pinnacle Drive and Lathrop Road	8,800	D	9,670	D	870	9.9 %
11. Airport Way – Between Lathrop Road and Northgate Drive	9,800	D	10,181	D	381	3.9 %
12. Airport Way – Between Northgate Drive and Louise Avenue	10,500	D	10,881	D	381	3.6 %
13. Airport Way – Between Louise Avenue and Crom Avenue	14,800	D	15,181	D	381	2.6 %
14. Airport Way – Between Crom Avenue and Yosemite Avenue	15,600	D	15,981	D	381	2.4 %
15. Lathrop Road – Between Union Road and Airport Way	16,700	D	16,972	D	272	1.6 %
16. Lathrop Road – Between Airport Way and McKinley Avenue	21,400	D	21,618	D	218	1.0 %
17. Lathrop Road – Between McKinley Avenue and 5th Street	21,000	D	21,196	D	196	0.9 %
18. Lathrop Road – Between 5th Street and Harlan Road	20,600	D	20,796	D	196	1.0 %
19. Lathrop Road – Between Harlan Road and NB I-5 Off/On-Ramps	24,500	D	24,696	D	196	0.8 %
20. Lathrop Road – Between NB I-5 Off /On-Ramps and SB I-5 Off/On-Ramps	16,200	C	16,298	C	98	0.6 %
21. Spartan Way – Between SB I-5 Off/On -Ramps and Golden Valley Parkway	9,200	C	9,222	C	22	0.2 %
22. Intermodal Way – Between Roth Road and 5.11 Tactical Building	1,650	C	1,920	C	270	16.4 %
23. Intermodal Way – Between 5.11 Tactical Building and Tactical Way	950	C	1,220	C	270	28.4 %
24. Tactical Way – Between Airport Way and Intermodal Way	135	C	189	C	54	40.0 %

Note: LOS = Level of Service based on Segment Level of Service Thresholds from Manteca General Plan Update and Lathrop General Plan Update

Source: Fehr & Peers, 2022

Roadway segment level of service analysis – cumulative conditions

In addition to Vehicle Miles Traveled, the secondary measure analyzed for the transportation analysis was segment level of service for Cumulative No Project and Cumulative With Airport Business Centre North Project Weekday Average Daily Traffic (ADT) Conditions. Table Trans-6 presents the projected ADT volumes for twenty-four (24) study roadway segments in the project study area using the City of Manteca / City of Lathrop Travel Demand Forecasting (TDF) Model.

The Project Trip Generation analysis showed that on a daily basis, the proposed Airport Business Centre North Project would add a total of 1,358 vehicles to the surrounding transportation network, consisting of 1,088 employee vehicles, and 270 California Legal or STAA Trucks. On a typical weekday, the proposed Airport Business Centre North Project would add 270 California Legal or STAA Trucks on Intermodal Way between Roth Road and Interconnect Drive.

The results of the roadway segment level of service analysis showed that the proposed Airport Business Centre North Project would not result in any roadways operating below acceptable level of service thresholds on the surrounding transportation network. All twenty-four roadway segments would continue to operate at acceptable Level of Service C or D under Existing With Project Conditions.

Table Trans-6: Cumulative Level of Service Analysis – No Project versus With Airport Business Centre North Project Average Daily Traffic Volumes

Roadway Segment - Location	*No Project*		*With Project*		*With Project - No Project*	
	ADT Volume	*LOS*	*ADT Volume*	*LOS*	*ADT Volume*	*Percentage Change*
1. Roth Road – Between Intermodal Way and Airport Way	17,790	D	17,953	D	163	0.9 %
2. Roth Road – Between Intermodal Way and McKinley Avenue	17,420	D	17,745	D	325	1.9 %
3. Roth Road – Between McKinley Avenue and Harlan Road	19,380	D	19,705	D	325	1.7 %
4. Roth Road – Between Harlan Road and NB I-5 Off/On-Ramps	24,600	D	24,925	D	325	1.3 %
5. Roth Road – Between NB I-5 Off/On-Ramps and SB I-5 Off/On-Ramps	32,610	D	32,718	D	108	0.3 %
6. Airport Way – Between French Camp Road and Roth Road	17,640	C	17,803	C	163	0.9 %
7. Airport Way – Between Roth Road and Lovelace Road	19,800	C	20,018	C	218	1.1 %
8. Airport Way – Between Lovelace Road and Daisywood Drive	16,010	C	16,228	C	218	1.4 %
9. Airport Way – Between Daisywood Drive and Pinnacle Drive	15,980	C	16,850	C	870	5.4 %
10. Airport Way – Between Pinnacle Drive and Lathrop Road	24,980	D	25,850	D	870	3.5 %
11. Airport Way – Between Lathrop Road and Northgate Drive	22,190	D	22,571	D	381	1.7 %
12. Airport Way – Between Northgate Drive and Louise Avenue	20,840	D	21,221	D	381	1.8 %
13. Airport Way – Between Louise Avenue and Crom Avenue	23,300	D	23,681	D	381	1.6 %
14. Airport Way – Between Crom Avenue and Yosemite Avenue	23,180	D	23,561	D	381	1.6 %
15. Lathrop Road – Between Union Road and Airport Way	21,650	D	21,922	D	272	1.3 %
16. Lathrop Road – Between Airport Way and McKinley Avenue	24,460	D	24,678	D	218	0.9 %
17. Lathrop Road – Between McKinley Avenue and 5th Street	26,030	D	26,226	D	196	0.8 %

18. Lathrop Road – Between 5th Street and Harlan Road	25,410	D	25,606	D	196	0.8 %
19. Lathrop Road – Between Harlan Road and NB I-5 Off/On-Ramps	35,350	D	35,546	D	196	0.6 %
20. Lathrop Road – Between NB I-5 Off /On-Ramps and SB I-5 Off/On-Ramps	39,330	D	39,428	D	98	0.2 %
21. Spartan Way – Between SB I-5 Off/On -Ramps and Golden Valley Parkway	47,830	D	47,852	D	22	0.1 %
22. Intermodal Way – Between Roth Road and 5.11 Tactical Building	2,380	C	2,650	C	270	11.3 %
23. Intermodal Way – Between 5.11 Tactical Building and Tactical Way	1,780	C	2,050	C	270	15.2 %
24. Tactical Way – Between Airport Way and Intermodal Way	225	C	279	C	54	24.0 %

Note: LOS = Level of Service based on Segment Level of Service Thresholds from Manteca General Plan Update and Lathrop General Plan Update

Source: Fehr & Peers, 2022

Intersection level of service analysis – existing conditions

The tertiary and non-CEQA measure analyzed for the transportation analysis is intersection level of service for Existing (Year 2022) and Existing With Airport Business Centre North Project Weekday AM and PM Peak Hour Conditions. It should be noted that the Existing volumes were developed using traffic counts completed in Fall 2021 and adjusted up to represent Year 2022 ADT volumes.

Table Trans-7 presents the existing AM and PM peak hour intersection level of service for the fourteen (14) study intersections in the project study area. The Project Trip Generation analysis showed that during the AM peak hour, the proposed Airport Business Centre North Project would add a total of 96 vehicles to the surrounding transportation network, consisting of 53 employee vehicles, and 38 California Legal or STAA Trucks. During the PM peak hour, the proposed Airport Business Centre North Project would add a total of 78 vehicles to the surrounding transportation network, consisting of 57 employee vehicles, and 8 California Legal or STAA Trucks.

Table 7: Existing Level of Service Analysis – No Project versus With Airport Business Centre North Project Weekday AM and PM Peak Hours

Intersection (Control)	*Existing (No Project)*		*Existing With Project*	
	Delay AM(PM)	*LOS AM(PM)*	*Delay AM(PM)*	*LOS AM(PM)*
1. Roth Road / Airport Way (Signa)	12.0 (13.1)	B (B)	15.6 (15.9)	B (B)
2. Roth Road / Intermodal Way (Signal)	8.5 (9.2)	A (A)	9.5 (9.9)	A (A)
3. Roth Road / I-5 SB Ramps (SSSC)	18.5 (22.1)	C (C)	22.5 (24.7)	C (C)
4. Roth Road / I-5 NB Ramps (SSSC)	13.1 (15.7)	B (C)	14.9 (17.1)	B (C)
5. Airport Way / Lovelace Road (Signal)	9.7 (9.0)	A (A)	10.4 (9.9)	B (A)

6. Airport Way / Daisywood Drive (Signal)	6.7 (5.8)	A (A)	7.5 (6.7)	A (A)
7. Airport Way / Lathrop Road (Signal)	26.6 (27.0)	C (C)	29.4 (30.2)	C (C)
8. Airport Way / Louise Avenue (Signal)	28.5 (29.6)	C (C)	30.2 (31.4)	C (C)
9. Lathrop Road / I-5 SB Ramps (Signal)	14.4 (17.8)	B (B)	16.8 (19.1)	B (B)
10. Lathrop Road / I-5 NB Ramps (Signal)	13.1 (17.4)	B (B)	14.8 (19.6)	B (B)
11. Lathrop Road / Union Road (Signal)	31.7 (30.8)	C (C)	32.7 (32.8)	C (C)
12. Lathrop Road / SR 99 SB Ramps / Main Street (Signal)	21.1 (24.0)	C (C)	22.5 (25.5)	C (C)
13. Lathrop Road / SR 99 NB Ramps (Signal)	10.1 (9.9)	B (A)	11.0 (10.7)	B (B)
14. Airport Way / Tactical Way (SSSC)	5.5 (7.2)	A (B)	6.7 (8.7)	A (B)

Notes:

SSSC = Side-Street Stop Control; LOS = Level of Service

[1] For signalized intersections and all-way stop controlled intersections, average intersection delay is reported in seconds per vehicle for all approaches. For side street stop-controlled intersections, intersection delay is reported in seconds per vehicle for the overall intersection and (worst-case) movement. Intersection delay is calculated based on the procedures and methodology contained in the Highway Capacity Manual 6th Edition (Transportation Research Board, 2016).

Source: Fehr & Peers, 2022

The results of the intersection level of service analysis showed that the proposed Airport Business Centre North Project would not result in any intersections operating below acceptable level of service thresholds on the surrounding transportation network. All fourteen (14) study intersections would continue to operate at acceptable Level of Service D or better under Existing With Project Conditions.

Intersection level of service analysis – cumulative conditions

The tertiary and non-CEQA measure analyzed for the transportation analysis is intersection level of service for Cumulative No Project and Cumulative With Airport Business Centre North Project Weekday AM and PM Peak Hour Conditions. It should be noted that the Existing volumes were developed using traffic counts completed in Fall 2021 and adjusted up to represent Year 2022 ADT volumes.

Table Trans-8 presents the projected AM and PM peak hour intersection level of service for the fourteen (14) study intersections in the project study area using the City of Manteca / City of Lathrop Travel Demand Forecasting (TDF) Model.

Under Cumulative No Project Conditions, traffic associated with land use growth in the City of Manteca and City of Lathrop contributes to the increase in traffic volumes along Lathrop Road. As displayed, the following intersection would operate unacceptably without the proposed Project:

- Union Road/Lathrop Road would operate unacceptably at LOS F during both AM peak hour and PM peak hours

The results of the intersection level of service analysis showed that the proposed Airport Business Centre North Project would not result in any additional intersections operating below acceptable level of service thresholds on the surrounding transportation network. Thirteen (13) of the fourteen (14) study intersections would continue to operate at acceptable Level of Service D or better under Cumulative With Project Conditions. The Union Road/Lathrop Road intersection would continue to operate unacceptably at LOS F during both AM peak hour and PM peak hours under the Cumulative With Project Conditions.

Table Trans-8: Cumulative Level of Service Analysis – No Project versus With Airport Business Centre North Project Weekday AM and PM Peak Hours

Intersection (Control)	*Cumulative (No Project)*		*Cumulative With Project*	
	Delay AM(PM)	*LOS AM(PM)*	*Delay AM(PM)*	*LOS AM(PM)*
1. Roth Road / Airport Way (Signal) [2]	22.5 (23.1)	C (C)	23.6 (24.4)	C (C)
2. Roth Road / Intermodal Way (Signal)[2]	10.2 (10.8)	B (B)	11.4 (11.7)	B (B)
3. Roth Road / I-5 SB Ramps (Signal) [2]	13.9 (18.0)	B (B)	14.6 (19.7)	B (B)
4. Roth Road / I-5 NB Ramps (Signal) [2]	13.2 (14.4)	B (B)	14.0 (15.3)	B (B)
5. Airport Way / Lovelace Road (Signal) [2]	9.1 (9.2)	A (A)	9.7 (9.7)	A (A)
6. Airport Way / Daisywood Drive (Signal) [2]	6.9 (7.2)	A (A)	7.7 (7.9)	A (A)
7. Airport Way / Lathrop Road (Signal) [2]	33.2 (32.6)	C (C)	34.5 (34.1)	C (C)
8. Airport Way / Louise Avenue (Signal) [2]	26.2 (28.5)	C (C)	28.0 (29.5)	C (C)
9. Lathrop Road / I-5 SB Ramps (Signal) [2] [3]	17.8 (21.3)	B (C)	18.4 (22.0)	B (C)
10. Lathrop Road / I-5 NB Ramps (Signal) [2] [3]	34.1 (25.4)	C (C)	34.7 (26.3)	C (C)
11. Lathrop Road / Union Road (Signal)	**89.8 (80.2)**	**F (F)**	**90.3 (80.8)**	**F (F)**
12. Lathrop Road / SR 99 SB Ramps / Main Street (Signal)	47.4 (45.3)	D (D)	47.9 (45.9)	D (D)
13. Lathrop Road / SR 99 NB Ramps (Signal)	11.2 (10.8)	B (B)	11.4 (11.1)	B (B)
14. Airport Way / Tactical Way (SSSC)	10.6 (10.9)	B (B)	11.2 (11.8)	B (B)

Notes:

***Bold** indicates unacceptable operations.*

SSSC = Side-Street Stop Control; LOS = Level of Service

[1] For signalized intersections, roundabouts, and all-way stop controlled intersections, average intersection delay is reported in seconds per vehicle for all approaches. For side street stop-controlled intersections, intersection delay is reported in seconds per vehicle for the overall intersection and (worst-case) movement. Intersection delay is calculated based on the procedures and methodology contained in the Highway Capacity Manual 6th Edition (Transportation Research Board, 2016).

[2] Intersection lane configuration and/or traffic control are different from Existing Conditions due to planned intersection and roadway improvements.

[3] The future interchange design has not been formalized. Delay and LOS are estimated using an improved tight-diamond interchange configuration and are subject to change.

Source: Fehr & Peers, 2022

Recommended Conditions of Approval

The following conditions should be incorporated into the Conditions of Approval for the proposed project:

- **Traffic COA #1** – The developer shall pay for the total cost of construction of the Proposed Private Drive on the west site of the project site and require all truck traffic (delivery, California, and Surface Transportation Assistance Act – STAA) to use Intermodal Drive to access the Airport Business Centre North Project.
- **Traffic COA #2** – The developer shall pay their fair share for improvements identified in the City of Manteca Public Facilities Implementation Plan (PFIP) by paying current fees as determined by the City of Manteca prior to issuance of building permits to improve intersections in the City of Manteca.
- **Traffic COA #3** – The developer shall pay their fair share of the SJCOG Regional Transportation Impact Fee (RTIF) by paying current fees as determined by the City of Manteca prior to issuance of building permits top improve the Roth Road Corridor in the City of Manteca, City of Lathrop, and San Joaquin County.
- **Traffic COA #4** – The developer shall work with the City of Manteca Engineering Department and Caltrans District 10 to document STAA Terminal Access Route from Interstate 5 to Roth Road / Intermodal Way and Tactical Way / Airport Business Centre truck turnaround area.
- **Traffic COA #5** – The developer shall pay for the current PFIP fee as determined by the City of Manteca prior to issuance of building permits to mitigate the Union Road / Lathrop Road intersection under Cumulative Conditions. Based on the City of Manteca General Plan Travel Demand Forecasting (TDF) Model. the project contributes 1.3 percent of the volume at this intersection under Cumulative Plus Project Conditions, Therefore, the project's fair share contribution would be 1.3 percent of the total cost of installing a new traffic signal controller and completing a traffic signal timing optimization study that was identified as COA#3 for the North Manteca Annexation Project.

Response b): SB 743 created several statewide changes to the evaluation of transportation and traffic impacts under CEQA. First, it directs OPR to amend the CEQA Guidelines to establish new metrics for determining the significance of transportation impacts of projects within transit priority areas (TPAs) and allows OPR to extend use of the new metrics beyond TPAs. The California Natural Resources Agency certified and adopted the amended CEQA Guidelines in December 2018. In the amended CEQA Guidelines, OPR selected Vehicle Miles Traveled (VMT) as the primary transportation impact metric to be applied throughout the State of California.

The amended CEQA Guidelines state that "generally, VMT is the most appropriate measure of transportation impacts" and the provisions requiring the use of VMT shall apply statewide as of July 1, 2020. The amended CEQA Guidelines further state that land use "projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less-than-significant transportation impact."

Second, SB 743 establishes that aesthetic and parking impacts of a residential, mixed-use residential, or employment center projects on an infill site within a TPA shall not be considered significant impacts on the environment.

Third, SB 743 added section 21099 to the Public Resources Code, which states that automobile delay, as described by level of service (LOS) or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment upon certification of the CEQA Guidelines by the Natural Resources Agency. Since the amended CEQA Guidelines were certified in December 2018, LOS or similar measures of vehicular capacity or traffic congestion are not considered a significant impact on the environment under CEQA.

Lastly, SB 743 establishes a new CEQA exemption for a residential, mixed-use, and employment center project a) within a TPA, b) consistent with a specific plan for which an EIR has been certified, and c) consistent with an SCS. This exemption requires further review if the project or circumstances changes significantly.

Technical Advisory on Evaluating Transportation Impacts

To aid in SB 743 implementation, in December 2018 OPR released a Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory). The Technical Advisory provides advice and recommendations to CEQA lead agencies on how to implement the SB 743 changes. This includes technical recommendations regarding the assessment of VMT, thresholds of significance, VMT mitigation measures, and screening thresholds for certain land use projects. Lead agencies may consider and use these recommendations at their discretion and with the provision of substantial evidence to support alternative approaches.

The Technical Advisory identifies "screening thresholds" to quickly identify when a project should be expected to cause a less-than-significant impact without conducting a detailed study. The Technical Advisory suggests that projects meeting one or more of the following criteria should be expected to have a less-than-significant impact on VMT.

- Small projects – projects consistent with a SCS and local general plan that generate or attract fewer than 110 trips per day.
- Projects near major transit stops – certain projects (residential, retail, office, or a mix of these uses) proposed within ½ mile of an existing major transit stop or an existing stop along a high-quality transit corridor.
- Affordable residential development – a project consisting of a high percentage of affordable housing may be a basis to find a less-than-significant impact on VMT.
- Local-serving retail – local-serving retail development tends to shorten trips and reduce VMT. The Technical Advisory encourages lead agencies to decide when a project will likely be local-serving, but generally acknowledges that retail development including stores larger than 50,000 square feet might be considered regional-serving. The Technical Advisory suggests lead agencies analyze whether regional-serving retail would increase or decrease VMT (i.e., not presume a less-than-significant).
- Projects in low VMT areas – residential and office projects that incorporate similar features (i.e., density, mix of uses, transit accessibility) as existing development in areas with low VMT will tend to exhibit similarly low VMT.

The Technical Advisory also identifies recommended numeric VMT thresholds for residential, office, and retail projects, as described below.

- Residential development that would generate vehicle travel exceeding 15 percent below existing (baseline) residential VMT per capita may indicate a significant transportation impact. Existing VMT per capita may be measured as a regional VMT per capita or as city VMT per capita.
- Office projects that would generate vehicle travel exceeding 15 percent below existing regional VMT per employee may indicate a significant transportation impact.
- Retail projects (and other non-residential/non-office projects) that results in a net increase in total VMT may indicate a significant transportation impact.

For mixed-use projects, the Technical Advisory suggests evaluating each component independently and applying the significance threshold for each project type included. Alternatively, the lead agency may consider only the project's dominant use.

The Technical Advisory also provides guidance on impacts to transit. Specifically, the Technical Advisory suggests that lead agencies generally should not treat the addition of new transit users as an adverse impact. As an example, the Technical Advisory suggests that "an infill development may add riders to transit systems and the additional boarding and alighting may slow transit vehicles, but it also adds destinations, improving proximity and accessibility. Such development also improves regional vehicle flow by adding less vehicle travel onto the regional network."

VMT-Focused Transportation Impact Study Guide

On May 20, 2020, the VMT-Focused Transportation Impact Study Guide (TISG) was adopted. The TISG provides guidance on how Caltrans will review land use projects, with focus on VMT analysis and supporting state land use goals, state planning priorities, and GHG emission reduction goals; as well as identifying land use projects' possible transportation impacts to the State Highway System and potential non-capacity increasing mitigation measures.

The TISG emphasizes that VMT analysis is Caltrans' primary review focus, and references OPR's Technical Advisory as a basis for the guidance in the TISG. Notably, the TISG recommends the use of the recommended thresholds in the Technical Advisory for land use projects. The TISG also references the Technical Advisory for screening thresholds that would identify projects and areas presumed to have a less-than-significant transportation impact. Caltrans supports streamlining for projects that meet these screening thresholds because they help achieve VMT reduction and mode shift goals.

VMT Analysis

The proposed Airport Business Centre North Project does not qualify as a small project for screening purposes, and it is not located in a low VMT area. Therefore, consistent with the discussion of SB 743 provided above vehicle travel was evaluated using VMT as the primary metric. The following describes the baseline VMT levels for industrial land uses in the City of Manteca. The Baseline VMT and Cumulative Project VMT was developed using the City of Manteca travel demand model that was derived from the San Joaquin Council of Government's (SJCOG) Regional Travel Demand Model. The model was developed in 2020 and calibrated to adjusted pre COVID-19 traffic counts.

Roadway improvements and land use projections consistent with the SJCOG Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), City of Manteca General Plan, and City of Lathrop General Plan were added to the Cumulative Conditions Model.

A model-wide analysis was preformed to obtain daily trips and travel distance for all Industrial Transportation Analysis Zones (TAZs), and the product of daily trips and travel distance was summed up to obtain VMT estimates. It should be noted that the VMT analysis was based on Interconnect Way being constructed to provide access to and from Intermodal Way, Roth Road and the I-5 / Roth Road interchange for project-generated California Legal and STAA Truck traffic.

Table Trans-9 presents modeled Baseline Citywide from the Manteca General Plan EIR and Cumulative With Airport Business Centre North Project VMT per industrial employee. According to the Manteca General Plan EIR, the 2019 Baseline VMT per industrial employee is 75.3. The results of the VMT analysis showed that the proposed Airport Business Centre North Project will result in a decrease in VMT when compared to baseline citywide, from 75.3 to 74.8 vehicle miles per employee. This represents a relatively flat 0.6% decrease when compared to baseline city-wide average. It should be noted that the construction of the Airport Business Centre North Project will improve the jobs to housing balance in the City of Manteca and provide an overall benefit to reducing VMT per employee with fewer residents expected to leave the City for employment. This will result in fuel consumption and greenhouse gas emissions reductions.

Table Trans-9: Airport Business Centre North Project Vehicle Miles Traveled (VMT) Analysis

Scenario	*VMT Per Industrial Employee*	*VMT Reduction Per Industrial Employee*	*Percentage Reduction Per Industrial Employee*
Baseline Citywide	75.3		
Cumulative With Airport Business Centre North Project	74.8	- 0.5	-0.6%

Note: Citywide VMT includes All industrial land Uses in the City of Manteca

Source: City of Manteca Travel Demand Model - Fehr & Peers, 2022

The updated General Plan includes policies designed to reduce vehicle travel and vehicle miles traveled. The Circulation Element (Chapter 3.14) addresses providing adequate pedestrian, bicycle, and transit facilities and opportunities, promoting non-vehicle travel modes, requiring development projects that accommodate or employ fifty (50) or more employees to implement Transportation Demand Management (TDM) programs, and ensuring regional coordination on trip and VMT reduction efforts. General Plan policies and actions that contribute to VMT reductions are identified below. These policies and actions minimize VMT impacts to the greatest extent feasible.

Additionally, it should be noted that, as discussed in the Regulatory Setting, Governors Executive Order N-79-20 requires that 100 percent of in-state sales of new passenger cars and trucks be zero-emission by 2035. It shall be a further goal of the State that 100 percent of medium- and heavy-duty vehicles in the State be zero-emission by 2045 for all operations, where feasible, and by 2035 for drayage trucks. It shall be further a goal of the State to transition to 100 percent zero-emission off-road vehicles and equipment by 2035, where feasible. Accordingly, the City of Manteca aims to develop a Zero Emissions Vehicle Market Development Strategy that ensures expeditious implementation of the systems of policies, programs and regulations necessary to achieve the order.

Responses c), d): The proposed project would develop a distribution facility, which would build out a portion of the Northwest Airport Way Master Plan area, as planned. No site circulation or access issues have been identified that would cause a traffic safety problem/hazard or any unusual traffic congestion or delay within the proposed project. Truck ingress/egress is directed to Intermodal Way from Tactical, which are internal roadways. Truck traffic would not occur on Airport Way. The volumes on the internal roadways would be relatively low. Implementation of the proposed project would have a ***less than significant*** impact relative to this topic.

XVIII. TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?		X		
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resources to a California Native American tribe.		X		

Responses to Checklist Questions

Responses a), b): AB 52 Tribal Consultation is a requirement by which public agencies are required to consult with California Native American tribes that are traditionally and culturally affiliated with the geographic area of a proposed project that is subject to CEQA, if the tribes request formal notification and subsequently consultation.

In order to participate in AB 52 tribal consultation, a tribe must specifically request, in writing, to be notified by lead agencies through formal notification of proposed projects in the geographic area with which the tribe is traditionally and culturally affiliated. However, there are no tribes that have requested such formal notification of proposed projects in the City of Manteca. Therefore, according to AB 52, there is no requirement that a lead agency (i.e. City of Manteca) engage in AB 52 tribal consultation.

No Tribal Cultural Resources (TCRs) have been documented in the Project site. Nevertheless, the Project site is located in a region where significant cultural resources have been recorded and there remains a potential that undocumented archaeological resources that may meet the TCR definition could be unearthed or otherwise discovered during ground-disturbing and construction activities. Examples of significant archaeological discoveries that may meet the TCR definition would include villages and cemeteries. Due to the possible presence of undocumented TCRs within the Project site, construction-related impacts on tribal cultural resources would be potentially significant. With implementation of the following mitigation measure, the proposed Project would have a ***less than significant*** impact related to tribal cultural resources.

Mitigation Measures

Implement Mitigation Measures CUL-1, CUL-2, and CUL-4.

XIX. UTILITIES AND SERVICE SYSTEMS

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

Responses to Checklist Questions

Response a-c):

Water

It is anticipated that water supply for the proposed Project would be local groundwater and treated surface water from SSJID's South County Water Supply Program (SCWSP). Water distribution will be by an underground distribution system to be installed as per the City of Manteca standards and specifications. The applicant for the proposed Project will provide their proportionate share of required funding to the City for the acquisition and delivery of treated potable water supplies to the proposed Project site through connection fees.

The City's General Plan designates the Project site as LI, which allows for the uses proposed for the proposed Project. Therefore, the City's 2023 General Plan anticipated the proposed Project and the City's UWMP assumed that the site would be developed with LI uses. There are no changes to the land use assumptions in the City's General Plan Update, and UWMP Update. The following analysis reflects the City's most current water demand and supply projections based on the General Plan Update.

A comparison of the City's projected potable and raw water supplies and demands is shown in Table UTIL-1 for Normal, Single Dry, and Multiple Dry Years. Demand within the City's service area is not expected to exceed the City's supplies in any Normal year between 2020 and 2040. No

demand reductions are assumed during dry years. With this assumption, the City's water demands are not expected to exceed water supplies in Single Dry Years or Multiple Dry Years.

Table UTIL-1: Summary of Potable and Raw Water Demand Versus Supply During Hydrologic Normal, Single Dry, and Multiple Dry Years

HYDROLOGIC CONDITION		SUPPLY AND DEMAND COMPARISON, AFY			
		2025	2030	2035	2040
NORMAL YEAR					
Available Potable and Raw Water Supply(a)		23,260	25,247	27,569	37,284
Total Water Demand(b)		18,480	21,012	23,891	27,164
Potential Surplus (Deficit)		4,780	4,235	3,678	10,120
Supply Shortfall, Percent of Demand		-	-	-	-
SINGLE DRY YEAR					
Available Potable and Raw Water Supply(a)		23,260	25,247	27,569	37,284
Total Water Demand(b)		18,480	21,012	23,891	27,164
Potential Surplus (Deficit)		4,780	4,235	3,678	10,120
Supply Shortfall, Percent of Demand		-	-	-	-
MULTIPLE DRY YEAR					
Multiple Dry Year 1	Available Potable and Raw Water Supply(a)	23,260	25,247	27,569	37,284
	Total Water Demand(b)	18,480	21,012	23,891	27,164
	Potential Surplus (Deficit)	4,780	4,235	3,678	10,120
	Supply Shortfall, Percent of Demand	-	-	-	-
Multiple Dry Year 2	Available Potable and Raw Water Supply(a)	23,260	25,247	27,569	37,284
	Total Water Demand(b)	18,480	21,012	23,891	27,164
	Potential Surplus (Deficit)	4,780	4,235	3,678	10,120
	Supply Shortfall, Percent of Demand	-	-	-	-
Multiple Dry Year 3	Available Potable and Raw Water Supply(a)	21,409	24,313	27,552	33,376
	Total Water Demand(b)	18,480	21,012	23,891	27,164
	Potential Surplus (Deficit)	2,929	3,301	3,661	6,212
	Supply Shortfall, Percent of Demand	-	-	-	-
Multiple Dry Year 4	Available Potable and Raw Water Supply(a)	21,409	24,313	27,552	33,376
	Total Water Demand(b)	18,480	21,012	23,891	27,164
	Potential Surplus (Deficit)	2,929	3,301	3,661	6,212
	Supply Shortfall, Percent of Demand	-	-	-	-
Multiple Dry Year 5	Available Potable and Raw Water Supply(a)	23,260	25,247	27,569	37,284
	Total Water Demand(b)	18,480	21,012	23,891	27,164
	Potential Surplus (Deficit)	4,780	4,235	3,678	10,120
	Supply Shortfall, Percent of Demand	-	-	-	-

(A) SURFACE WATER SUPPLY FROM TABLE 6-2 PLUS ASSUMED GROUNDWATER SUPPLY FROM TABLE 6-3.

(B) EQUALS THE CITY'S TOTAL PROJECTED POTABLE AND RAW WATER DEMAND (FROM TABLE 5-1 AND TABLE 5-4).

The technical analyses shows that the total projected water supplies determined to be available for the Proposed Project during Normal, Single Dry, and Multiple Dry years during a 20-year projection will meet the projected water demand associated with the Proposed Project, in addition to existing and planned future uses. The proposed Project would not result in

insufficient water supplies available to serve the Project from existing entitlements and resources. Therefore, the proposed Project would result in a **less than significant** impact to water supplies.

Wastewater

The City of Manteca owns and operates a wastewater collection, treatment, and disposal system, and provides sanitary sewerage service to the City of Manteca and a portion of the City of Lathrop. On February 18, 2021, the RWQCB adopted Waste Discharge Requirements Order No. R5-2021-0003 NPDES NO. CA0081558, prescribing waste discharge requirements for the City of Manteca WQCF and allowing expansion of the plant up to 17.5 mgd.

The Manteca WQCF is an activated sludge plant with denitrification. The WQCF consists of an influent pump station, aerated grit tanks, primary sedimentation basins, fine-bubble activated sludge aeration basins, secondary clarifiers, secondary effluent equalization pond, tertiary filters, UV disinfection and effluent pumping station. Secondary effluent is land applied during the spring and summer. Tertiary filtered and UV disinfected water is discharged to the San Joaquin River during the winter.

The 2006 Wastewater Master Plan Update projected a capacity requirement of 27 mgd ADWF at buildout for the WQCF at buildout. Expansion of the WQCF to buildout would occur in multiple phases, which would increase the ADWF capacity to 17.5 mgd, then to 27 mgd. The Wastewater Master Plan projected a potential reclaimed water use of 3.28 mgd. The 2005 Urban Water Management Plan projected a reclaimed water usage of 2 mgd by 2030. All of these flows may be adjusted based on historical reductions in water usage as part of a new Wastewater Master Plan which will start in 2021 and finish in 2023.

According to the City's 2012 Wastewater Collection System Master Plan Update, Light Industrial uses are estimated to generated 1000 gallons per acre per day. The Project site includes 21.3 acres of Light Industrial. Using this rate, the proposed Light Industrial uses on the Project site would generate approximately 21,300 gallons per day (gpd) of wastewater. The exact wastewater generated would be dependent on the business operation. It is noted that this wastewater generation number may provide to be a significant overestimate for a warehouse distribution facility; however, the end user is not known at this time. The wastewater would be treated at the WQCF. Occupancy of the proposed Project would be prohibited without sewer allocation.

The City's available capacity would ensure that there would not be a determination by the wastewater treatment and/or collection provider that there is inadequate capacity to serve the proposed Project's projected demand in addition to the provider's existing commitments. Additionally, any planned expansion to the WQCF (such as a planned expansion to a total capacity of 27 mgd) with a subsequent allocation of capacity to the proposed Project would ensure that there would not be a determination by the wastewater treatment and/or collection provider that there is inadequate capacity to serve the proposed Project's projected demand in addition to the provider's existing commitments.

As noted above, the City's 2023 General Plan designates the Project site as LI, which allows for the uses proposed by the proposed Project. Therefore, the City's 2023 General Plan anticipated the uses associated with the proposed Project on the Project site.

Because the Project applicant would pay City Public Facilities Implementation Plan (PFIP) fees to develop the site, and adequate long-term wastewater treatment capacity is available to serve full

build-out of the proposed Project, a ***less than significant*** impact would occur related to requiring or resulting in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Nevertheless, to ensure consistency with the Northwest Airport Way Master Plan, the proposed Project is required to implement the following mitigation measures, which would ensure water efficiency within the Project site.

Storm Drainage

Stormwater management at the project site would comply with the requirements of the City of Manteca Municipal Code. This would require the applicant to shall submit a stormwater quality control plan for the project as a whole to the City of Manteca for review and approval during improvement plan review. The plan must include a detailed drainage plan that demonstrates attainment of pre-project runoff requirements prior to release at the outlet canal and describes the volume reduction measures and treatment controls used to reach attainment. The drainage plan must identify all expected flows from the project area and the location, size, and type of facilities used to retain and treat the runoff volumes and peak flows to meet pre-project conditions.

Mitigation Adopted by the City

Mitigation Measure PSU-3a*: Prior to issuance of building permits for each Master Plan use, the applicant shall prepare and submit documentation to the City of Manteca for review and approval identifying a non-potable irrigation system that is separate from the potable water systems. The non-potable irrigation system shall use non-potable well water until recycled water is available, at which point it shall be converted to use recycled water.*

Mitigation Measure PSU-3b*: Prior to issuance of building permits for each Master Plan use, the applicant shall prepare and submit documentation to the City of Manteca for review and approval identifying that all appropriate and feasible water conservation measures are incorporated into the proposed use(s). The approved measures shall be incorporated into the final development plans. Examples of water conservation measures include but are not limited to:*

- *Drought-tolerant landscaping or xeriscaping*
- *Water efficient irrigation systems (drip irrigation, bubbler/soaker systems, hydrozones, evapotranspiration controllers, etc.)*
- *Sensor-activated low-flow fixtures (e.g., faucets, urinals, and toilets)*

Responses d), e): The City of Manteca Solid Waste Division (SWD) provides solid waste hauling service for the City of Manteca and would serve the proposed Project. Solid waste from Manteca is primarily landfilled at the Forward Sanitary Landfill, located northeast of Manteca. Other landfills used include Foothill Sanitary and North County.

Construction Waste Generation

Short-term construction waste generation is summarized in Table UTIL-2. The estimate of 700 tons was calculated using non-residential construction waste generation rates provided by the U.S. Environmental Protection Agency.

Table UTIL-2: Construction Solid Waste Generation

Activity	Waste Generation Rate	Square Feet	Waste Generation (Tons)
Construction	3.89 pounds per square foot	360,000	700

Mitigation Measure PSU-6a is proposed that would require construction debris recycling to be implemented. The implementation of this mitigation measure would reduce potential impacts to a level of less than significant.

Operational Waste Generation

Operational solid waste generation estimates were calculated using a standard commercial waste generation rate provided by Cal Recycle. As shown in Table UTIL-3, the proposed Project uses are estimated to generate 864 tons of solid waste annually.

Table UTIL-3: Operational Solid Waste Generation (Annual)

Waste Generation Rate	Square Feet	Waste Generation (Tons)
4.8 pounds per square foot	360,000	864

Regardless, Mitigation Measure PSU-6b would require the installation recycling facilities prior to issuance of occupancy permits. The implementation of this mitigation measure would reduce solid waste generation and reduce demand for landfill capacity. Therefore, solid waste impacts would be reduced to a level of ***less than significant***.

Landfill

Forward Sanitary Landfill has a remaining capacity of 23,700,000 cubic yards, and has a current maximum permitted throughput of 8,668 tons per day. This landfill originally had a cease operation date in the year 2020. A 17.3-acre expansion was approved in January of 2020 inside the landfill's existing boundaries along Austin Road east of Stockton Metropolitan Airport. The lifespan of the landfill will extend from 2030 to 2036 and an additional 8.2 million cubic yards of waste will be processed on two sites, an 8.7-acre parcel in the northeast corner and an 8.6-acre parcel on the south end of the property. The City will need to secure a new location or expand existing facilities when the Forward Landfill is ultimately closed. There are several options that the City will have to consider for solid waste disposal at that time which is estimated to be 2036, including the construction of new facilities or expansion of existing facilities.

At the closure of the Forward Landfill, the City can potentially utilize the Foothill Landfill and the North County Landfill as locations for solid waste disposal. The permitted maximum disposal at the Foothill Landfill is 1,500 tons per day and the North County Landfill is 825 tons per day. The remaining capacity of these landfills include 125 million cubic yards of solid waste at the Foothill Landfill, with an estimated cease operation date of 2054, and 35.4 million cubic yards of solid waste at the North County Landfill, which has an estimated cease operation date of 2035. The addition of solid waste associated with the proposed Project to the Foothill Landfill and North County Landfill would not exceed the combined landfills' remaining capacity of 160.4 cubic yards.

The addition of solid waste associated with the proposed Project, approximately 2.3 tons per day at total buildout, to the Forward Landfill would not exceed the landfill's remaining capacity. The City will need to secure a new location of disposal of all solid waste generated in the City when the Forward landfill is ultimately closed. There are several options that the City will have to consider for solid waste disposal at that time. Because the proposed Project would increase the local waste stream, the proposed Project would subject to the City's waste connection fee.

Development of the site for industrial uses was assumed in the City's General Plan EIR. The proposed Project would not interfere with regulations related to solid waste (i.e. the State-mandated waste target of not less than 75 percent of solid waste generated be source reduced, recycled, or composted), or generate waste in excess of the capacity of local infrastructure. Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

Mitigation Adopted by the City

Mitigation Measure PSU-6a*: Prior to issuance of building permits, the Project applicant shall retain a qualified contractor to perform construction debris recycling. Following the completion of construction activities, the Project applicant shall provide documentation to the satisfaction of the City of Manteca demonstrating that construction debris was recycled.*

Mitigation Measure PSU-6b*: Prior to issuance of building permits, the Project applicant shall provide information to the City of Manteca describing the methods by which recycling and waste diversion activities shall be achieved. This information shall include but is not limited to the type and location of facilities necessary to collect and store recyclable materials, contractors who would pick-up recyclable and reusable materials, and how recycling and waste diversion activities would be integrated into operational practices. To the extent feasible, centralized recycling facilities are encouraged to enhance the ease and efficiency of such practices. The approved facilities and practices shall be incorporated into the uses envisioned by the project.*

XX. WILDFIRE

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

Existing Setting

There are no State Responsibility Areas (SRAs) within the vicinity of the Manteca Planning Area. In addition, there are no areas within the City of Manteca that are categorized as a "Very High" Fire Hazard Severity Zone (FHSZ) by CalFire or a local agency. Although this CEQA topic only applies to areas within a SRA or Very High FHSZ, out of an abundance of caution, these checklist questions are analyzed below.

Responses to Checklist Questions

Response a): The proposed circulation improvements would allow for sufficient emergency access. The Project site would provide adequate emergency vehicular access via driveway connections with adjoining roadways and an internal circulation network. All driveways and internal roadways would be designed to accommodate large emergency vehicles such as fire engines. These improvements would contribute to effective emergency response and evacuation, and they would promote efficient circulation in the project vicinity. Furthermore, the proposed Project does not propose any permanent road closures, lane reductions, or other adverse circulation conditions that may adversely affect emergency response or evacuation in the project vicinity. Furthermore, the City of Manteca does not maintain an emergency response plan or emergency evacuation plan. Therefore, impacts from project implementation would be considered ***less than significant*** relative to this topic.

Response b): The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents) and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point. San Joaquin County has areas with an abundance of flashy fuels (i.e. grassland) in the foothill areas of

the eastern and western portion of the County. The Project site is located in an area that is predominately agricultural and urban, which is not considered at a significant risk of wildfire. Therefore, impacts from project implementation would be considered ***less than significant*** relative to this topic.

Response c): Development of the proposed Project would not exacerbate fire risks, nor would there be installation or maintenance of any other infrastructure associated with the proposed Project that would significantly exacerbate fire risk or result in temporary or ongoing impacts to the environment. Therefore, impacts from project implementation would be considered ***less than significant*** relative to this topic.

Response d): Landslides include rockfalls, deep slope failure, and shallow slope failure. Factors such as the geological conditions, drainage, slope, vegetation, and others directly affect the potential for landslides. One of the most common causes of landslides is construction activity that is associated with road building (i.e. cut and fill). The Project site is relatively flat; therefore, the potential for a landslide, as a result of runoff, post-fire slope instability, or drainage changes, in the Project site is essentially non-existent.

Therefore, impacts from proposed project implementation would be considered ***less than significant*** relative to this topic.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

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

Responses to Checklist Questions

Response a): This Initial Study includes an analysis of the proposed Project impacts associated with aesthetics, agricultural and forest resources, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utilities and service systems. The analysis covers a broad spectrum of topics relative to the potential for the proposed Project to have environmental impacts. This includes the potential for the proposed Project to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. It was found that the proposed Project would have either no impact, a less than significant impact, or a less than significant impact with the implementation of mitigation measures. For the reasons presented throughout this Initial Study, the proposed Project would not substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. With the implementation of mitigation measures presented in this Initial Study, the proposed Project would have a ***less than significant*** impact relative to this topic.

Response b): In evaluating the cumulative effects of the proposed Project, Section 21100(e) of the *CEQA Guidelines* states that "previously approved land use documents including, but not limited to, general plans, specific plans, and local coastal plans, may be used in cumulative impact

analysis." The City of Manteca maintains a list of ongoing commercial and industrial development, as provided in the "Ongoing Projects" list in Appendix F.

The 2018 RTP/SCS analyzed the region's transportation system, future growth projections, and potential funding sources in order in order to develop a long-term framework for transportation improvements and maintenance. The RTP includes policies and regulations set forth to ensure development within the SJCOG regional area is within planned and forecast socioeconomic projections. As part of the RTP, SJCOG developed an SCS, which was required by Senate Bill 375, the Sustainable Communities Act of 2008. The SCS is intended to combine land use and transportation planning with the overall goal of reducing greenhouse gas emissions generated by vehicle travel. According to traffic analysis described in Section XVII. Transportation, the proposed Project provides an overall benefit to reducing VMT.

Although the potential exists for the proposed Project to result in population growth through employment opportunities, the proposed Project is not expected to exceed growth projections or generate any increase in population that otherwise would not have been planned for in the City or by SJCOG.

As discussed in Section III. Air Quality, construction and operation of the proposed Project would not generate criteria pollutants in excess of the SJVAPCD emissions thresholds. Therefore, the proposed Project would not contribute significantly to cumulative impacts for any air quality pollutants for which the region is in non-attainment. As for cumulative impacts to regional air quality, the discussion in Section III. Air Quality indicates the proposed Project would not jeopardize the region's attainment of air quality standards. The SJVAPCD uses project-level significance thresholds to determine whether a project's emissions are cumulatively considerable. Because the proposed Project's emissions do not exceed the SJVAPCD's regional significance thresholds, as detailed in Section III. Air Quality, the SJVAPCD does not consider the proposed Project to contribute significantly to a cumulative air quality impact.

As detailed in Section XIII. Noise, for the cumulative conditions, a less than significant offsite noise impact from Master Plan-related vehicle traffic noise would occur along the study area roadways.

Finally, as detailed throughout Section XIX., Utilities and Service Systems, sufficient utility facilities and resources are available to serve the proposed Project in addition to existing entitlements.

Conclusion

This Initial Study includes an analysis of the proposed Project impacts associated with aesthetics, agricultural and forest resources, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation/traffic, and utilities and service systems. The analysis covers a broad spectrum of topics relative to the potential for the proposed Project to have environmental impacts. It was found that the proposed Project would have either no impact, a less than significant impact, or a less than significant impact with the implementation of mitigation measures. These mitigation measures would also function to reduce the proposed Project's contribution to cumulative impacts.

The proposed Project would increase the population and use of public services and systems; however, it was found that there is adequate capacity to accommodate the proposed Project.

The proposed Project has no impact or a less than significant impact with respect to all environmental issues. Therefore, a ***less than significant*** cumulative impact would occur, and mitigation is not required.

Responses c): The construction phase could affect surrounding neighbors through increased air emissions, noise, and traffic; however, the construction effects are temporary and are not substantial. The operational phase could also affect surrounding neighbors through increased air emissions, noise, and traffic; however, mitigation measures have been incorporated into the proposed Project that would reduce the impacts to a less than significant level. The proposed Project would not cause substantial adverse effects on human beings. Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

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APPENDIX A: AIR QUALITY TECHNICAL INFORMATION

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Manteca Airport Business Center North

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	350.00	1000sqft	8.03	350,000.00	0
Parking Lot	13.04	Acre	13.04	568,022.40	0
General Office Building	10.00	1000sqft	0.23	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2024
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Total gross lot size = 21.3 acres. 360,000 sf industrial building (unrefrigerated warehouse). 350 ksf warehouse; 10 ksf office. Based on gross lot size, assumes 13.04 acres of parking lot.

Construction Phase -

Demolition - Demolition of on-site buildings calculated to be approximately: 21,575 + 1,850 + 1,577 + 2,711 + 9,958 + 3,825 + 812 + 349 square feet = approx 42,657 square feet to be demolished.

Grading - Site will not require import/export, balanced on site.

Architectural Coating - This project does not contain interior coatings.

Vehicle Trips - 1,358 total daily vehicles, per Fehr & Peers (traffic consultant). Equivalent to 3.88 per 1000 sf per day.

Area Coating - 100 g/L for exterior coating limitations provided per rule 4601. No interior coatings for this project.

Land Use Change -

Manteca Airport Business Center North - San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Sequestration -

Construction Off-road Equipment Mitigation - Per SJVACPD requirements/rules for dust prohibition.

Mobile Land Use Mitigation -

Area Mitigation - No interior paint.

Water Mitigation - Water conservation per current Title 24 requirements (i.e. low-floor indoor water use fixtures; water-efficient irrigation systems).

Operational Off-Road Equipment -

Fleet Mix - Fleet mix adjusted to reflect proportion of heavy-duty trucks (HHD) as a proportion of overall vehicle fleet (19.8822%)

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	0.00
tblAreaCoating	Area_EF_Nonresidential_Interior	150	0
tblAreaCoating	Area_EF_Residential_Interior	150	0
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	5
tblFleetMix	HHD	0.02	0.20
tblFleetMix	LDA	0.54	0.44
tblFleetMix	LDT1	0.05	0.04
tblFleetMix	LDT2	0.17	0.14
tblFleetMix	LHD1	0.03	0.02
tblFleetMix	LHD2	6.2410e-003	5.1060e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.15	0.12
tblFleetMix	MH	3.5220e-003	2.8810e-003
tblFleetMix	MHD	0.01	8.7350e-003
tblFleetMix	OBUS	4.7100e-004	0.00
tblFleetMix	SBUS	1.1190e-003	0.00
tblFleetMix	UBUS	3.2500e-004	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	ST_TR	1.74	3.88
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	SU_TR	1.74	3.88
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	WD_TR	1.74	3.88
tblVehicleTrips	WD_TR	9.74	0.00

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0972	1.2329	0.7408	2.6800e-003	0.7327	0.0442	0.7769	0.1790	0.0409	0.2199	0.0000	246.7937	246.7937	0.0380	0.0197	253.6185
2023	0.3748	2.9049	3.5265	0.0108	0.5995	0.1019	0.7013	0.1620	0.0958	0.2578	0.0000	988.0697	988.0697	0.0888	0.0641	1,009.3918
2024	0.9357	1.3587	1.7613	5.2800e-003	0.2536	0.0456	0.2992	0.0688	0.0429	0.1117	0.0000	481.3163	481.3163	0.0445	0.0302	491.4125
Maximum	**0.9357**	**2.9049**	**3.5265**	**0.0108**	**0.7327**	**0.1019**	**0.7769**	**0.1790**	**0.0958**	**0.2578**	**0.0000**	**988.0697**	**988.0697**	**0.0888**	**0.0641**	**1,009.3918**

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	0.0972	1.2329	0.7408	2.6800e-003	0.3489	0.0442	0.3931	0.0859	0.0409	0.1268	0.0000	246.7935	246.7935	0.0380	0.0197	253.6184
2023	0.3748	2.9049	3.5265	0.0108	0.5141	0.1019	0.6160	0.1403	0.0958	0.2360	0.0000	988.0693	988.0693	0.0888	0.0641	1,009.3915
2024	0.9357	1.3587	1.7613	5.2800e-003	0.2347	0.0456	0.2803	0.0642	0.0429	0.1070	0.0000	481.3161	481.3161	0.0445	0.0302	491.4123
Maximum	**0.9357**	**2.9049**	**3.5265**	**0.0108**	**0.5141**	**0.1019**	**0.6160**	**0.1403**	**0.0958**	**0.2360**	**0.0000**	**988.0693**	**988.0693**	**0.0888**	**0.0641**	**1,009.3915**

Manteca Airport Business Center North - San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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**	**30.77**	**0.00**	**27.46**	**29.16**	**0.00**	**20.28**	**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	**10-15-2022**	**1-14-2023**	1.5370	1.5370
2	**1-15-2023**	**4-14-2023**	0.8013	0.8013
3	**4-15-2023**	**7-14-2023**	0.7965	0.7965
4	**7-15-2023**	**10-14-2023**	0.8077	0.8077
5	**10-15-2023**	**1-14-2024**	0.8155	0.8155
6	**1-15-2024**	**4-14-2024**	0.7702	0.7702
7	**4-15-2024**	**7-14-2024**	0.6845	0.6845
8	**7-15-2024**	**9-30-2024**	0.7073	0.7073
		Highest	1.5370	1.5370

Manteca Airport Business Center North - San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.5174	3.0000e-005	3.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.6700e-003	6.6700e-003	2.0000e-005	0.0000	7.1000e-003
Energy	0.0123	0.1118	0.0939	6.7000e-004		8.5000e-003	8.5000e-003		8.5000e-003	8.5000e-003	0.0000	296.3725	296.3725	0.0306	5.6600e-003	298.8229
Mobile	0.5926	3.5782	5.9378	0.0230	1.5132	0.0313	1.5445	0.4064	0.0297	0.4361	0.0000	2,168.8552	2,168.8552	0.0639	0.2256	2,237.6849
Waste						0.0000	0.0000		0.0000	0.0000	68.6718	0.0000	68.6718	4.0584	0.0000	170.1316
Water						0.0000	0.0000		0.0000	0.0000	26.2416	41.7636	68.0052	2.7020	0.0645	154.7648
Total	**2.1223**	**3.6900**	**6.0351**	**0.0237**	**1.5132**	**0.0398**	**1.5530**	**0.4064**	**0.0383**	**0.4446**	**94.9134**	**2,506.9981**	**2,601.9115**	**6.8550**	**0.2957**	**2,861.4114**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.5174	3.0000e-005	3.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.6700e-003	6.6700e-003	2.0000e-005	0.0000	7.1000e-003
Energy	0.0123	0.1118	0.0939	6.7000e-004		8.5000e-003	8.5000e-003		8.5000e-003	8.5000e-003	0.0000	296.3725	296.3725	0.0306	5.6600e-003	298.8229
Mobile	0.5926	3.5782	5.9378	0.0230	1.5132	0.0313	1.5445	0.4064	0.0297	0.4361	0.0000	2,168.8552	2,168.8552	0.0639	0.2256	2,237.6849
Waste						0.0000	0.0000		0.0000	0.0000	68.6718	0.0000	68.6718	4.0584	0.0000	170.1316
Water						0.0000	0.0000		0.0000	0.0000	20.9933	33.4599	54.4532	2.1616	0.0516	123.8614
Total	**2.1223**	**3.6900**	**6.0351**	**0.0237**	**1.5132**	**0.0398**	**1.5530**	**0.4064**	**0.0383**	**0.4446**	**89.6651**	**2,498.6944**	**2,588.3595**	**6.3146**	**0.2828**	**2,830.5079**

	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**	**5.53**	**0.33**	**0.52**	**7.88**	**4.36**	**1.08**

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	10/15/2022	11/11/2022	5	20	
2	Site Preparation	Site Preparation	11/12/2022	11/25/2022	5	10	
3	Grading	Grading	11/26/2022	1/13/2023	5	35	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Building Construction	Building Construction	1/14/2023	6/14/2024	5	370	
5	Paving	Paving	6/15/2024	7/12/2024	5	20	
6	Architectural Coating	Architectural Coating	7/13/2024	8/9/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 105

Acres of Paving: 13.04

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 540,000; Non-Residential Outdoor: 180,000; Striped Parking Area: 34,081 (Architectural Coating – sqft)

OffRoad Equipment

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	6	15.00	0.00	4,218.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	389.00	152.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	78.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					0.4636	0.0000	0.4636	0.0702	0.0000	0.0702	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**	**0.4636**	**0.0124**	**0.4760**	**0.0702**	**0.0116**	**0.0817**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

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	8.0500e-003	0.3237	0.0612	1.3000e-003	0.0360	3.2500e-003	0.0392	9.8900e-003	3.1100e-003	0.0130	0.0000	124.7463	124.7463	8.7000e-004	0.0196	130.6149
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	4.7000e-004	3.3000e-004	3.7300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9702	0.9702	3.0000e-005	3.0000e-005	0.9797
Total	**8.5200e-003**	**0.3240**	**0.0649**	**1.3100e-003**	**0.0372**	**3.2600e-003**	**0.0404**	**0.0102**	**3.1200e-003**	**0.0133**	**0.0000**	**125.7165**	**125.7165**	**9.0000e-004**	**0.0197**	**131.5946**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2022

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					0.2086	0.0000	0.2086	0.0316	0.0000	0.0316	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**	**0.2086**	**0.0124**	**0.2210**	**0.0316**	**0.0116**	**0.0431**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

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	8.0500e-003	0.3237	0.0612	1.3000e-003	0.0335	3.2500e-003	0.0368	9.2900e-003	3.1100e-003	0.0124	0.0000	124.7463	124.7463	8.7000e-004	0.0196	130.6149
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	4.7000e-004	3.3000e-004	3.7300e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.9702	0.9702	3.0000e-005	3.0000e-005	0.9797
Total	**8.5200e-003**	**0.3240**	**0.0649**	**1.3100e-003**	**0.0346**	**3.2600e-003**	**0.0379**	**9.5800e-003**	**3.1200e-003**	**0.0127**	**0.0000**	**125.7165**	**125.7165**	**9.0000e-004**	**0.0197**	**131.5946**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0983**	**8.0600e-003**	**0.1064**	**0.0505**	**7.4200e-003**	**0.0579**	**0.0000**	**16.7197**	**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

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	2.8000e-004	2.0000e-004	2.2400e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5821	0.5821	2.0000e-005	2.0000e-005	0.5878
Total	**2.8000e-004**	**2.0000e-004**	**2.2400e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5821**	**0.5821**	**2.0000e-005**	**2.0000e-005**	**0.5878**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2022

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					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0442**	**8.0600e-003**	**0.0523**	**0.0227**	**7.4200e-003**	**0.0302**	**0.0000**	**16.7197**	**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

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	2.8000e-004	2.0000e-004	2.2400e-003	1.0000e-005	6.6000e-004	0.0000	6.6000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5821	0.5821	2.0000e-005	2.0000e-005	0.5878
Total	**2.8000e-004**	**2.0000e-004**	**2.2400e-003**	**1.0000e-005**	**6.6000e-004**	**0.0000**	**6.6000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.5821**	**0.5821**	**2.0000e-005**	**2.0000e-005**	**0.5878**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					0.1310	0.0000	0.1310	0.0474	0.0000	0.0474	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0453	0.4855	0.3630	7.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	68.1683	68.1683	0.0221	0.0000	68.7194
Total	**0.0453**	**0.4855**	**0.3630**	**7.8000e-004**	**0.1310**	**0.0204**	**0.1514**	**0.0474**	**0.0188**	**0.0662**	**0.0000**	**68.1683**	**68.1683**	**0.0221**	**0.0000**	**68.7194**

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	7.9000e-004	5.5000e-004	6.2200e-003	2.0000e-005	1.9900e-003	1.0000e-005	2.0000e-003	5.3000e-004	1.0000e-005	5.4000e-004	0.0000	1.6169	1.6169	5.0000e-005	5.0000e-005	1.6329
Total	**7.9000e-004**	**5.5000e-004**	**6.2200e-003**	**2.0000e-005**	**1.9900e-003**	**1.0000e-005**	**2.0000e-003**	**5.3000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.6169**	**1.6169**	**5.0000e-005**	**5.0000e-005**	**1.6329**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2022

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					0.0589	0.0000	0.0589	0.0213	0.0000	0.0213	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0453	0.4855	0.3630	7.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	68.1682	68.1682	0.0221	0.0000	68.7193
Total	**0.0453**	**0.4855**	**0.3630**	**7.8000e-004**	**0.0589**	**0.0204**	**0.0794**	**0.0213**	**0.0188**	**0.0401**	**0.0000**	**68.1682**	**68.1682**	**0.0221**	**0.0000**	**68.7193**

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	7.9000e-004	5.5000e-004	6.2200e-003	2.0000e-005	1.8400e-003	1.0000e-005	1.8500e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.6169	1.6169	5.0000e-005	5.0000e-005	1.6329
Total	**7.9000e-004**	**5.5000e-004**	**6.2200e-003**	**2.0000e-005**	**1.8400e-003**	**1.0000e-005**	**1.8500e-003**	**4.9000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.6169**	**1.6169**	**5.0000e-005**	**5.0000e-005**	**1.6329**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 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					
Fugitive Dust					0.0858	0.0000	0.0858	0.0226	0.0000	0.0226	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0166	0.1726	0.1403	3.1000e-004		7.1200e-003	7.1200e-003		6.5500e-003	6.5500e-003	0.0000	27.2676	27.2676	8.8200e-003	0.0000	27.4881
Total	**0.0166**	**0.1726**	**0.1403**	**3.1000e-004**	**0.0858**	**7.1200e-003**	**0.0929**	**0.0226**	**6.5500e-003**	**0.0291**	**0.0000**	**27.2676**	**27.2676**	**8.8200e-003**	**0.0000**	**27.4881**

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	2.9000e-004	1.9000e-004	2.2700e-003	1.0000e-005	8.0000e-004	0.0000	8.0000e-004	2.1000e-004	0.0000	2.2000e-004	0.0000	0.6259	0.6259	2.0000e-005	2.0000e-005	0.6317
Total	**2.9000e-004**	**1.9000e-004**	**2.2700e-003**	**1.0000e-005**	**8.0000e-004**	**0.0000**	**8.0000e-004**	**2.1000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**0.6259**	**0.6259**	**2.0000e-005**	**2.0000e-005**	**0.6317**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

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					0.0386	0.0000	0.0386	0.0102	0.0000	0.0102	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0166	0.1726	0.1403	3.1000e-004		7.1200e-003	7.1200e-003		6.5500e-003	6.5500e-003	0.0000	27.2676	27.2676	8.8200e-003	0.0000	27.4880
Total	**0.0166**	**0.1726**	**0.1403**	**3.1000e-004**	**0.0386**	**7.1200e-003**	**0.0457**	**0.0102**	**6.5500e-003**	**0.0167**	**0.0000**	**27.2676**	**27.2676**	**8.8200e-003**	**0.0000**	**27.4880**

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	2.9000e-004	1.9000e-004	2.2700e-003	1.0000e-005	7.3000e-004	0.0000	7.4000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6259	0.6259	2.0000e-005	2.0000e-005	0.6317
Total	**2.9000e-004**	**1.9000e-004**	**2.2700e-003**	**1.0000e-005**	**7.3000e-004**	**0.0000**	**7.4000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6259**	**0.6259**	**2.0000e-005**	**2.0000e-005**	**0.6317**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.1966	1.7981	2.0305	3.3700e-003		0.0875	0.0875		0.0823	0.0823	0.0000	289.7559	289.7559	0.0689	0.0000	291.4791
Total	**0.1966**	**1.7981**	**2.0305**	**3.3700e-003**		**0.0875**	**0.0875**		**0.0823**	**0.0823**	**0.0000**	**289.7559**	**289.7559**	**0.0689**	**0.0000**	**291.4791**

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	0.0201	0.8406	0.2474	3.8100e-003	0.1256	5.3700e-003	0.1309	0.0363	5.1400e-003	0.0414	0.0000	366.0722	366.0722	1.8000e-003	0.0553	382.6095
Worker	0.1412	0.0934	1.1061	3.3200e-003	0.3873	1.9100e-003	0.3892	0.1030	1.7600e-003	0.1047	0.0000	304.3481	304.3481	9.2700e-003	8.7400e-003	307.1834
Total	**0.1613**	**0.9340**	**1.3535**	**7.1300e-003**	**0.5129**	**7.2800e-003**	**0.5202**	**0.1393**	**6.9000e-003**	**0.1462**	**0.0000**	**670.4202**	**670.4202**	**0.0111**	**0.0641**	**689.7929**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2023

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	0.1966	1.7981	2.0305	3.3700e-003		0.0875	0.0875		0.0823	0.0823	0.0000	289.7556	289.7556	0.0689	0.0000	291.4788
Total	**0.1966**	**1.7981**	**2.0305**	**3.3700e-003**		**0.0875**	**0.0875**		**0.0823**	**0.0823**	**0.0000**	**289.7556**	**289.7556**	**0.0689**	**0.0000**	**291.4788**

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	0.0201	0.8406	0.2474	3.8100e-003	0.1176	5.3700e-003	0.1230	0.0343	5.1400e-003	0.0395	0.0000	366.0722	366.0722	1.8000e-003	0.0553	382.6095
Worker	0.1412	0.0934	1.1061	3.3200e-003	0.3572	1.9100e-003	0.3591	0.0956	1.7600e-003	0.0973	0.0000	304.3481	304.3481	9.2700e-003	8.7400e-003	307.1834
Total	**0.1613**	**0.9340**	**1.3535**	**7.1300e-003**	**0.4748**	**7.2800e-003**	**0.4820**	**0.1299**	**6.9000e-003**	**0.1368**	**0.0000**	**670.4202**	**670.4202**	**0.0111**	**0.0641**	**689.7929**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0883	0.8066	0.9700	1.6200e-003		0.0368	0.0368		0.0346	0.0346	0.0000	139.1095	139.1095	0.0329	0.0000	139.9319
Total	**0.0883**	**0.8066**	**0.9700**	**1.6200e-003**		**0.0368**	**0.0368**		**0.0346**	**0.0346**	**0.0000**	**139.1095**	**139.1095**	**0.0329**	**0.0000**	**139.9319**

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	9.4000e-003	0.4037	0.1164	1.8000e-003	0.0603	2.6000e-003	0.0629	0.0174	2.4900e-003	0.0199	0.0000	172.9849	172.9849	8.3000e-004	0.0261	180.7900
Worker	0.0625	0.0394	0.4909	1.5400e-003	0.1859	8.6000e-004	0.1868	0.0494	7.9000e-004	0.0502	0.0000	141.0230	141.0230	3.9900e-003	3.8700e-003	142.2762
Total	**0.0719**	**0.4431**	**0.6073**	**3.3400e-003**	**0.2462**	**3.4600e-003**	**0.2497**	**0.0669**	**3.2800e-003**	**0.0701**	**0.0000**	**314.0079**	**314.0079**	**4.8200e-003**	**0.0300**	**323.0662**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

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	0.0883	0.8066	0.9700	1.6200e-003		0.0368	0.0368		0.0346	0.0346	0.0000	139.1093	139.1093	0.0329	0.0000	139.9317
Total	**0.0883**	**0.8066**	**0.9700**	**1.6200e-003**		**0.0368**	**0.0368**		**0.0346**	**0.0346**	**0.0000**	**139.1093**	**139.1093**	**0.0329**	**0.0000**	**139.9317**

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	9.4000e-003	0.4037	0.1164	1.8000e-003	0.0565	2.6000e-003	0.0591	0.0165	2.4900e-003	0.0190	0.0000	172.9849	172.9849	8.3000e-004	0.0261	180.7900
Worker	0.0625	0.0394	0.4909	1.5400e-003	0.1714	8.6000e-004	0.1723	0.0459	7.9000e-004	0.0467	0.0000	141.0230	141.0230	3.9900e-003	3.8700e-003	142.2762
Total	**0.0719**	**0.4431**	**0.6073**	**3.3400e-003**	**0.2279**	**3.4600e-003**	**0.2314**	**0.0624**	**3.2800e-003**	**0.0656**	**0.0000**	**314.0079**	**314.0079**	**4.8200e-003**	**0.0300**	**323.0662**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	0.0171					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0270**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1885**

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	4.0000e-004	2.5000e-004	3.1500e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9063	0.9063	3.0000e-005	2.0000e-005	0.9144
Total	**4.0000e-004**	**2.5000e-004**	**3.1500e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9063**	**0.9063**	**3.0000e-005**	**2.0000e-005**	**0.9144**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	0.0171					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0270**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1884**

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	4.0000e-004	2.5000e-004	3.1500e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.9063	0.9063	3.0000e-005	2.0000e-005	0.9144
Total	**4.0000e-004**	**2.5000e-004**	**3.1500e-003**	**1.0000e-005**	**1.1000e-003**	**1.0000e-005**	**1.1100e-003**	**2.9000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**0.9063**	**0.9063**	**3.0000e-005**	**2.0000e-005**	**0.9144**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.7442					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569
Total	**0.7460**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5569**

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	2.0900e-003	1.3200e-003	0.0164	5.0000e-005	6.2100e-003	3.0000e-005	6.2400e-003	1.6500e-003	3.0000e-005	1.6800e-003	0.0000	4.7129	4.7129	1.3000e-004	1.3000e-004	4.7547
Total	**2.0900e-003**	**1.3200e-003**	**0.0164**	**5.0000e-005**	**6.2100e-003**	**3.0000e-005**	**6.2400e-003**	**1.6500e-003**	**3.0000e-005**	**1.6800e-003**	**0.0000**	**4.7129**	**4.7129**	**1.3000e-004**	**1.3000e-004**	**4.7547**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2024

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	0.7442					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	**0.7460**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5568**

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	2.0900e-003	1.3200e-003	0.0164	5.0000e-005	5.7300e-003	3.0000e-005	5.7600e-003	1.5300e-003	3.0000e-005	1.5600e-003	0.0000	4.7129	4.7129	1.3000e-004	1.3000e-004	4.7547
Total	**2.0900e-003**	**1.3200e-003**	**0.0164**	**5.0000e-005**	**5.7300e-003**	**3.0000e-005**	**5.7600e-003**	**1.5300e-003**	**3.0000e-005**	**1.5600e-003**	**0.0000**	**4.7129**	**4.7129**	**1.3000e-004**	**1.3000e-004**	**4.7547**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.5926	3.5782	5.9378	0.0230	1.5132	0.0313	1.5445	0.4064	0.0297	0.4361	0.0000	2,168.8552	2,168.8552	0.0639	0.2256	2,237.6849
Unmitigated	0.5926	3.5782	5.9378	0.0230	1.5132	0.0313	1.5445	0.4064	0.0297	0.4361	0.0000	2,168.8552	2,168.8552	0.0639	0.2256	2,237.6849

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1,358.00	1,358.00	1358.00	3,964,696	3,964,696
General Office Building	0.00	0.00	0.00		
Total	1,358.00	1,358.00	1,358.00	3,964,696	3,964,696

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
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.536987	0.052416	0.169237	0.150872	0.026159	0.006241	0.012518	0.016886	0.000471	0.000325	0.023246	0.001119	0.003522
Unrefrigerated Warehouse-No Rail	0.439290	0.042880	0.138447	0.123423	0.021400	0.005106	0.008735	0.198822	0.000000	0.000000	0.019017	0.000000	0.002881
General Office Building	0.536987	0.052416	0.169237	0.150872	0.026159	0.006241	0.012518	0.016886	0.000471	0.000325	0.023246	0.001119	0.003522

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	174.6764	174.6764	0.0283	3.4300e-003	176.4036
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	174.6764	174.6764	0.0283	3.4300e-003	176.4036
NaturalGas Mitigated	0.0123	0.1118	0.0939	6.7000e-004		8.5000e-003	8.5000e-003		8.5000e-003	8.5000e-003	0.0000	121.6962	121.6962	2.3300e-003	2.2300e-003	122.4193
NaturalGas Unmitigated	0.0123	0.1118	0.0939	6.7000e-004		8.5000e-003	8.5000e-003		8.5000e-003	8.5000e-003	0.0000	121.6962	121.6962	2.3300e-003	2.2300e-003	122.4193

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
General Office Building	163000	8.8000e-004	7.9900e-003	6.7100e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	8.6983	8.6983	1.7000e-004	1.6000e-004	8.7500
Parking Lot	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
Unrefrigerated Warehouse-No Rail	2.1175e+006	0.0114	0.1038	0.0872	6.2000e-004		7.8900e-003	7.8900e-003		7.8900e-003	7.8900e-003	0.0000	112.9979	112.9979	2.1700e-003	2.0700e-003	113.6694
Total		**0.0123**	**0.1118**	**0.0939**	**6.7000e-004**		**8.5000e-003**	**8.5000e-003**		**8.5000e-003**	**8.5000e-003**	**0.0000**	**121.6962**	**121.6962**	**2.3400e-003**	**2.2300e-003**	**122.4193**

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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	163000	8.8000e-004	7.9900e-003	6.7100e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	8.6983	8.6983	1.7000e-004	1.6000e-004	8.7500
Parking Lot	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
Unrefrigerated Warehouse-No Rail	2.1175e+006	0.0114	0.1038	0.0872	6.2000e-004		7.8900e-003	7.8900e-003		7.8900e-003	7.8900e-003	0.0000	112.9979	112.9979	2.1700e-003	2.0700e-003	113.6694
Total		**0.0123**	**0.1118**	**0.0939**	**6.7000e-004**		**8.5000e-003**	**8.5000e-003**		**8.5000e-003**	**8.5000e-003**	**0.0000**	**121.6962**	**121.6962**	**2.3400e-003**	**2.2300e-003**	**122.4193**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	96600	8.9378	1.4500e-003	1.8000e-004	9.0262
Parking Lot	198808	18.3945	2.9800e-003	3.6000e-004	18.5763
Unrefrigerated Warehouse-No Rail	1.5925e+006	147.3441	0.0238	2.8900e-003	148.8011
Total		**174.6764**	**0.0283**	**3.4300e-003**	**176.4036**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	96600	8.9378	1.4500e-003	1.8000e-004	9.0262
Parking Lot	198808	18.3945	2.9800e-003	3.6000e-004	18.5763
Unrefrigerated Warehouse-No Rail	1.5925e+006	147.3441	0.0238	2.8900e-003	148.8011
Total		**174.6764**	**0.0283**	**3.4300e-003**	**176.4036**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Non-Residential Interior

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5174	3.0000e-005	3.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.6700e-003	6.6700e-003	2.0000e-005	0.0000	7.1000e-003
Unmitigated	1.5174	3.0000e-005	3.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.6700e-003	6.6700e-003	2.0000e-005	0.0000	7.1000e-003

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	0.0744					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4427					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.2000e-004	3.0000e-005	3.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.6700e-003	6.6700e-003	2.0000e-005	0.0000	7.1000e-003
Total	**1.5174**	**3.0000e-005**	**3.4200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**6.6700e-003**	**6.6700e-003**	**2.0000e-005**	**0.0000**	**7.1000e-003**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0744					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4427					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.2000e-004	3.0000e-005	3.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.6700e-003	6.6700e-003	2.0000e-005	0.0000	7.1000e-003
Total	**1.5174**	**3.0000e-005**	**3.4200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**6.6700e-003**	**6.6700e-003**	**2.0000e-005**	**0.0000**	**7.1000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	54.4532	2.1616	0.0516	123.8614
Unmitigated	68.0052	2.7020	0.0645	154.7648

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	1.77734 / 1.08934	1.8065	0.0581	1.3900e-003	3.6741
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	80.9375 / 0	66.1988	2.6439	0.0631	151.0907
Total		**68.0052**	**2.7020**	**0.0645**	**154.7648**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	1.42187 / 1.02289	1.4942	0.0465	1.1100e-003	2.9888
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	64.75 / 0	52.9590	2.1151	0.0505	120.8726
Total		**54.4532**	**2.1616**	**0.0516**	**123.8614**

8.0 Waste Detail

8.1 Mitigation Measures Waste

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	68.6718	4.0584	0.0000	170.1316
Unmitigated	68.6718	4.0584	0.0000	170.1316

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	9.3	1.8878	0.1116	0.0000	4.6770
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	329	66.7840	3.9468	0.0000	165.4546
Total		**68.6719**	**4.0584**	**0.0000**	**170.1316**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	9.3	1.8878	0.1116	0.0000	4.6770
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	329	66.7840	3.9468	0.0000	165.4546
Total		**68.6719**	**4.0584**	**0.0000**	**170.1316**

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

11.0 Vegetation

APPENDIX B: AIR TOXICS SCREENING ASSESSMENT

Source: EMFAC2021 (v1.0.1) Emission Rates
Region Type: County
Region: San Joaquin
Calendar Year: 2022
Season: Annual
Vehicle Classification: EMFAC202x Categories
Units: miles/day for CVMT and EVMT, g/mile for RUNEX, PMBW and PMTW, mph for Speed, kWh/mile for Energy Consumption, gallon/mile for Fuel Consumption. PHEV calculated based on total VMT.

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Total VMT	**PM10_RUNEX**
San Joaquin	2022	T7 Tractor Class 8	Aggregate	10	Diesel	1683.346604	**0.014003507**
San Joaquin	2022	T7 Tractor Class 8	Aggregate	55	Diesel	20401.71991	**0.02163113**

Mobile Truck Emissions

On-site Pickup, Loading, and Return for Storage

pounds per gram: 0.002205

hours per day: 24

Line Source Volume #1:

Assumptions:	Factor:		Source:
1. Total travel distance per truck trip (one-way):	0.25	miles	As measured by Google Maps (conservative estimate)
2. # of trucks trips per day:	270	trips	Fehr & Peers, 2022
3. PM10 Mobile Emissions Factor:	**0.014003507**	g/mile	EMFAC2021
(San Joaquin County, 10 MPH, Year 2022, T7 Tractor Class 8)			

Therefore:

Total daily PM10 mobile emissions generated by the project along this line volume source:

0.945236723	**g/day-all vehicles**	
0.002083888	lbs/day-all vehicles	
0.760619041	**lbs/year-all vehicles**	0.743716

Max Hr Emissions

270.00 Peak hour truck trips (assumes all trips occur in the same hour, for a highly conservative estimate)

0.945236723	**g/hr-all vehicles**
0.002083888	**lbs/hr-all vehicles**

Mobile Truck Emissions

Off-site (0.25 miles distance off-site modeled per guidance as provided by the SJVAPCD)

pounds per gram: 0.002205
hours per day: 24

Line Source Volume #1:

Assumptions:	Factor:		Source:
1. Total travel distance per truck trip (one-day):	0.25	miles	SJVAPCD recommendation (i.e. to model off-site truck travel up to 0.25 miles from the Project site)
2. # of trucks trips per day:	270	trips	Fehr & Peers, 2022
3. PM10 Mobile Emissions Factor: (San Joaquin County, 55 MPH, Year 2022, T7 Tractor Class 8)	**0.02163113**	g/mile	EMFAC2021

Therefore:

Total daily PM10 mobile emissions generated by the project along this line volume source:

1.460101275	**g/day-all vehicles**	
0.003218968	lbs/day-all vehicles	
1.174923493	**lbs/year-all vehicles**	0.574407

Max Hr Emissions

270.00 Peak hour truck trips (assumes all trips occur in the same hour, for a highly conservative estimate)

1.460101275	**g/hr-all vehicles**
0.003218968	**lbs/hr-all vehicles**

Truck Idling Emission Rates

Idling Emission Rates taken from tables 3.2-41 and 42, of the EMFAC2014 Volume III - Technical Documentation Guidebook:
http://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf

pounds per gram: 0.00220462

Idling Emissions:

Table 3.2-40: Revised HHD Diesel Truck Low Idle Emission Rates (after 2009)	PM10	**0.001**	g/hr-truck	
Table 3.2-41: High Idle Emissions Rates for Summer (2009 and later)	PM10	**0.003**	g/hr-truck	Note: the following calculation uses an average of the summer and
Table 3.2-42: High Idle Emissions Rates for Winter (2009 and later)	PM10	**0.004**	g/hr-truck	winter high idle emissions rates for the emission factor calcs.
		0.000291667	g/5 minutes-truck	Note: Trucks are equiped with 5-min auto shutoff.
		0.000291667	g/day-truck	
		24	hours in day	
		135	# of trucks/day	Source: Fehr & Peers, 2022
		2	Idle Points per truck/day	Note: Assumption
Therefore:		0.07875	g/day-all trucks	
		28.74375	g/year-all trucks	
		0.063369046	lbs/year-all trucks	

Max Hr Emissions

\# Peak hour truck trips (assumes all trips occur in the same hour, for a highly conservative estimate)

0.07875	**g/hr-all vehicles**
0.0001736	**lbs/hr-all vehicles**

Construction - DPM Exhaust Emissions

pounds per ton: 2000

Note: DPM Exhaust Emissions taken from CalEEMod

CalEEMod - Maximum Annual Construction Emissions

Exhaust PM2.5 tons/year		**Exhaust PM2.5 pounds/year**		
	0.0958		191.6	
Total		Amoritized over 70 Years		
		2.737142857	**lbs/year**	2.737143

Name **Prioritization Calculator**

Applicability	Use to provide a Prioritization score based on the emission potency method. Entries required in yellow areas, output in gray areas.		
Author or updater	Matthew Cegielski	*Last Update*	November 2, 2020
Facility:			
ID#:			
Project #:			
Unit and Process#			

Operating Hours hr/yr	8,760.00			
Receptor Proximity and Proximity Factors	**Cancer Score**	**Chronic Score**	**Acute Score**	**Max Score**
0< R<100 1.000	4.62E+00	6.85E-03	0.00E+00	4.62E+00
100≤R<250 0.250	1.15E+00	1.71E-03	0.00E+00	1.15E+00
250≤R<500 0.040	1.85E-01	2.74E-04	0.00E+00	1.85E-01
500≤R<1000 0.011	5.08E-02	7.53E-05	0.00E+00	5.08E-02
1000≤R<1500 0.003	1.39E-02	2.05E-05	0.00E+00	1.39E-02
1500≤R<2000 0.002	9.23E-03	1.37E-05	0.00E+00	9.23E-03
2000<R 0.001	4.62E-03	6.85E-06	0.00E+00	4.62E-03

Receptor proximity is in meters. Priortization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.

0

Enter the unit's CAS# of the substances emitted and their amounts.

Prioritzation score for each substance generated below. Totals on last row.

Substance	**CAS#**	**Annual Emissions (lbs/yr)**	**Maximum Hourly (lbs/hr)**	**Average Hourly (lbs/hr)**	**Cancer**	**Chronic**	**Acute**
Diesel engine exhaust, particulate matter (Diesel PM)	**9901**	1.99891158	0.00547647	2.28E-04	4.62E+00	6.85E-03	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				Totals	**4.62E+00**	**6.85E-03**	**0.00E+00**

Use the substance dropdown list in the CAS# Finder to locate CAS# of substances.

Substance	CAS# Finder
Diesel engine exhaust, particulate matter (Diesel PM)	9901

Name **Prioritization Calculator**

Applicability	Use to provide a Prioritization score based on the emission potency method. Entries required in yellow areas, output in gray areas.		
Author or updater	Matthew Cegielski	*Last Update*	November 2, 2020
Facility:			
ID#:			
Project #:			
Unit and Process#			

Operating Hours hr/yr	8,760.00			
Receptor Proximity and Proximity Factors	**Cancer Score**	**Chronic Score**	**Acute Score**	**Max Score**
0< R<100 1.000	6.32E+00	9.37E-03	0.00E+00	6.32E+00
100≤R<250 0.250	1.58E+00	2.34E-03	0.00E+00	1.58E+00
250≤R<500 0.040	2.53E-01	3.75E-04	0.00E+00	2.53E-01
500≤R<1000 0.011	6.96E-02	1.03E-04	0.00E+00	6.96E-02
1000≤R<1500 0.003	1.90E-02	2.81E-05	0.00E+00	1.90E-02
1500≤R<2000 0.002	1.26E-02	1.87E-05	0.00E+00	1.26E-02
2000<R 0.001	6.32E-03	9.37E-06	0.00E+00	6.32E-03

Receptor proximity is in meters. Priortization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.

Use the substance dropdown list in the CAS# Finder to locate CAS# of substances.

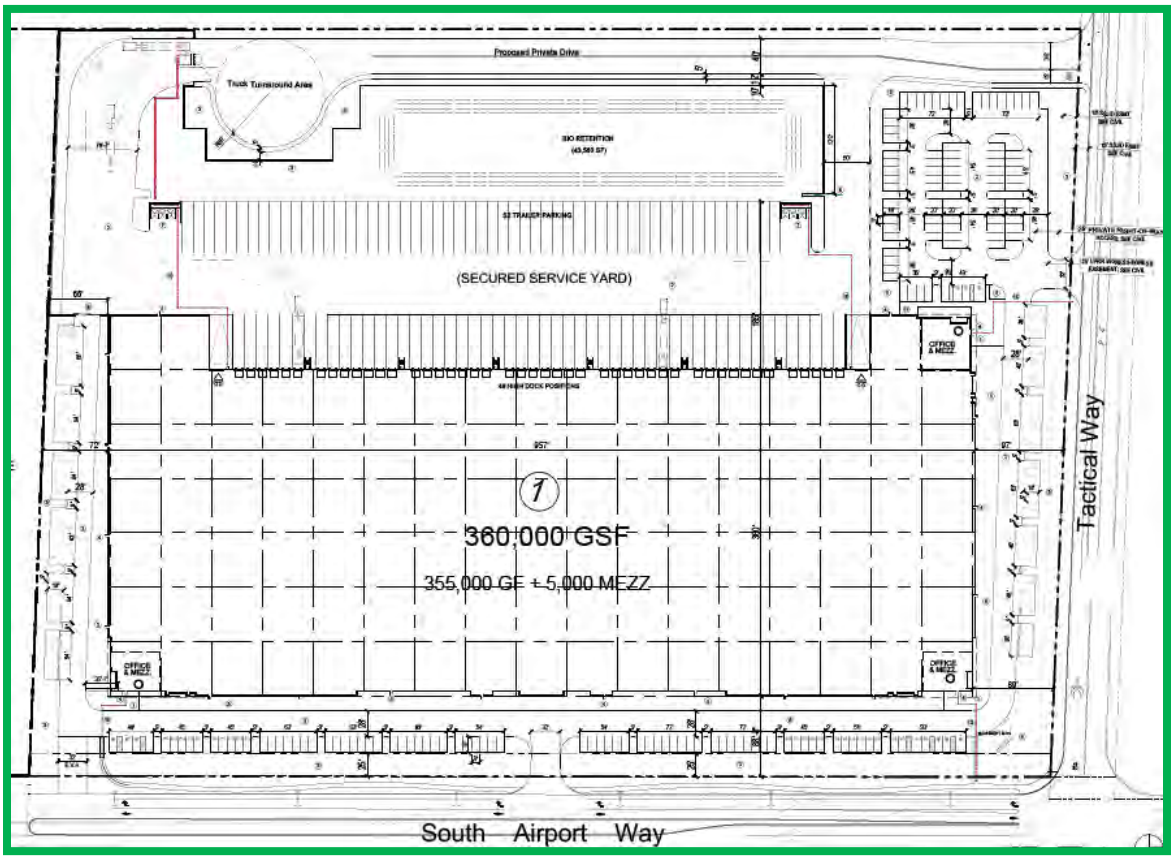
Substance	CAS# Finder
Diesel engine exhaust, particulate matter (Diesel PM)	9901

0	Enter the unit's CAS# of the substances emitted and their amounts.				Prioritzation score for each substance generated below. Totals on last row.		
Substance	**CAS#**	**Annual Emissions (lbs/yr)**	**Maximum Hourly (lbs/hr)**	**Average Hourly (lbs/hr)**	**Cancer**	**Chronic**	**Acute**
Diesel engine exhaust, particulate matter (Diesel PM)	**9901**	2.737142857	0.00547647	3.12E-04	6.32E+00	9.37E-03	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				Totals	**6.32E+00**	**9.37E-03**	**0.00E+00**

APPENDIX B: TRAFFIC IMPACT ANALYSIS

TRANSPORTATION IMPACT ANALYSIS REPORT

FOR THE
AIRPORT BUSINESS CENTRE NORTH PROJECT
AT 3157 N. AIRPORT WAY
IN MANTECA, CA



Prepared for
De Novo Planning Group
City of Manteca

Prepared by
Fehr & Peers
Transportation Consultants

September 28, 2022

FEHR PEERS

The Fountains in Roseville 1013 Galleria Blvd. Suite 255 | Roseville, CA 95678 (916) 773-1900 Fax (916) 773-2015
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INTRODUCTION

This report documents the results of the Transportation Impact Analysis (TIA) conducted for the proposed Airport Business Centre North Project located at 3157 N. Airport Way. This TIA was prepared under contract to the City of Manteca Community Development Department and in coordination with the land use and environmental DeNovo Planning Group.

The proposed project would construct an industrial warehousing / distribution building on the south-east corner of the Tactical Way / Airport Way intersection in the Northwest Airport Way Master Plan Area. The proposed project would be located approximately 0.85 mile (4,500 feet) south of the Roth Road / Airport Way signalized intersection, and approximately 1.20 miles (6,300 feet) north of the Lathrop Road / Airport Way signalized intersection.

The proposed Airport Business Centre North Project would encompass 21.3 acres and would provide the following three access driveways:

- One driveway on Airport Way that will only be used by employees;
- A second driveway on Tactical Way for employees; and
- A third driveway on Tactical Way (with a sliding gate) for trucks.

The Airport Business Centre North Project Site will provide a total of 242 automobile parking stalls located on the south, west, and north sides of the distribution building. On the west side of the Airport Business Centre North building, a total of 93 truck trailer parking stalls and 46 truck loading docks will be provided. The proposed project site would connect with the existing Tactical Drive, which would connect with the existing Intermodal Way, providing the primary access route for trucks to access the project site.

It should be noted that only employee traffic will be allowed to use Airport Way to access the parking lots located along Airport Way and Tactical Way. The project site is being constructed such that all truck traffic (delivery, California, and Surface Transportation Assistance Act – STAA) will be required to use Intermodal Way to and from the Interstate 5 / Roth Road interchange; thereby reducing the amount of project-generated traffic that would use Airport Way.

In addition to the proposed Airport Business Centre North truck traffic restriction on Airport Way, a separate Roth Road Corridor Study is currently being prepared by the San Joaquin Council of Government (SJCOG) in coordination with the City of Lathrop, City of Manteca, San Joaquin County and Caltrans District 10 (Stockton, CA). The purpose of the Roth Road Corridor Study is to develop a comprehensive plan for improvements from Interstate 5 (I-5) to the west and Airport Way to the east. This plan includes widening Roth Road west of Intermodal Way, realigning Harland Road, and making improvements at the I-5 / Roth Road interchange to serve projected traffic (cars and trucks) from existing and future land uses along the entire Roth Road Corridor.

PROJECT TRIP GENERATION

Table presents the trip generation rates (Table 1), projected trips generated by the proposed Airport Business Centre North Project for Weekday Daily, AM Peak Hour, and PM Peak Hour Conditions for All Vehicles (Table 2), Employee Vehicles – Passenger Cars, SUV and Light Duty Trucks (Table 3), and Delivery CA Legal / STAA Trucks ((Table 4). Trips generated are based on blended trip rates from the *Trip Generation Manual 11th Edition* (Institute of Transportation Engineers, 2021) and the City of Manteca Travel Demand Forecasting (TDF) Model being developed for the General Plan 2020/2040 Update.

Table 1: Airport Business Centre North Project (3157 N. Airport Way) Trip Generation Rates								
Land Use (ITE Code)	Gross Floor Area (Sq. Ft.)	Vehicle Trip Rate[1]						
		Daily	AM			PM		
		Total	Total	In	Out	Total	In	Out
Warehousing Industrial (Blended Trip Rate)	360,000 Square Feet	3.77	0.39	0.27	0.12	0.39	0.13	0.25

Notes:
[1] Trip rates are based on the *Trip Generation Manual 11th Edition* (Institute of Transportation Engineers 2021).
Source: Fehr & Peers, 2022

Table 2: Airport Business Centre North Project (3157 N. Airport Way) Trip Generation (All Vehicles)								
Project	Gross Floor Area (Sq. Ft.)	Daily (All Vehicles)	AM Peak Hour (All Vehicles)			PM Peak Hour (All Vehicles)		
		Total	Total	In	Out	Total	In	Out
Airport Business Center North Project	360,000 Square Feet	1,358	139	97	42	139	48	91

Source: Fehr & Peers, 2022

Table 3: Airport Business Centre North Project (3157 N. Airport Way) Trip Generation (Employee Vehicles – Passenger Cars, SUV and Light Duty Trucks)								
Project	Gross Floor Area (Sq. Ft.)	Daily (Employee Vehicles)	AM Peak Hour (Employee Vehicles)			PM Peak Hour (Employee Vehicles)		
		Total	Total	In	Out	Total	In	Out
Airport Business Center North Project	360,000 Square Feet	1,088	116	93	23	124	36	88

Source: Fehr & Peers, 2022

Table 4: Airport Business Centre North Project (3157 N. Airport Way) Trip Generation – Trucks (Delivery CA Legal and STAA)								
Project	Gross Floor Area (Sq. Ft.)	Daily (CA Legal and STAA Trucks)	AM Peak Hour (CA Legal and STAA Trucks)			PM Peak Hour (CA Legal and STAA Trucks)		
		Total	Total	In	Out	Total	In	Out
Airport Business Center North Project	360,000 Square Feet	270	23	4	19	15	12	3

Source: Fehr & Peers, 2022

SENATE BILL 743 AND VEHICLES MILES TRAVELED (VMT)

SB 743 created several statewide changes to the evaluation of transportation and traffic impacts under CEQA. First, it directs OPR to amend the CEQA Guidelines to establish new metrics for determining the significance of transportation impacts of projects within transit priority areas (TPAs) and allows OPR to extend use of the new metrics beyond TPAs. The California Natural Resources Agency certified and adopted the amended CEQA Guidelines in December 2018. In the amended CEQA Guidelines, OPR selected Vehicle Miles Traveled (VMT) as the primary transportation impact metric to be applied throughout the State of California.

The amended CEQA Guidelines state that "generally, VMT is the most appropriate measure of transportation impacts" and the provisions requiring the use of VMT shall apply statewide as of July 1, 2020. The amended CEQA Guidelines further state that land use "projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less-than-significant transportation impact."

Second, SB 743 establishes that aesthetic and parking impacts of a residential, mixed-use residential, or employment center projects on an infill site within a TPA shall not be considered significant impacts on the environment.

Third, SB 743 added section 21099 to the Public Resources Code, which states that automobile delay, as described by level of service (LOS) or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment upon certification of the CEQA Guidelines by the Natural Resources Agency. Since the amended CEQA Guidelines were certified in December 2018, LOS or similar measures of vehicular capacity or traffic congestion are not considered a significant impact on the environment under CEQA.

Lastly, SB 743 establishes a new CEQA exemption for a residential, mixed-use, and employment center project a) within a TPA, b) consistent with a specific plan for which an EIR has been certified, and c) consistent with an SCS. This exemption requires further review if the project or circumstances changes significantly.

Technical Advisory on Evaluating Transportation Impacts

To aid in SB 743 implementation, in December 2018 OPR released a *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory). The Technical Advisory provides advice and recommendations to CEQA lead agencies on how to implement the SB 743 changes. This includes technical recommendations regarding the assessment of VMT, thresholds of significance, VMT mitigation measures, and screening thresholds for certain land use projects. Lead agencies may consider and use these recommendations at their discretion and with the provision of substantial evidence to support alternative approaches.

The Technical Advisory identifies "screening thresholds" to quickly identify when a project should be expected to cause a less-than-significant impact without conducting a detailed study. The Technical Advisory suggests that projects meeting one or more of the following criteria should be expected to have a less-than-significant impact on VMT.

Small projects – projects consistent with a SCS and local general plan that generate or attract fewer than 110 trips per day.

Projects near major transit stops – certain projects (residential, retail, office, or a mix of these uses) proposed within ½ mile of an existing major transit stop or an existing stop along a high-quality transit corridor.

Affordable residential development – a project consisting of a high percentage of affordable housing may be a basis to find a less-than-significant impact on VMT.

Local-serving retail – local-serving retail development tends to shorten trips and reduce VMT. The Technical Advisory encourages lead agencies to decide when a project will likely be local-serving, but generally acknowledges that retail development including stores larger than 50,000 square feet might be considered regional-serving. The Technical Advisory suggests lead agencies analyze whether regional-serving retail would increase or decrease VMT (i.e., not presume a less-than-significant).

Projects in low VMT areas – residential and office projects that incorporate similar features (i.e., density, mix of uses, transit accessibility) as existing development in areas with low VMT will tend to exhibit similarly low VMT.

The Technical Advisory also identifies recommended numeric VMT thresholds for residential, office, and retail projects, as described below.

Residential development that would generate vehicle travel exceeding 15 percent below existing (baseline) residential VMT per capita may indicate a significant transportation impact. Existing VMT per capita may be measured as a regional VMT per capita or as city VMT per capita.

Office projects that would generate vehicle travel exceeding 15 percent below existing regional VMT per employee may indicate a significant transportation impact.

Retail projects (and other non-residential/non-office projects) that results in a net increase in total VMT may indicate a significant transportation impact.

For mixed-use projects, the Technical Advisory suggests evaluating each component independently and applying the significance threshold for each project type included. Alternatively, the lead agency may consider only the project's dominant use.

The Technical Advisory also provides guidance on impacts to transit. Specifically, the Technical Advisory suggests that lead agencies generally should not treat the addition of new transit users as an adverse impact. As an example, the Technical Advisory suggests that "an infill development may add riders to transit systems and the additional boarding and alighting may slow transit vehicles, but it also adds destinations, improving proximity and accessibility. Such development also improves regional vehicle flow by adding less vehicle travel onto the regional network."

VMT-Focused Transportation Impact Study Guide

On May 20, 2020, the VMT-Focused Transportation Impact Study Guide (TISG) was adopted. The TISG provides guidance on how Caltrans will review land use projects, with focus on VMT analysis and supporting state land use goals, state planning priorities, and GHG emission reduction goals; as well as identifying land use projects' possible transportation impacts to the State Highway System and potential non-capacity increasing mitigation measures.

The TISG emphasizes that VMT analysis is Caltrans' primary review focus, and references OPR's Technical Advisory as a basis for the guidance in the TISG. Notably, the TISG recommends the use of the recommended thresholds in the Technical Advisory for land use projects. The TISG also references the Technical Advisory for screening thresholds that would identify projects and areas presumed to have a less-than-significant transportation impact. Caltrans supports streamlining for projects that meet these screening thresholds because they help achieve VMT reduction and mode shift goals.

AIRPORT BUSINESS CENTRE NORTH VEHICLES MILES TRAVELED ANALYSIS

The proposed Airport Business Centre North Project does not qualify as a small project for screening purposes, and it is not located in a low VMT area. Therefore, consistent with the discussion of SB 743 provided above vehicle travel was evaluated using VMT as the primary metric. The following describes the baseline VMT levels for industrial land uses in the City of Manteca. The Baseline VMT and Cumulative Project VMT was developed using the City of Manteca travel demand model that was derived from the San Joaquin Council of Government's (SJCOG) Regional Travel Demand Model. The model was developed in 2020 and calibrated to adjusted pre COVID-19 traffic counts.

Roadway improvements and land use projections consistent with the SJCOG Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), City of Manteca General Plan, and City of Lathrop General Plan were added to the Cumulative Conditions Model.

A model-wide analysis was preformed to obtain daily trips and travel distance for all Industrial Transportation Analysis Zones (TAZs), and the product of daily trips and travel distance was summed up to obtain VMT estimates. It should be noted that the VMT analysis was based on Interconnect Way being constructed to provide access to and from Intermodal Way, Roth Road and the I-5 / Roth Road interchange for project-generated California Legal and STAA Truck traffic.

Table 5 presents modeled Baseline Citywide from the Manteca General Plan EIR and Cumulative With Airport Business Centre North Project VMT per industrial employee. According to the Manteca General Plan EIR, the 2019 Baseline VMT per industrial employee is 75.3. The results of the VMT analysis showed that the proposed Airport Business Centre North Project will result in a decrease in VMT when compared to baseline citywide, from 75.3 to 74.8 vehicle miles per employee.

This represents a relatively flat 0.6% decrease when compared to baseline city-wide average. It should be noted that the construction of the Airport Business Centre North Project will improve the jobs to housing balance in the City of Manteca and provide an overall benefit to reducing VMT per employee with fewer residents expected to leave the City for employment. This will result fuel consumption and greenhouse gas emissions reductions.

Table 5: Airport Business Centre North Project Vehicle Miles Traveled (VMT) Analysis

Scenario	VMT Per Industrial Employee	VMT Reduction Per Industrial Employee	Percentage Reduction Per Industrial Employee
Baseline Citywide	75.3		
Cumulative With Airport Business Centre North Project	74.8	- 0.5	-0.6%

Note: Citywide VMT includes All industrial land Uses in the City of Manteca
Source: City of Manteca Travel Demand Model - Fehr & Peers, 2022

The updated General Plan includes policies designed to reduce vehicle travel and vehicle miles traveled. The Circulation Element (Chapter 3.14) addresses providing adequate pedestrian, bicycle, and transit facilities and opportunities, promoting non-vehicle travel modes, requiring development projects that accommodate or employ fifty (50) or more employees to implement Transportation Demand Management (TDM) programs, and ensuring regional coordination on trip and VMT reduction efforts. General Plan policies and actions that contribute to VMT reductions are identified below. These policies and actions minimize VMT impacts to the greatest extent feasible.

Additionally, it should be noted that, as discussed in the Regulatory Setting, Governors Executive Order N-79-20 requires that 100 percent of in-state sales of new passenger cars and trucks be zero-emission by 2035. It shall be a further goal of the State that 100 percent of medium- and heavy-duty vehicles in the State be zero-emission by 2045 for all operations, where feasible, and by 2035 for drayage trucks. It shall be further a goal of the State to transition to 100 percent zero-emission off-road vehicles and equipment by 2035, where feasible. Accordingly, the City of Manteca aims to develop a Zero Emissions Vehicle Market Development Strategy that ensures expeditious implementation of the systems of policies, programs and regulations necessary to achieve the order.

ROADWAY SEGMENT LEVEL OF SERVICE ANALYSIS – EXISTING CONDITIONS

In addition to Vehicle Miles Traveled, the secondary and non-CEQA measure analyzed for the transportation analysis is segment level of service for Existing (Year 2022) and Existing With Airport Business Centre North Project Weekday Average Daily Traffic (ADT) Conditions. It should be noted that the Existing volumes were developed using traffic counts completed in Fall 2021 and adjusted up to represent Year 2022 ADT volumes.

Table 6 presents the existing weekday ADT volumes for twenty-four (24) study roadway segments in the project study area. The Project Trip Generation analysis showed that on a daily basis, the proposed Airport Business Centre North Project would add a total of 1,358 vehicles to the surrounding transportation network, consisting of 1,088 employee vehicles, and 270 California Legal or STAA Trucks. On a typical weekday, the proposed Airport Business Centre North Project would add 270 California Legal or STAA Trucks on Intermodal Way between Roth Road and Interconnect Drive.

The results of the roadway segment level of service analysis showed that the proposed Airport Business Centre North Project would not result in any roadways operating below acceptable level of service thresholds on the surrounding transportation network. All twenty-four roadway segments would continue to operate at acceptable Level of Service C or D under Existing With Project Conditions.

Table 6: Existing Level of Service Analysis – No Project versus With Airport Business Centre North Project Average Daily Traffic Volumes

Roadway Segment - Location	Existing (No Project)		Existing With Project		With Project - No Project	
	ADT Volume	LOS	ADT Volume	LOS	ADT Volume	Percentage Change
1. Roth Road – Between Intermodal Way and Airport Way	9,700	D	9,863	D	163	1.7 %
2. Roth Road – Between Intermodal Way and McKinley Avenue	9,600	D	9,925	D	325	3.4 %
3. Roth Road – Between McKinley Avenue and Harlan Road	9,800	D	10,125	D	325	3.3 %
4. Roth Road – Between Harlan Road and NB I-5 Off/On-Ramps	14,800	D	15,125	D	325	2.2 %
5. Roth Road – Between NB I-5 Off/On-Ramps and SB I-5 Off/On-Ramps	8,500	C	8,608	C	108	1.3 %
6. Airport Way – Between French Camp Road and Roth Road	7,400	C	7,563	C	163	2.2 %

Note: LOS = Level of Service based on Segment Level of Service Thresholds from Manteca General Plan Update and Lathrop General Plan Update

Source: Fehr & Peers, 2022

Table 6 (Continued): Existing Level of Service Analysis – No Project versus With Airport Business Centre North Project Average Daily Traffic Volumes						
Roadway Segment - Location	Existing (No Project)		Existing With Project		With Project - No Project	
	ADT Volume	LOS	ADT Volume	LOS	ADT Volume	Percentage Change
7. Airport Way – Between Roth Road and Lovelace Road	6,700	C	6,918	C	218	3.3 %
8. Airport Way – Between Lovelace Road and Daisywood Drive	7,000	C	7,218	C	218	3.1 %
9. Airport Way – Between Daisywood Drive and Pinnacle Drive	7,500	D	8,370	D	870	11.6 %
10. Airport Way – Between Pinnacle Drive and Lathrop Road	8,800	D	9,670	D	870	9.9 %
11. Airport Way – Between Lathrop Road and Northgate Drive	9,800	D	10,181	D	381	3.9 %
12. Airport Way – Between Northgate Drive and Louise Avenue	10,500	D	10,881	D	381	3.6 %
13. Airport Way – Between Louise Avenue and Crom Avenue	14,800	D	15,181	D	381	2.6 %
14. Airport Way – Between Crom Avenue and Yosemite Avenue	15,600	D	15,981	D	381	2.4 %
15. Lathrop Road – Between Union Road and Airport Way	16,700	D	16,972	D	272	1.6 %
16. Lathrop Road – Between Airport Way and McKinley Avenue	21,400	D	21,618	D	218	1.0 %
17. Lathrop Road – Between McKinley Avenue and 5th Street	21,000	D	21,196	D	196	0.9 %
18. Lathrop Road – Between 5th Street and Harlan Road	20,600	D	20,796	D	196	1.0 %
19. Lathrop Road – Between Harlan Road and NB I-5 Off/On-Ramps	24,500	D	24,696	D	196	0.8 %
20. Lathrop Road – Between NB I-5 Off /On-Ramps and SB I-5 Off/On-Ramps	16,200	C	16,298	C	98	0.6 %
21. Spartan Way – Between SB I-5 Off/On -Ramps and Golden Valley Parkway	9,200	C	9,222	C	22	0.2 %
22. Intermodal Way – Between Roth Road and 5.11 Tactical Building	1,650	C	1,920	C	270	16.4 %
23. Intermodal Way – Between 5.11 Tactical Building and Tactical Way	950	C	1,220	C	270	28.4 %
24. Tactical Way – Between Airport Way and Intermodal Way	135	C	189	C	54	40.0 %

Note: LOS = Level of Service based on Segment Level of Service Thresholds from Manteca General Plan Update and Lathrop General Plan Update

Source: Fehr & Peers, 2022

ROADWAY SEGMENT LEVEL OF SERVICE ANALYSIS – CUMULATIVE CONDITIONS

In addition to Vehicle Miles Traveled, the secondary measure analyzed for the transportation analysis was segment level of service for Cumulative No Project and Cumulative With Airport Business Centre North Project Weekday Average Daily Traffic (ADT) Conditions. **Table 7** presents the projected ADT volumes for twenty-four (24) study roadway segments in the project study area using the City of Manteca / City of Lathrop Travel Demand Forecasting (TDF) Model.

The Project Trip Generation analysis showed that on a daily basis, the proposed Airport Business Centre North Project would add a total of 1,358 vehicles to the surrounding transportation network, consisting of 1,088 employee vehicles, and 270 California Legal or STAA Trucks. On a typical weekday, the proposed Airport Business Centre North Project would add 270 California Legal or STAA Trucks on Intermodal Way between Roth Road and Interconnect Drive.

The results of the roadway segment level of service analysis showed that the proposed Airport Business Centre North Project would not result in any roadways operating below acceptable level of service thresholds on the surrounding transportation network. All twenty-four roadway segments would continue to operate at acceptable Level of Service C or D under Existing With Project Conditions.

Table 7: Cumulative Level of Service Analysis – No Project versus With Airport Business Centre North Project Average Daily Traffic Volumes

Roadway Segment - Location	No Project		With Project		With Project - No Project	
	ADT Volume	LOS	ADT Volume	LOS	ADT Volume	Percentage Change
1. Roth Road – Between Intermodal Way and Airport Way	17,790	D	17,953	D	163	0.9 %
2. Roth Road – Between Intermodal Way and McKinley Avenue	17,420	D	17,745	D	325	1.9 %
3. Roth Road – Between McKinley Avenue and Harlan Road	19,380	D	19,705	D	325	1.7 %
4. Roth Road – Between Harlan Road and NB I-5 Off/On-Ramps	24,600	D	24,925	D	325	1.3 %
5. Roth Road – Between NB I-5 Off/On-Ramps and SB I-5 Off/On-Ramps	32,610	D	32,718	D	108	0.3 %
6. Airport Way – Between French Camp Road and Roth Road	17,640	C	17,803	C	163	0.9 %
7. Airport Way – Between Roth Road and Lovelace Road	19,800	C	20,018	C	218	1.1 %
8. Airport Way – Between Lovelace Road and Daisywood Drive	16,010	C	16,228	C	218	1.4 %
9. Airport Way – Between Daisywood Drive and Pinnacle Drive	15,980	C	16,850	C	870	5.4 %

Note: LOS = Level of Service based on Segment Level of Service Thresholds from Manteca General Plan Update and Lathrop General Plan Update

Source: Fehr & Peers, 2022

Table 7 (Continued): Cumulative Level of Service Analysis – No Project versus With Airport Business Centre North Project Average Daily Traffic Volumes						
Roadway Segment - Location	No Project		With Project		With Project - No Project	
	ADT Volume	LOS	ADT Volume	LOS	ADT Volume	Percentage Change
10. Airport Way – Between Pinnacle Drive and Lathrop Road	24,980	D	25,850	D	870	3.5 %
11. Airport Way – Between Lathrop Road and Northgate Drive	22,190	D	22,571	D	381	1.7 %
12. Airport Way – Between Northgate Drive and Louise Avenue	20,840	D	21,221	D	381	1.8 %
13. Airport Way – Between Louise Avenue and Crom Avenue	23,300	D	23,681	D	381	1.6 %
14. Airport Way – Between Crom Avenue and Yosemite Avenue	23,180	D	23,561	D	381	1.6 %
15. Lathrop Road – Between Union Road and Airport Way	21,650	D	21,922	D	272	1.3 %
16. Lathrop Road – Between Airport Way and McKinley Avenue	24,460	D	24,678	D	218	0.9 %
17. Lathrop Road – Between McKinley Avenue and 5th Street	26,030	D	26,226	D	196	0.8 %
18. Lathrop Road – Between 5th Street and Harlan Road	25,410	D	25,606	D	196	0.8 %
19. Lathrop Road – Between Harlan Road and NB I-5 Off/On-Ramps	35,350	D	35,546	D	196	0.6 %
20. Lathrop Road – Between NB I-5 Off /On-Ramps and SB I-5 Off/On-Ramps	39,330	D	39,428	D	98	0.2 %
21. Spartan Way – Between SB I-5 Off/On -Ramps and Golden Valley Parkway	47,830	D	47,852	D	22	0.1 %
22. Intermodal Way – Between Roth Road and 5.11 Tactical Building	2,380	C	2,650	C	270	11.3 %
23. Intermodal Way – Between 5.11 Tactical Building and Tactical Way	1,780	C	2,050	C	270	15.2 %
24. Tactical Way – Between Airport Way and Intermodal Way	225	C	279	C	54	24.0 %

Note: LOS = Level of Service based on Segment Level of Service Thresholds from Manteca General Plan Update and Lathrop General Plan Update
Source: Fehr & Peers, 2022

INTERSECTION LEVEL OF SERVICE ANALYSIS – EXISTING CONDITIONS

The tertiary and non-CEQA measure analyzed for the transportation analysis is intersection level of service for Existing (Year 2022) and Existing With Airport Business Centre North Project Weekday AM and PM Peak Hour Conditions. It should be noted that the Existing volumes were developed using traffic counts completed in Fall 2021 and adjusted up to represent Year 2022 ADT volumes.

Table 8 presents the existing AM and PM peak hour intersection level of service for the fourteen (14) study intersections in the project study area. The Project Trip Generation analysis showed that during the AM peak hour, the proposed Airport Business Centre North Project would add a total of 96 vehicles to the surrounding transportation network, consisting of 53 employee vehicles, and 38 California Legal or STAA Trucks. During the PM peak hour, the proposed Airport Business Centre North Project would add a total of 78 vehicles to the surrounding transportation network, consisting of 57 employee vehicles, and 8 California Legal or STAA Trucks.

Table 8: Existing Level of Service Analysis – No Project versus With Airport Business Centre North Project Weekday AM and PM Peak Hours

Intersection (Control)	Existing (No Project)		Existing With Project	
	Delay AM(PM)	LOS AM(PM)	Delay AM(PM)	LOS AM(PM)
1. Roth Road / Airport Way (Signal)	12.0 (13.1)	B (B)	15.6 (15.9)	B (B)
2. Roth Road / Intermodal Way (Signal)	8.5 (9.2)	A (A)	9.5 (9.9)	A (A)
3. Roth Road / I-5 SB Ramps (SSSC)	18.5 (22.1)	C (C)	22.5 (24.7)	C (C)
4. Roth Road / I-5 NB Ramps (SSSC)	13.1 (15.7)	B (C)	14.9 (17.1)	B (C)
5. Airport Way / Lovelace Road (Signal)	9.7 (9.0)	A (A)	10.4 (9.9)	B (A)
6. Airport Way / Daisywood Drive (Signal)	6.7 (5.8)	A (A)	7.5 (6.7)	A (A)
7. Airport Way / Lathrop Road (Signal)	26.6 (27.0)	C (C)	29.4 (30.2)	C (C)
8. Airport Way / Louise Avenue (Signal)	28.5 (29.6)	C (C)	30.2 (31.4)	C (C)
9. Lathrop Road / I-5 SB Ramps (Signal)	14.4 (17.8)	B (B)	16.8 (19.1)	B (B)
10. Lathrop Road / I-5 NB Ramps (Signal)	13.1 (17.4)	B (B)	14.8 (19.6)	B (B)
11. Lathrop Road / Union Road (Signal)	31.7 (30.8)	C (C)	32.7 (32.8)	C (C)
12. Lathrop Road / SR 99 SB Ramps / Main Street (Signal)	21.1 (24.0)	C (C)	22.5 (25.5)	C (C)
13. Lathrop Road / SR 99 NB Ramps (Signal)	10.1 (9.9)	B (A)	11.0 (10.7)	B (B)
14. Airport Way / Tactical Way (SSSC)	5.5 (7.2)	A (B)	6.7 (8.7)	A (B)

Notes:
SSSC = Side-Street Stop Control; LOS = Level of Service
[1] For signalized intersections and all-way stop controlled intersections, average intersection delay is reported in seconds per vehicle for all approaches. For side street stop-controlled intersections, intersection delay is reported in seconds per vehicle for the overall intersection and (worst-case) movement. Intersection delay is calculated based on the procedures and methodology contained in the Highway Capacity Manual 6th Edition (Transportation Research Board, 2016).
Source: Fehr & Peers, 2022

The results of the intersection level of service analysis showed that the proposed Airport Business Centre North Project would not result in any intersections operating below acceptable level of service thresholds on the surrounding transportation network. All fourteen (14) study intersections would continue to operate at acceptable Level of Service D or better under Existing With Project Conditions.

INTERSECTION LEVEL OF SERVICE ANALYSIS – CUMULATIVE CONDITIONS

The tertiary and non-CEQA measure analyzed for the transportation analysis is intersection level of service for Cumulative No Project and Cumulative With Airport Business Centre North Project Weekday AM and PM Peak Hour Conditions. It should be noted that the Existing volumes were developed using traffic counts completed in Fall 2021 and adjusted up to represent Year 2022 ADT volumes.

Table 9 presents the projected AM and PM peak hour intersection level of service for the fourteen (14) study intersections in the project study area using the City of Manteca / City of Lathrop Travel Demand Forecasting (TDF) Model.

Under Cumulative No Project Conditions, traffic associated with land use growth in the City of Manteca and City of Lathrop contributes to the increase in traffic volumes along Lathrop Road. As displayed, the following intersection would operate unacceptably without the proposed Project:

- Union Road/Lathrop Road would operate unacceptably at LOS F during both AM peak hour and PM peak hours

The results of the intersection level of service analysis showed that the proposed Airport Business Centre North Project would not result in any additional intersections operating below acceptable level of service thresholds on the surrounding transportation network. Thirteen (13) of the fourteen (14) study intersections would continue to operate at acceptable Level of Service D or better under Cumulative With Project Conditions. The Union Road/Lathrop Road intersection would continue to operate unacceptably at LOS F during both AM peak hour and PM peak hours under the Cumulative With Project Conditions.

Table 9: Cumulative Level of Service Analysis – No Project versus With Airport Business Centre North Project Weekday AM and PM Peak Hours

Intersection (Control)	Cumulative (No Project)		Cumulative With Project	
	Delay AM(PM)	LOS AM(PM)	Delay AM(PM)	LOS AM(PM)
1. Roth Road / Airport Way (Signal) [2]	22.5 (23.1)	C (C)	23.6 (24.4)	C (C)
2. Roth Road / Intermodal Way (Signal) [2]	10.2 (10.8)	B (B)	11.4 (11.7)	B (B)
3. Roth Road / I-5 SB Ramps (Signal) [2]	13.9 (18.0)	B (B)	14.6 (19.7)	B (B)

Notes:
Bold indicates unacceptable operations.
SSSC = Side-Street Stop Control; LOS = Level of Service
[1] For signalized intersections, roundabouts, and all-way stop controlled intersections, average intersection delay is reported in seconds per vehicle for all approaches. For side street stop-controlled intersections, intersection delay is reported in seconds per vehicle for the overall intersection and (worst-case) movement. Intersection delay is calculated based on the procedures and methodology contained in the Highway Capacity Manual 6th Edition (Transportation Research Board, 2016).
[2] Intersection lane configuration and/or traffic control are different from Existing Conditions due to planned intersection and roadway improvements.
[3] The future interchange design has not been formalized. Delay and LOS are estimated using an improved tight-diamond interchange configuration and are subject to change.
Source: Fehr & Peers, 2022

Table 9 (Continued): Cumulative Level of Service Analysis – No Project versus With Airport Business Centre North Project Weekday AM and PM Peak Hours				
Intersection (Control)	Cumulative (No Project)		Cumulative With Project	
	Delay AM(PM)	LOS AM(PM)	Delay AM(PM)	LOS AM(PM)
4. Roth Road / I-5 NB Ramps (Signal) [2]	13.2 (14.4)	B (B)	14.0 (15.3)	B (B)
5. Airport Way / Lovelace Road (Signal) [2]	9.1 (9.2)	A (A)	9.7 (9.7)	A (A)
6. Airport Way / Daisywood Drive (Signal) [2]	6.9 (7.2)	A (A)	7.7 (7.9)	A (A)
7. Airport Way / Lathrop Road (Signal) [2]	33.2 (32.6)	C (C)	34.5 (34.1)	C (C)
8. Airport Way / Louise Avenue (Signal) [2]	26.2 (28.5)	C (C)	28.0 (29.5)	C (C)
9. Lathrop Road / I-5 SB Ramps (Signal) [2 3]	17.8 (21.3)	B (C)	18.4 (22.0)	B (C)
10. Lathrop Road / I-5 NB Ramps (Signal) [2 3]	34.1 (25.4)	C (C)	34.7 (26.3)	C (C)
11. Lathrop Road / Union Road (Signal)	**89.8 (80.2)**	**F (F)**	**90.3 (80.8)**	**F (F)**
12. Lathrop Road / SR 99 SB Ramps / Main Street (Signal)	47.4 (45.3)	D (D)	47.9 (45.9)	D (D)
13. Lathrop Road / SR 99 NB Ramps (Signal)	11.2 (10.8)	B (B)	11.4 (11.1)	B (B)
14. Airport Way / Tactical Way (SSSC)	10.6 (10.9)	B (B)	11.2 (11.8)	B (B)

Notes:
Bold indicates unacceptable operations.
SSSC = Side-Street Stop Control; LOS = Level of Service
[1] For signalized intersections, roundabouts, and all-way stop controlled intersections, average intersection delay is reported in seconds per vehicle for all approaches. For side street stop-controlled intersections, intersection delay is reported in seconds per vehicle for the overall intersection and (worst-case) movement. Intersection delay is calculated based on the procedures and methodology contained in the Highway Capacity Manual 6th Edition (Transportation Research Board, 2016).
[2] Intersection lane configuration and/or traffic control are different from Existing Conditions due to planned intersection and roadway improvements.
[3] The future interchange design has not been formalized. Delay and LOS are estimated using an improved tight-diamond interchange configuration and are subject to change.
Source: Fehr & Peers, 2022

RECOMMENDED CONDITIONS OF APPROVAL

The following conditions should be incorporated into the Conditions of Approval for the proposed project:

- **Traffic COA #1** – The developer shall pay for the total cost of construction of the Proposed Private Drive on the west site of the project site and require all truck traffic (delivery, California, and Surface Transportation Assistance Act – STAA) to use Intermodal Drive to access the Airport Business Centre North Project.

- **Traffic COA #2** – The developer shall pay their fair share for improvements identified in the City of Manteca Public Facilities Implementation Plan (PFIP) by paying current fees as determined by the City of Manteca prior to issuance of building permits to improve intersections in the City of Manteca.

- **Traffic COA #3** – The developer shall pay their fair share of the SJCOG Regional Transportation Impact Fee (RTIF) by paying current fees as determined by the City of Manteca prior to issuance of building permits to improve the Roth Road Corridor in the City of Manteca, City of Lathrop, and San Joaquin County.

- **Traffic COA #4** – The developer shall work with the City of Manteca Engineering Department and Caltrans District 10 to document STAA Terminal Access Route from Interstate 5 to Roth Road / Intermodal Way and Tactical Way / Airport Business Centre truck turnaround area.

- **Traffic COA #5** – The developer shall pay for the current PFIP fee as determined by the City of Manteca prior to issuance of building permits to mitigate the Union Road / Lathrop Road intersection under Cumulative Conditions. Based on the City of Manteca General Plan Travel Demand Forecasting (TDF) Model, the project contributes 1.3 percent of the volume at this intersection under Cumulative Plus Project Conditions, Therefore, the project's fair share contribution would be 1.3 percent of the total cost of installing a new traffic signal controller and completing a traffic signal timing optimization study that was identified as COA#3 for the North Manteca Annexation Project.

APPENDIX C: NOISE STUDY

Environmental Noise Assessment

Airport Business Centre 2

City of Manteca, California

May 26, 2022

Project #220411

Prepared for:

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Appendices

Appendix A: Acoustical Terminology
Appendix B: Continuous Ambient Noise Measurement Results

This section provides a general description of the existing noise sources in the project vicinity, a discussion of the regulatory setting, and identifies potential noise impacts associated with the proposed project. Project impacts are evaluated relative to applicable noise level criteria and to the existing ambient noise environment. Mitigation measures have been identified for significant noise-related impacts.

3.10.1 ENVIRONMENTAL SETTING

KEY TERMS

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given area consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of noise.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response. A-weighted dB values are expressed as dBA.
Decibel or dB	Fundamental unit of sound, defined as ten times the logarithm of the ratio of the sound pressure squared over the reference pressure squared.
CNEL	Community noise equivalent level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.
Frequency	The measure of the rapidity of alterations of a periodic acoustic signal, expressed in cycles per second or Hertz.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
L_{dn}	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
L_{eq}	Equivalent or energy-averaged sound level.
L_{max}	The highest root-mean-square (RMS) sound level measured over a given period of time.
$L_{(n)}$	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L_{50} is the sound level exceeded 50 percent of the time during the one hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
Noise	Unwanted sound.
SEL	Sound exposure levels. A rating, in decibels, of a discrete event, such as an aircraft flyover or train passby, that compresses the total sound energy into a one-second event.

FUNDAMENTALS OF ACOUSTICS

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dB) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels, but are expressed as dB, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10 dB is generally perceived as a doubling in loudness. For example, a 70-dB sound is half as loud as an 80-dB sound, and twice as loud as a 60-dB sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn}, and shows very good correlation with community response to noise.

The day/night average level (L_{dn}) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment. CNEL is similar to L_{dn}, but includes

a +5-dB penalty for evening noise. Table 3.10-1 lists several examples of the noise levels associated with common situations.

TABLE 3.10-1: TYPICAL NOISE LEVELS

COMMON OUTDOOR ACTIVITIES	*NOISE LEVEL (DB)*	*COMMON INDOOR ACTIVITIES*
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft)	--100--	
Gas Lawn Mower at 1 m (3 ft)	--90--	
Diesel Truck at 15 m (50 ft), at 80 km/hr (50 mph)	--80--	Food Blender at 1 m (3 ft) Garbage Disposal at 1 m (3 ft)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft)	--70--	Vacuum Cleaner at 3 m (10 ft)
Commercial Area Heavy Traffic at 90 m (300 ft)	--60--	Normal Speech at 1 m (3 ft)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

SOURCE: CALTRANS, TECHNICAL NOISE SUPPLEMENT, TRAFFIC NOISE ANALYSIS PROTOCOL. SEPTEMBER 2013.

EFFECTS OF NOISE ON PEOPLE

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction;
- Interference with activities such as speech, sleep, and learning; and
- Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a 1 dB change cannot be perceived;
- Outside of the laboratory, a 3-dB change is considered a just-perceivable difference;
- A change in level of at least 5-dB is required before any noticeable change in human response would be expected; and

- A 10-dB change is subjectively heard as approximately a doubling in loudness and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6 dB per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

EXISTING AND FUTURE NOISE AND VIBRATION ENVIRONMENTS

Existing and Surrounding Land Uses

North: Existing commercial uses border the northern boundary.

East: South Airport Way and existing single family residential uses are located east of the project site.

South: Existing farmland and commercial uses border the southern boundary of the overall project site.

West: Commercial uses border the western boundary of the overall project site.

Existing Ambient Noise Levels

To quantify the existing ambient noise environment in the Project Vicinity, a continuous (24-hour) noise level measurement was conducted on the project site on May 12th, 2022. The noise measurement location is shown on Figure 3.10-1. The noise level measurement survey results are provided in Table 3.10-2. Appendix B of Appendix F shows the complete results of the noise monitoring survey.

The sound level meter was programmed to collect hourly noise level intervals at each site during the survey. The maximum value (L_{max}) represents the highest noise level measured during an interval. The average value (L_{eq}) represents the energy average of all of the noise measured during an interval. The median value (L_{50}) represents the sound level exceeded 50 percent of the time during an interval.

A Larson Davis Laboratories (LDL) Model 820 precision integrating sound level meter was used for the ambient noise level measurement survey. The meter was calibrated before and after use with an LDL Model CAL200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

TABLE 3.10-2: SUMMARY OF EXISTING BACKGROUND NOISE MEASUREMENT DATA

SITE	LOCATION	DATE/TIME	L_{DN}	AVERAGE MEASURED HOURLY NOISE LEVELS, DB					
				DAYTIME (7AM-10PM)			NIGHTTIME (10PM-7AM)		
				L_{EQ}	L_{50}	L_{MAX}	L_{EQ}	L_{50}	L_{MAX}
Continuous (24-hour) Noise Level Measurements									
LT-1	Eastern side of project site, 160 feet to Airport Way Centerline	5/12/2022	67	62	58	79	60	54	79

SOURCE: SAXELBY ACOUSTICS, 2022.

Existing and Future Traffic Noise Environment at Sensitive Receptors

OFF-SITE TRAFFIC NOISE IMPACT ASSESSMENT METHODOLOGY

To predict existing and cumulative noise levels due to traffic, the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The model is based upon the Calveno reference noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions.

Traffic noise analysis was conducted for roadways which would affect sensitive receptors within the project area as well as receptors which lie outside of the overall project site. Traffic noise level changes are presented by roadway rather than by planning boundary.

Traffic volumes for existing conditions were obtained from the traffic data prepared for the project (Fehr & Peers, 2022). Truck percentages and vehicle speeds on the local area roadways were estimated from field observations.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segment. Where traffic noise barriers are predominately along a roadway segment, a -5 offset was added to the noise prediction model to account for various noise barrier heights. A -5 to dB offset was also applied where outdoor activity areas are shielded by intervening buildings. In some locations, sensitive receptors may be located at distances which vary from the assumed calculation distance and may experience shielding from intervening barriers or sound walls. However, the traffic noise analysis is believed to be representative of the majority of sensitive receptors located closest to the project-area roadway segments analyzed in this report.

Table 3.10-3 shows the existing traffic noise levels in terms of L_{dn} at closest sensitive receptors along each roadway segment. A complete listing of the FHWA Model input data is contained in Appendix C of Appendix F.

TABLE 3.10-3: EXISTING TRAFFIC NOISE LEVELS

ROADWAY	*SEGMENT*	*EXTERIOR TRAFFIC NOISE LEVEL, DB L_{DN}*
Roth Road	Between Intermodal and Airport Way	51.9
Roth Road	Between Intermodal and McKinley Ave	66.0
Roth Road	Between McKinley Ave. and Harlan Road	50.3
Roth Road	Between Harlan Rd. and NB I-5 Off/On-Ramps	54.3
Roth Road	Between NB I-5 Off/On Ramps and SB I-5 Off/On Ramps	54.0
Airport Way	French Camp Road and Roth Road	64.9
Airport Way	Roth Road and Lovelace Road	61.4
Airport Way	Lovelace Rd. and Daisywood Dr.	64.2
Airport Way	Daisywood Dr. and Pinnacle Dr.	61.1
Airport Way	Pinnacle Dr. and Lathrop Rd.	67.5
Airport Way	Lathrop Rd. and Northgate Dr.	67.4
Airport Way	Northgate Dr. and Louise Ave.	66.5
Airport Way	Louise Ave. and Crom Ave.	65.2
Airport Way	Crom Ave. and Yosemite Ave.	68.7
Lathrop Road	Union Rd. and Airport Way	70.8
Lathrop Road	Airpory Way and McKinley Ave.	51.3
Lathrop Road	McKinley Ave. and 5th Street	68.7
Lathrop Road	5th Street and Harlan Rd.	67.6
Lathrop Road	Harlan Rd. and NB I-5 Off/On-Ramps	55.9
Lathrop Road	Between NB I-5 Off/On Ramps and SB I-5 Off/On Ramps	49.5
Spartan Way	SB I-5 Off/On Ramps and Golden Valley Parkway	34.2
Intermodal Way	Roth Road and 5.11 Tactical Building	31.9
Intermodal Way	5.11 Tactical Building and Tacical Way	29.9

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM FEHR & PEERS AND SAXELBY ACOUSTICS. 2022.

PREDICTED EXTERIOR TRAFFIC NOISE LEVELS

Implementation of the proposed project would result in an increase in ADT volumes on the local roadway network, and consequently, an increase in noise levels from traffic sources along affected segments. Tables 3.10-4 and 3.10-5 show the predicted traffic noise level increases on the local roadway network for Existing, Existing + Project, Cumulative No Project, and Cumulative + Project conditions. Appendix C of Appendix F provides the complete inputs and results of the FHWA traffic noise modeling.

TABLE 3.10-4: EXISTING AND EXISTING PLUS PROJECT TRAFFIC NOISE LEVELS

		NOISE LEVELS (L_{DN}, dB) AT NEAREST SENSITIVE RECEPTORS				
		EXISTING	*EXISTING + PROJECT*	*CHANGE*	*EX. GP CRITERIA*[1]	*SIGNIFICANT UNDER EX. GP?*
ROADWAY	*SEGMENT*				*PROPOSED GP CRITERIA*[2]	*SIGNIFICANT UNDER GP UPDATE?*
Roth Road	Between Intermodal and Airport Way	51.9	51.9	0.0	>60 dBA	No
					+5 dBA	No
Roth Road	Between Intermodal and McKinley Ave	66.0	66.1	0.1	+5-10 dBA	No
					+1.5 dBA	No
Roth Road	Between McKinley Ave. and Harlan Road	50.3	50.4	0.1	>60 dBA	No
					+5 dBA	No
Roth Road	Between Harlan Rd. and NB I-5 Off/On-Ramps	54.3	54.4	0.1	>60 dBA	No
					+5 dBA	No
Roth Road	Between NB I-5 Off/On Ramps and SB I-5 Off/On Ramps	54.0	54.1	0.1	>60 dBA	No
					+5 dBA	No
Airport Way	French Camp Road and Roth Road	64.9	65.0	0.1	+5-10 dBA	No
					+3 dBA	No
Airport Way	Roth Road and Lovelace Road	61.4	61.5	0.1	+5-10 dBA	No
					+3 dBA	No
Airport Way	Lovelace Rd. and Daisywood Dr.	64.2	64.3	0.1	+5-10 dBA	No
					+3 dBA	No
Airport Way	Daisywood Dr. and Pinnacle Dr.	61.1	61.6	0.5	+5-10 dBA	No
					+3 dBA	No
Airport Way	Pinnacle Dr. and Lathrop Rd.	67.5	67.9	0.4	+5-10 dBA	No
					+1.5 dBA	No
Airport Way	Lathrop Rd. and Northgate Dr.	67.4	67.6	0.2	+5-10 dBA	No
					+1.5 dBA	No
Airport Way	Northgate Dr. and Louise Ave.	66.5	66.6	0.1	+5-10 dBA	No
					+1.5 dBA	No
Airport Way		65.2	65.3	0.1	+5-10 dBA	No

Roadway	Segment	Noise Levels (L_{DN}, dB) at Nearest Sensitive Receptors				
		Existing	Existing + Project	Change	Ex. GP Criteria[1]	Significant Under Ex. GP?
					Proposed GP Criteria[2]	Significant Under GP Update?
	Louise Ave. and Crom Ave.				+1.5 dBA	No
Airport Way	Crom Ave. and Yosemite Ave.	68.7	68.8	0.1	+5-10 dBA	No
					+1.5 dBA	No
Lathrop Road	Union Rd. and Airport Way	70.8	70.9	0.1	+5-10 dBA	No
					+1.5 dBA	No
Lathrop Road	Airpory Way and McKinley Ave.	51.3	51.3	0.0	>60 dBA	No
					+5 dBA	No
Lathrop Road	McKinley Ave. and 5th Street	68.7	68.7	0.0	+5-10 dBA	No
					+1.5 dBA	No
Lathrop Road	5th Street and Harlan Rd.	67.6	67.7	0.1	+5-10 dBA	No
					+1.5 dBA	No
Lathrop Road	Harlan Rd. and NB I-5 Off/On-Ramps	55.9	55.9	0.0	>60 dBA	No
					+5 dBA	No
Lathrop Road	Between NB I-5 Off/On Ramps and SB I-5 Off/On Ramps	49.5	49.5	0.0	>60 dBA	No
					+5 dBA	No
Spartan Way	SB I-5 Off/On Ramps and Golden Valley Parkway	34.2	34.3	0.1	>60 dBA	No
					+5 dBA	No
Intermodal Way	Roth Road and 5.11 Tactical Building	31.9	32.6	0.7	>60 dBA	No
					+5 dBA	No

[1] Existing GP Criteria - In making a determination of impact under the California Environmental Quality Act (CEQA), a substantial increase will occur if ambient noise levels are increased by 10 dB or more. An increase from 5-10 dB may be substantial. Factors to be considered in determining the significance of increases from 5-10 dB include:

- *the resulting noise levels*
- *the duration and frequency of the noise*
- *the number of people affected*
- *the land use designation of the affected receptor sites*
- *public reactions/controversy as demonstrated at workshops/hearings, or by correspondence*
- *prior CEQA determinations by other agencies specific to the project*

[2] Proposed GP Criteria - In making a determination of impact under the California Environmental Quality Act (CEQA), a substantial increase will occur if ambient noise levels are have a substantial increase. Generally, a 3 dB increase in noise levels is barely perceptible, and a 5 dB increase in noise levels is clearly perceptible. Therefore, increases in noise levels shall be considered to be substantial when the following occurs:

- *When existing noise levels are less than 60 dB, a 5 dB increase in noise will be considered substantial;*

- *WHEN EXISTING NOISE LEVELS ARE BETWEEN 60 DB AND 65 DB, A 3 DB INCREASE IN NOISE WILL BE CONSIDERED SUBSTANTIAL;*
- *WHEN EXISTING NOISE LEVELS EXCEED 65 DB, A 1.5 DB INCREASE IN NOISE WILL BE CONSIDERED SUBSTANTIAL.*

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM FEHR & PEERS AND SAXELBY ACOUSTICS. 2022.

TABLE 3.10-5: CUMULATIVE AND CUMULATIVE + PROJECT TRAFFIC NOISE LEVELS

		NOISE LEVELS (L_{DN}, DB) AT NEAREST SENSITIVE RECEPTORS				
		CUMULATIVE	*CUMULATIVE + PROJECT*	*CHANGE*	*EX. GP CRITERIA*[1]	*SIGNIFICANT UNDER EX. GP?*
ROADWAY	*SEGMENT*				*PROPOSED GP CRITERIA*[2]	*SIGNIFICANT UNDER GP UPDATE?*
Roth Road	Between Intermodal and Airport Way	54.5	54.5	0.0	>60 dBA	No
					+5 dBA	No
Roth Road	Between Intermodal and McKinley Ave	68.6	68.7	0.1	+5-10 dBA	No
					+1.5 dBA	No
Roth Road	Between McKinley Ave. and Harlan Road	53.3	53.3	0.0	>60 dBA	No
					+5 dBA	No
Roth Road	Between Harlan Rd. and NB I-5 Off/On-Ramps	56.5	56.5	0.0	>60 dBA	No
					+5 dBA	No
Roth Road	Between NB I-5 Off/On Ramps and SB I-5 Off/On Ramps	59.8	59.9	0.1	>60 dBA	No
					+5 dBA	No
Airport Way	French Camp Road and Roth Road	68.7	68.8	0.1	+5-10 dBA	No
					+1.5 dBA	No
Airport Way	Roth Road and Lovelace Road	66.1	66.1	0.0	+5-10 dBA	No
					+1.5 dBA	No
Airport Way	Lovelace Rd. and Daisywood Dr.	67.8	67.9	0.1	+5-10 dBA	No
					+1.5 dBA	No
Airport Way	Daisywood Dr. and Pinnacle Dr.	64.4	64.6	0.2	+5-10 dBA	No
					+3 dBA	No
Airport Way	Pinnacle Dr. and Lathrop Rd.	72.0	72.1	0.1	+5-10 dBA	No
					+1.5 dBA	No
Airport Way	Lathrop Rd. and Northgate Dr.	71.0	71.1	0.1	+5-10 dBA	No
					+1.5 dBA	No
Airport Way	Northgate Dr. and Louise Ave.	69.4	69.5	0.1	+5-10 dBA	No
					+1.5 dBA	No
Airport Way	Louise Ave. and Crom Ave.	67.1	67.2	0.1	+5-10 dBA	No
					+1.5 dBA	No
Airport Way	Crom Ave. and Yosemite Ave.	70.4	70.5	0.1	+5-10 dBA	No
					+1.5 dBA	No
Lathrop Road	Union Rd. and Airport Way	72.0	72.0	0.0	+5-10 dBA	No
					+1.5 dBA	No

Roadway	Segment	Noise Levels (L_{DN}, dB) at Nearest Sensitive Receptors				
		Cumulative	Cumulative + Project	Change	Ex. GP Criteria[1]	Significant Under Ex. GP?
					Proposed GP Criteria[2]	Significant Under GP Update?
Lathrop Road	Airpory Way and McKinley Ave.	51.9	51.9	0.0	>60 dBA	No
					+5 dBA	No
Lathrop Road	McKinley Ave. and 5th Street	69.6	69.6	0.0	+5-10 dBA	No
					+1.5 dBA	No
Lathrop Road	5th Street and Harlan Rd.	68.5	68.6	0.1	+5-10 dBA	No
					+1.5 dBA	No
Lathrop Road	Harlan Rd. and NB I-5 Off/On-Ramps	57.5	57.5	0.0	>60 dBA	No
					+5 dBA	No
Lathrop Road	Between NB I-5 Off/On Ramps and SB I-5 Off/On Ramps	53.3	53.3	0.0	>60 dBA	No
					+5 dBA	No
Spartan Way	SB I-5 Off/On Ramps and Golden Valley Parkway	41.4	41.4	0.0	>60 dBA	No
					+5 dBA	No
Intermodal Way	Roth Road and 5.11 Tactical Building	33.5	34.0	0.5	>60 dBA	No
					+5 dBA	No
Intermodal Way	5.11 Tactical Building and Tacical Way	32.7	33.3	0.6	>60 dBA	No
					+5 dBA	No

[1] Existing GP Criteria - In making a determination of impact under the California Environmental Quality Act (CEQA), a substantial increase will occur if ambient noise levels are increased by 10 dB or more. An increase from 5-10 dB may be substantial. Factors to be considered in determining the significance of increases from 5-10 dB include:

- *the resulting noise levels*
- *the duration and frequency of the noise*
- *the number of people affected*
- *the land use designation of the affected receptor sites*
- *public reactions/controversy as demonstrated at workshops/hearings, or by correspondence*
- *prior CEQA determinations by other agencies specific to the project*

[2] Proposed GP Criteria - In making a determination of impact under the California Environmental Quality Act (CEQA), a substantial increase will occur if ambient noise levels are have a substantial increase. Generally, a 3 dB increase in noise levels is barely perceptible, and a 5 dB increase in noise levels is clearly perceptible. Therefore, increases in noise levels shall be considered to be substantial when the following occurs:

- *When existing noise levels are less than 60 dB, a 5 dB increase in noise will be considered substantial;*
- *When existing noise levels are between 60 dB and 65 dB, a 3 dB increase in noise will be considered substantial;*
- *When existing noise levels exceed 65 dB, a 1.5 dB increase in noise will be considered substantial.*

Source: FHWA-RD-77-108 with inputs from Fehr & Peers and Saxelby Acoustics. 2022.

Based upon data in Tables 3.10-4 and 3.10-5, the proposed project is predicted to result in a maximum traffic noise level increase of 1.5 dB.

EVALUATION OF FUTURE OPERATIONAL NOISE AT OFF-SITE NOISE-SENSITIVE RECEPTORS

Operational Noise Levels

The primary noise generating components of the new commercial development would be truck movements, auto circulation, and loading dock activity. The following is a list of assumptions used for the noise modeling. The data used is based upon a combination of manufacturer's provided data and Saxelby Acoustics data from similar operations.

LOADING DOCK NOISE GENERATION

To determine typical noise levels associated with the proposed loading docks, noise level measurement data from a United Natural Foods, Inc. (UNFI) warehouse was used. The noise level measurements were conducted at a distance of 200 feet from the center of the loading dock and circulation area. Activities during the peak hour of loading dock activities included truck arrival/departures, truck idling, truck backing, air brake release, and operation of truck-mounted refrigeration units.

The results of the loading dock noise measurements indicate that a busy hour generated an average noise level of 61 dBA L_{eq} at a distance of 200 feet from the center of the loading dock truck maneuvering lanes. This analysis assumes that the proposed loading docks would operate at this level of activity in a busy hour during either daytime (7:00 a.m. to 10:00 p.m.) or nighttime (10:00 p.m. to 7:00 a.m.).

PARKING LOT CIRCULATION

Based upon the project traffic study, the peak hour trips for the project would be 124 passenger vehicles and 23 tractor-trailers. Based upon noise measurements conducted of vehicle movements in parking lots, the sound exposure level (SEL) for a single passenger vehicle is 71 dBA at a distance of 50 feet while the SEL of a tractor-trailer is 85 dBA at the same distance.

Saxelby Acoustics used the SoundPLAN noise prediction model. Inputs to the model included sound power levels for the proposed commercial uses, existing and proposed buildings, terrain type, and locations of sensitive receptors. These predictions are made in accordance with International Organization for Standardization (ISO) standard 9613-2:1996 (Acoustics – Attenuation of sound during propagation outdoors). ISO 9613 is the most commonly used method for calculating exterior noise propagation. Figure 3.10-2 shows the noise level contours resulting from operation of the project.

CONSTRUCTION NOISE ENVIRONMENT

During the construction of the proposed project, including roads, water, and sewer lines and related infrastructure, noise from construction activities would add to the noise environment in the project vicinity. As indicated in Table 3.10-6, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dB at a distance of 50 feet.

TABLE 3.10-6: CONSTRUCTION EQUIPMENT NOISE

TYPE OF EQUIPMENT	*MAXIMUM LEVEL, DB*	
	25 FEET	*50 FEET*
Backhoe	84	78
Compactor	89	83
Compressor (air)	84	78
Concrete Saw	96	90
Dozer	88	82
Dump Truck	82	76
Excavator	87	81
Generator	87	81
Jackhammer	94	89
Pneumatic Tools	91	85

SOURCE: ROADWAY CONSTRUCTION NOISE MODEL USER'S GUIDE. FEDERAL HIGHWAY ADMINISTRATION. FHWA-HEP-05-054. JANUARY 2006.

CONSTRUCTION VIBRATION ENVIRONMENT

The primary vibration-generating activities associated with the proposed project would happen during construction when activities such as grading, utilities placement, and road construction occur. Table 3.10-7 shows the typical vibration levels produced by construction placement.

TABLE 3.10-7: VIBRATION LEVELS FOR VARIOUS CONSTRUCTION EQUIPMENT

TYPE OF EQUIPMENT	*PEAK PARTICLE VELOCITY @ 25 FEET (INCHES/SECOND)*	*PEAK PARTICLE VELOCITY @ 100 FEET (INCHES/SECOND)*
Large Bulldozer	0.089	0.011
Loaded Trucks	0.076	0.010
Small Bulldozer	0.003	0.000
Auger/drill Rigs	0.089	0.011
Jackhammer	0.035	0.004
Vibratory Hammer	0.070	0.009
Vibratory Compactor/roller	0.210	0.026

SOURCE: FEDERAL TRANSIT ADMINISTRATION, TRANSIT NOISE AND VIBRATION IMPACT ASSESSMENT GUIDELINES, MAY 2006

3.10.2 REGULATORY SETTING

FEDERAL

There are no federal regulations related to noise that apply to the proposed project.

STATE

California Environmental Quality Act

The California Environmental Quality Act (CEQA) Guidelines, Appendix G, indicate that a significant noise impact may occur if a project exposes persons to noise or vibration levels in excess of local general plans or noise ordinance standards, or cause a substantial permanent or temporary increase in ambient noise levels. CEQA standards are discussed more below under the Thresholds of Significance section.

California State Building Codes

The State Building Code, Title 24, Part 2 of the State of California Code of Regulations establishes uniform minimum noise insulation performance standards to protect persons within new buildings which house people, including hotels, motels, dormitories, apartment houses and dwellings other than single-family dwellings. Title 24 mandates that interior noise levels attributable to exterior sources shall not exceed 45 dB L_{dn} or CNEL in any habitable room.

Title 24 also mandates that for structures containing noise-sensitive uses to be located where the L_{dn} or CNEL exceeds 60 dB, an acoustical analysis must be prepared to identify mechanisms for limiting exterior noise to the prescribed allowable interior levels. If the interior allowable noise levels are met by requiring that windows be kept closed, the design for the structure must also specify a ventilation or air conditioning system to provide a habitable interior environment

CITY OF MANTECA

The City of Manteca General Plan – Existing (2003) General Plan

The City of Manteca General Plan Noise Element contains goals, policies, and implementation measures for assessing noise impacts within the City. Listed below are the noise goals, policies, and implementation measures that are applicable to the proposed Project (City of Manteca as amended through 2016):

GOALS: NOISE

- N-1. Protect the residents of Manteca from the harmful and annoying effects of exposure to excessive noise.
- N-2. Protect the quality of life in the community and the tourism economy from noise generated by incompatible land uses.

- N-3. Ensure that the downtown core noise levels remain acceptable and compatible with commercial and higher density residential land uses.
- N-4. Protect public health and welfare by eliminating existing noise problems where feasible, by establishing standards for acceptable indoor and outdoor noise, and by preventing significant increases in noise levels.
- N-5. Incorporate noise considerations into land use planning decisions and guide the location and design of transportation facilities to minimize the effects of noise on adjacent land uses.

POLICIES: NOISE

- N-P-2. New development of residential or other noise-sensitive land uses will not be permitted in noise-impacted areas unless effective mitigation measures are incorporated into the project design to satisfy the performance standards in Table 9-1 [Table 3.10-8].
- N-P-4: The City shall require stationary noise sources proposed adjacent to noise sensitive uses to be mitigated so as to not exceed the noise level performance standards in Table 9-2 [Table 3.10-9].

TABLE 3.10-8: MAXIMUM ALLOWABLE NOISE EXPOSURE MOBILE NOISE SOURCES

LAND USE[4]	*OUTDOOR ACTIVITY AREAS*[1]	*INTERIOR SPACES*	
		L_{DN}/CNEL, dB	L_{EQ}/CNEL, dB[3]
Residential	60[2]	45	--
Transient Lodging	60[2]	45	--
Hospitals, Nursing Homes	60[2]	45	--
Theatres, Auditoriums, Music Halls	--	--	35
Churches, Music Halls	60[2]	--	40
Office Buildings	65	--	45
Schools, Libraries, Museums	--	--	45
Playgrounds, Neighborhood Parks	70	--	--

NOTES:

[1] OUTDOOR ACTIVITY AREAS FOR RESIDENTIAL DEVELOPMENT ARE CONSIDERED TO BE BACKYARD PATIOS OR DECKS OF SINGLE FAMILY DWELLINGS, AND THE COMMON AREAS WHERE PEOPLE GENERALLY CONGREGATE FOR MULTI-FAMILY DEVELOPMENTS. OUTDOOR ACTIVITY AREAS FOR NON-RESIDENTIAL DEVELOPMENTS ARE CONSIDERED TO BE THOSE COMMON AREAS WHERE PEOPLE GENERALLY CONGREGATE, INCLUDING PEDESTRIAN PLAZAS, SEATING AREAS, AND OUTSIDE LUNCH FACILITIES. WHERE THE LOCATION OF OUTDOOR ACTIVITY AREAS IS UNKNOWN, THE EXTERIOR NOISE LEVEL STANDARD SHALL BE APPLIED TO THE PROPERTY LINE OF THE RECEIVING LAND USE.

[2] IN AREAS WHERE IT IS NOT POSSIBLE TO REDUCE EXTERIOR NOISE LEVELS TO 60 DB L_{DN} OR BELOW USING A PRACTICAL APPLICATION OF THE BEST NOISE-REDUCTION TECHNOLOGY, AN EXTERIOR NOISE LEVEL OF UP TO 65 L_{DN} WILL BE ALLOWED.

[3] DETERMINED FOR A TYPICAL WORST-CASE HOUR DURING PERIODS OF USE.

[4] WHERE A PROPOSED USE IS NOT SPECIFICALLY LISTED ON THE TABLE, THE USE SHALL COMPLY WITH THE NOISE EXPOSURE STANDARDS FOR THE NEAREST SIMILAR USE AS DETERMINED BY THE CITY.

SOURCE: CITY OF MANTECA GENERAL PLAN, NOISE ELEMENT, TABLE 9-1.

- N-P-3. The City may permit the development of new noise-sensitive uses only where the noise level due to fixed (non-transportation) noise sources satisfies the noise level standards of Table 9-2 [Table 3.10-9]. Noise mitigation may be required to meet Table 9-2 [Table 3.10-9] performance standards.

TABLE 3.10-9: PERFORMANCE STANDARDS FOR STATIONARY NOISE SOURCES OR PROJECTS AFFECTED BY STATIONARY NOISE SOURCES [1,2]

NOISE LEVEL DESCRIPTOR	*DAYTIME (7 AM – 10 PM)*	*NIGHTTIME (10 PM – 7 AM)*
Hourly L_{eq}, dB	50	45
Maximum Level, dB	70	65

NOTES:

[1] EACH OF THE NOISE LEVELS SPECIFIED ABOVE SHOULD BE LOWERED BY FIVE (5) DB FOR SIMPLE NOISE TONES, NOISES CONSISTING PRIMARILY OF SPEECH OR MUSIC, OR RECURRING IMPULSIVE NOISES. SUCH NOISES ARE GENERALLY CONSIDERED BY RESIDENTS TO BE PARTICULARLY ANNOYING AND ARE A PRIMARY SOURCE OF NOISE COMPLAINTS.

[2] NO STANDARDS HAVE BEEN INCLUDED FOR INTERIOR NOISE LEVELS. STANDARD CONSTRUCTION PRACTICES SHOULD, WITH THE EXTERIOR NOISE LEVELS IDENTIFIED, RESULT IN ACCEPTABLE INTERIOR NOISE LEVELS.

SOURCE: CITY OF MANTECA GENERAL PLAN, NOISE ELEMENT, TABLE 9-2.

- N-P-5. In accord with the Table 9-2 [Table 3.10-9] standards, the City shall regulate construction-related noise impacts on adjacent uses.

IMPLEMENTATION MEASURES: NOISE

- N-I-1. New development in residential areas with an actual or projected exterior noise level of greater than 60 dB L_{dn} will be conditioned to use mitigation measures to reduce exterior noise levels to less than or equal to 60 dB L_{dn}.
- N-I-3. In making a determination of impact under the California Environmental Quality Act (CEQA), a substantial increase will occur if ambient noise levels are increased by 10 dB or more. An increase from 5-10 dB may be substantial. Factors to be considered in determining the significance of increases from 5-10 dB include:
    - the resulting noise levels
    - the duration and frequency of the noise
    - the number of people affected
    - the land use designation of the affected receptor sites
    - public reactions or controversy as demonstrated at workshops or hearings, or by correspondence
    - prior CEQA determinations by other agencies specific to the project
- N-I-4. Control noise at the source through use of insulation, berms, building design and orientation, buffer space, staggered operating hours and other techniques. Use noise barriers to attenuate noise to acceptable levels.

The City of Manteca General Plan – Proposed General Plan Update

The goals and policies of the proposed General Plan are also considered in this document. The City of Manteca General Plan Update noise goals, policies, and implementation measures are included below:

GOALS

Goal S-5: Protect the quality of life by protecting the community from harmful and excessive noise.

POLICIES

S-5.1 Incorporate noise considerations into land use, transportation, and infrastructure planning decisions, and guide the location and design of noise-producing uses to minimize the effects of noise on adjacent noise-sensitive land uses, including residential uses and schools.

S-5.2 Ensure that Downtown noise levels remain acceptable and compatible with a pedestrian-oriented environment and higher density residential land uses.

S-5.3 Areas within Manteca exposed to existing or projected exterior noise levels from mobile noise sources exceeding the performance standards in Table S-1 shall be designated as noise-impacted areas.

S-5.4 Require residential and other noise-sensitive development projects to satisfy the noise level criteria in Tables S-1 and S-2.

S-5.5 Require new stationary noise sources proposed adjacent to noise sensitive uses to be mitigated so as to not exceed the noise level performance standards in Table S-2, or a substantial increase in noise levels established through a detailed ambient noise survey.

S-5.6 Regulate construction-related noise to reduce impacts on adjacent uses to the criteria identified in Table S-2 or, if the criteria in Table S-2 cannot be met, to the maximum level feasible using best management practices and complying with the MMC Chapter 9.52.

S-5.7 Where the development of residential or other noise-sensitive land use is proposed for a noise-impacted area or where the development of a stationary noise source is proposed in the vicinity of noise-sensitive uses, an acoustical analysis is required as part of the environmental review process so that noise mitigation may be considered in the project design. The acoustical analysis shall:

- Be the responsibility of the applicant.
- Be prepared by a qualified acoustical consultant experienced in the fields of environmental noise assessment and architectural acoustics.
- Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions and the predominant noise sources.
- Estimate existing and projected (20 years) noise levels in terms of the standards of Table S-1 or Table S-2, and compare those levels to the adopted policies of the Noise

Element.

- Recommend appropriate mitigation measures to achieve compliance with the adopted policies and standards of the Noise Element.
- Estimate noise exposure after the prescribed mitigation measures have been implemented.
- If necessary, describe a post-project assessment program to monitor the effectiveness of the proposed mitigation measures.

S-5.8 Apply noise level criteria applied to land uses other than residential or other noise-sensitive uses consistent with noise performance levels of Table S-1 and Table S-2.

S-5.9 Enforce the Sound Transmission Control Standards of the California Building Code concerning the construction of new multiple occupancy dwellings such as hotels, apartments, and condominiums.

S-5.10 Ensure that new equipment and vehicles purchased by the City comply with noise level performance standards consistent with the best available noise reduction technology.

S-5.11 Require the Manteca Police Department to actively enforce requirements of the California Vehicle Code relating to vehicle mufflers and modified exhaust systems.

S-5.12 For new residential development backing on to a freeway or railroad right-of-way, the developer shall be required to provide appropriate mitigation measures to satisfy the performance standards in Table S-1.

S-5.13 It is recognized that the City and surrounding areas are considered to be urban in nature and rely upon both the industrial and agricultural economy of the area. Therefore, it is recognized that noise sources of existing uses may exceed generally accepted standards.

S-5.14 Carefully review and give potentially affected residents an opportunity to fully review any proposals for the establishment of helipads or heliports.

S-5.15 Recognizing that existing noise-sensitive uses may be exposed to increase noise levels due to circulation improvement projects associated with development under the General Plan and that it may not be feasible to reduce increased traffic noise levels to the criteria identified in Table S-1, the following criteria may be used to determine the significance of noise impacts associated with circulation improvement projects:

- Where existing traffic noise levels are less than 60 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +5 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant; and
- Where existing traffic noise levels range between 60 and 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +3 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant; and
- Where existing traffic noise levels are greater than 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a + 1.5 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant.

S-5.16 Work with the Federal Railroad Administration and passenger and freight rail operators to reduce exposure to rail and train noise, including establishing train horn "quiet zones" consistent with the federal regulations.

IMPLEMENTATION

S-5a Require an acoustical analysis that complies with the requirements of S-5.7 where:

- *Noise sensitive land uses are proposed in areas exposed to existing or projected noise levels exceeding the levels specified in Table S-1 or S-2.*
- *Proposed transportation projects are likely to produce noise levels exceeding the levels specified in Table S-1 or S-2 at existing or planned noise sensitive uses.*

S-5b Assist in enforcing compliance with noise emissions standards for all types of vehicles, established by the California Vehicle Code and by federal regulations, through coordination with the Manteca Police Department and the California Highway Patrol.

S-5c Update the City's Noise Ordinance (Chapter 9.52) to reflect the noise standards established in this Noise Element and proactively enforce the City's Noise Ordinance, including requiring the following measures for construction:

- *Restrict construction activities to the hours of 7:00 a.m. to 7:00 p.m. on Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturdays. No construction shall be permitted outside of these hours or on Sundays or federal holidays, without a specific exemption issued by the City.*
- *A Construction Noise Management Plan shall be submitted by the applicant for construction projects, when determined necessary by the City. The Construction Noise Management Plan shall include proper posting of construction schedules, appointment of a noise disturbance coordinator, and methods for assisting in noise reduction measures.*
- *Noise reduction measures may include, but are not limited to, the following:*
    a. *Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds) wherever feasible.*
    b. *Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. This muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available. this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.*
    c. *Temporary power poles shall be used instead of generators where feasible.*

d. Stationary noise sources shall be located as far from adjacent properties as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City of provide equivalent noise reduction.

e. The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.

f. Delivery of materials shall observe the hours of operation described above.

g. *Truck traffic should avoid residential areas to the extent possible.*

S-5d In making a determination of impact under the California Environmental Quality Act (CEQA), a substantial increase will occur if ambient noise levels are have a substantial increase. Generally, a 3 dB increase in noise levels is barely perceptible, and a 5 dB increase in noise levels is clearly perceptible. Therefore, increases in noise levels shall be considered to be substantial when the following occurs:

- *When existing noise levels are less than 60 dB, a 5 dB increase in noise will be considered substantial;*
- *When existing noise levels are between 60 dB and 65 dB, a 3 dB increase in noise will be considered substantial;*
- *When existing noise levels exceed 65 dB, a 1.5 dB increase in noise will be considered substantial.*

Additional or alternative criteria can be used for determining a substantial increase in noise levels. For instance, if the overall increase in noise levels occurs where no noise-sensitive uses are located, then the City may use their discretion in determining if there is any impact at all. In such a case, the following alternative factors may be used for determining a substantial increase in noise levels:

- *the resulting noise levels;*
- *the duration and frequency of the noise;*
- *the number of people affected;*
- *conforming or non-conforming land uses;*
- *the land use designation of the affected receptor sites;*
- *public reactions or controversy as demonstrated at workshops or hearings, or by correspondence; and*
- *prior CEQA determinations by other agencies specific to the project.*

S-5e Control noise at the source through use of insulation, berms, building design and orientation, buffer space, staggered operating hours, and similar techniques. Where such techniques would not meet acceptable levels, use noise barriers to attenuate noise associated with new noise sources to acceptable levels.

S-5f Require that all noise-attenuating features are designed to be attractive and to minimize

maintenance.

S-5g *Evaluate new transportation projects, such as truck routes, rail or public transit routes, and transit stations, using the standards contained in Table S-1. However, noise from these projects may be allowed to exceed the standards contained in Table S-1, if the City Council finds that there are special overriding circumstances.*

S-5h *Work with the Federal Rail Authority and passenger and freight rail service providers to establish a Quiet Zone at at-grade crossings in the City. Where new development would be affected by the train and rail noise, require project applicants to fund a fair-share of: a) studies associated with the application for a Quiet Zone, and b) alternative safety measures associated with the Quiet Zone (including, but not limited to signage, gates, lights, etc.).*

S-5i *Work in cooperation with Caltrans, the Union Pacific Railroad, San Joaquin Regional Rail Commission, and other agencies where appropriate to maintain noise level standards for both new and existing projects in compliance with Table S-1.*

S-5j *The City shall require new residential projects located adjacent to major freeways, truck routes, hard rail lines, or light rail lines to follow the FTA screening distance criteria to ensure that groundborne vibrations to do not exceed acceptable levels.*

TABLE S-1: MAXIMUM ALLOWABLE NOISE EXPOSURE FROM MOBILE NOISE SOURCES

Land Use[1]	Outdoor Activity Areas[2,3]	Interior Spaces	
		Ldn/ CNEL, dBA	Leq, dBA[4]
Residential	60	45	-
Motels/Hotels	65	45	-
Mixed-Use	65	45	
Hospitals, Nursing Homes	60	45	-
Theaters, Auditoriums	-	-	35
Churches	60	-	40
Office Buildings	65	-	45
Schools, Libraries, Museums	70	-	45
Playgrounds, Neighborhood Parks	70	-	-
Industrial	75	-	45
Golf Courses, Water Recreation	70	-	-

[1]Where a proposed use is not specifically listed, the use shall comply with the standards for the most similar use as determined by the City.

[2]Outdoor activity areas for residential development are considered to be the back yard patios or decks of single family units and the common areas where people generally congregate for multi-family developments. Where common outdoor activity areas for multi-family developments comply with the outdoor noise level standard, the standard will not be applied at patios or decks of individual units provided noise-reducing measures are incorporated (e.g., orientation of patio/deck, screening of patio with masonry or other noise-attenuating material). Outdoor activity areas

for non-residential developments are the common areas where people generally congregate, including pedestrian plazas, seating areas, and outside lunch facilities; not all residential developments include outdoor activity areas.

[3]In areas where it is not possible to reduce exterior noise levels to achieve the outdoor activity area standard w using a practical application of the best noise-reduction technology, an increase of up to 5 Ldn over the standard will be allowed provided that available exterior noise reduction measures have been implemented and interior noise levels are in compliance with this table

[4]Determined for a typical worst-case hour during periods of use.

TABLE S-2: PERFORMANCE STANDARDS FOR STATIONARY NOISE SOURCES, INCLUDING AFFECTED PROJECTS[1,2,3,4]

NOISE LEVEL DESCRIPTOR	DAYTIME	NIGHTTIME
	7 AM TO 10 PM	10 PM TO 7 AM
Hourly Leq, dBA	55	45

[1]Each of the noise levels specified above should be lowered by 5 dB for simple noise tones, noises consisting primarily of speech or music, or recurring impulsive noises. Such noises are generally considered to be particularly annoying and are a primary source of noise complaints.

[2]No standards have been included for interior noise levels. Standard construction practices should, with the exterior noise levels identified, result in acceptable interior noise levels.

[3]Stationary noise sources which are typically of concern include, but are not limited to, the following:

HVAC Systems	*Cooling Towers/Evaporative Condensers*
Pump Stations	*Lift Stations*
Emergency Generators	*Boilers*
Steam Valves	*Steam Turbines*
Generators	*Fans*
Air Compressors	*Heavy Equipment*
Conveyor Systems	*Transformers*
Pile Drivers	*Grinders*
Drill Rigs	*Gas or Diesel Motors*
Welders	*Cutting Equipment*
Outdoor Speakers	*Blowers*

[4]The types of uses which may typically produce the noise sources described above include but are not limited to: industrial facilities, pump stations, trucking operations, tire shops, auto maintenance shops, metal fabricating shops, shopping centers, drive-up windows, car washes, loading docks, public works projects, batch plants, bottling and canning plants, recycling centers, electric generating stations, race tracks, landfills, sand and gravel operations, and athletic fields.

City of Manteca Municipal Code Noise Ordinance

Section 9.52.030 of the City of Manteca Municipal Code prohibits excessive or annoying noise or vibration to residential and commercial properties in the City. The following general rules are outline in the ordinance:

9.52.030 PROHIBITED NOISES—GENERAL STANDARD

No person shall make, or cause to suffer, or permit to be made upon any public property, public right-of-way or private property, any unnecessary and unreasonable noises, sounds or vibrations which are physically annoying to reasonable persons of ordinary sensitivity or which are so harsh or

so prolonged or unnatural or unusual in their use, time or place as to cause or contribute to the unnecessary and unreasonable discomfort of any persons within the neighborhood from which said noises emanate or which interfere with the peace and comfort of residents or their guests, or the operators or customers in places of business in the vicinity, or which may detrimentally or adversely affect such residences or places of business. (Ord. 1374 § 1(part), 2007)

17.58.050 D. EXEMPT ACTIVITIES

8. Construction activities when conducted as part of an approved Building Permit, except as prohibited in Subsection 17.58.050(E)(1) (Prohibited Activities) below.

17.58.050 E. Prohibited Activities

1. Construction Noise. Operating or causing the operation of tools or equipment on private property used in alteration, construction, demolition, drilling, or repair work daily between the hours of 7:00 p.m. and 7:00 a.m., so that the sound creates a noise disturbance across a residential property line, except for emergency work of public service utilities.

VIBRATION STANDARDS

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

The City does not have specific policies pertaining to vibration levels. However, vibration levels associated with construction activities are addressed as potential noise impacts associated with project implementation.

Human and structural response to different vibration levels is influenced by several factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 3.10-10 indicates that the threshold for damage to structures ranges from 0.2 to 0.6 peak particle velocity in inches per second (in/sec p.p.v). A threshold of 0.20 in/sec p.p.v. is considered to be a reasonable threshold for short-term construction projects.

TABLE 3.10-10: EFFECTS OF VIBRATION ON PEOPLE AND BUILDINGS

PEAK PARTICLE VELOCITY		*HUMAN REACTION*	*EFFECT ON BUILDINGS*
MM/SEC.	*IN./SEC.*		
0.15-0.30	0.006-0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10-15	0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage.

SOURCE: CALTRANS. TRANSPORTATION RELATED EARTHBORN VIBRATIONS. TAV-02-01-R9601 FEBRUARY 20, 2002.

3.10.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the project will have a significant impact related to noise if it will result in:

Would the project:

a. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

b. Generate excessive groundborne vibration or groundborne noise levels?

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Determination of a Significant Increase in Noise Levels

Existing (2003) General Plan Policies

The CEQA guidelines define a significant impact of a project if it "increases substantially the ambient noise levels for adjoining areas". Implementation Measure N-I-3 of the City of Manteca General Plan Noise Element provides specific guidance for assessing increases in ambient noise, as follows:

> *In making a determination of impact under the California Environmental Quality Act (CEQA), a substantial increase will occur if ambient noise levels are increased by 10 dB or more. An increase from 5-10 dB may be substantial. Factors to be considered in determining the significance of increases from 5-10 dB include:*
>
> - *the resulting noise levels*
> - *the duration and frequency of the noise*
> - *the number of people affected*
> - *the land use designation of the affected receptor sites*
> - *public reactions/controversy as demonstrated at workshops/hearings, or by correspondence*
> - *prior CEQA determinations by other agencies specific to the project*

Proposed General Plan Policies

Under the City's proposed General Plan Update, the following policy S-5d will apply when evaluating substantial noise increases:

In making a determination of impact under the California Environmental Quality Act (CEQA), a substantial increase will occur if ambient noise levels have a substantial increase. Generally, a 3 dB increase in noise

levels is barely perceptible, and a 5 dB increase in noise levels is clearly perceptible. Therefore, increases in noise levels shall be considered to be substantial when the following occurs:

- *When existing noise levels are less than 60 dB, a 5 dB increase in noise will be considered substantial;*
- *When existing noise levels are between 60 dB and 65 dB, a 3 dB increase in noise will be considered substantial;*
- *When existing noise levels exceed 65 dB, a 1.5 dB increase in noise will be considered substantial.*

Additional or alternative criteria can be used for determining a substantial increase in noise levels. For instance, if the overall increase in noise levels occurs where no noise-sensitive uses are located, then the City may use their discretion in determining if there is any impact at all. In such a case, the following alternative factors may be used for determining a substantial increase in noise levels:

- *the resulting noise levels;*
- *the duration and frequency of the noise;*
- *the number of people affected;*
- *conforming or non-conforming land uses;*
- *the land use designation of the affected receptor sites;*
- *public reactions or controversy as demonstrated at workshops or hearings, or by correspondence; and*
- *prior CEQA determinations by other agencies specific to the project.*

IMPACTS AND MITIGATION MEASURES

IMPACT 1: WOULD THE PROJECT GENERATE A SUBSTANTIAL TEMPORARY OR PERMANENT INCREASE IN AMBIENT NOISE LEVELS IN THE VICINITY OF THE PROJECT IN EXCESS OF STANDARDS ESTABLISHED IN THE LOCAL GENERAL PLAN OR NOISE ORDINANCE, OR APPLICABLE STANDARDS OF OTHER AGENCIES?

According to Tables 3.10-4 and 3.10-5, the maximum noise level increase due to project traffic is predicted to be 1.1 dBA L_{dn} This is less than the +1.5 dBA to +5 dBA test of significance applied under the new General Plan polices and less than the +5-10 dBA test of significance under the existing General Plan. Therefore, this would be a ***less than significant*** impact.

OPERATIONAL NOISE INCREASES

As shown in Figure 3.10-2, the project is predicted to expose nearby residence to noise levels up to 40 dBA Leq, during both daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) hours. The predicted project noise levels would meet the City of Manteca daytime and nighttime noise standards for stationary non-transportation noise sources of 50 dBA, L_{eq} and 45 dBA, L_{eq}, respectively. Therefore, this would be a ***less than significant*** impact.

It should be noted that maximum noise levels generated by the residential HVAC units and on-site vehicle circulation are predicted to be 20 dBA, or less, than the average (L_{eq}) values. The City of Manteca maximum (L_{max}) nighttime noise level standard is 65 dBA Lmax, which is 20 dBA higher than the L_{eq} standard. Therefore, where average noise levels are in compliance with the L_{eq} standards, maximum noise levels will also meet the County's standards. Based upon the predicted noise levels of 40 dBA, L_{eq} at the nearest sensitive receptor, the predicted maximum noise levels would be 60 dBA, L_{max} and comply with the City maximum standards.

CONSTRUCTION NOISE

During the construction of the project, including roads, water, sewer lines, and related infrastructure, noise from construction activities would add to the noise environment in the project vicinity. Existing receptors adjacent to the proposed construction activities are located east of the site, across South Airport Way.

As indicated in Table 3.10-6, activities involved in construction would generate maximum noise levels ranging from 82 to 96 dB L_{max} at a distance of 50 feet. The nearest receptor to the east is located approximately 200 feet to over 900 feet from project construction. At this distance construction noise would attenuate to 70-84 dBA L_{max}. Existing noise levels measured along South Airport Way, at a similar setback distance, were found to be 74-85 dBA L_{max}. Therefore, construction noise is predicted to be within the range of existing noise levels.

Noise would also be generated during the construction phase by increased truck traffic on area roadways. A significant project-generated noise source would be truck traffic associated with

transport of heavy materials and equipment to and from construction sites. This noise increase would be of short duration and would likely occur primarily during daytime hours.

Construction activities would be temporary in nature and are exempt from noise regulation during the hours of 7:00 AM to 7:00 PM, as outlined in the City's Municipal Code:

> **17.58.050 D. Exempt Activities**
>
> 8. Construction activities when conducted as part of an approved Building Permit, except as prohibited in Subsection 17.58.050(E)(1) (Prohibited Activities) below.
>
> **17.58.050 E. Prohibited Activities**
>
> 1. Construction Noise. Operating or causing the operation of tools or equipment on private property used in alteration, construction, demolition, drilling, or repair work daily between the hours of 7:00 p.m. and 7:00 a.m., so that the sound creates a noise disturbance across a residential property line, except for emergency work of public service utilities.

Therefore, with implementation of MM 3.10-1, temporary construction noise impacts would be reduced to less than significant.

MITIGATION MEASURE(S)

- ***Mitigation Measure 1(a):*** *Construction activities shall adhere to the requirements of the City of Manteca Municipal Code with respect to hours of operation. This requirement shall be noted in the improvements plans prior to approval by the City's Public Works Department.*
- ***Mitigation Measure 2(b):*** *All equipment shall be fitted with factory equipped mufflers, and in good working order. This requirement shall be noted in the improvements plans prior to approval by the City's Public Works Department.*

Implementation of mitigation measures 1(a) and 1(b) would help to reduce construction-generated noise levels. With mitigation, this impact would be considered ***less-than-significant***.

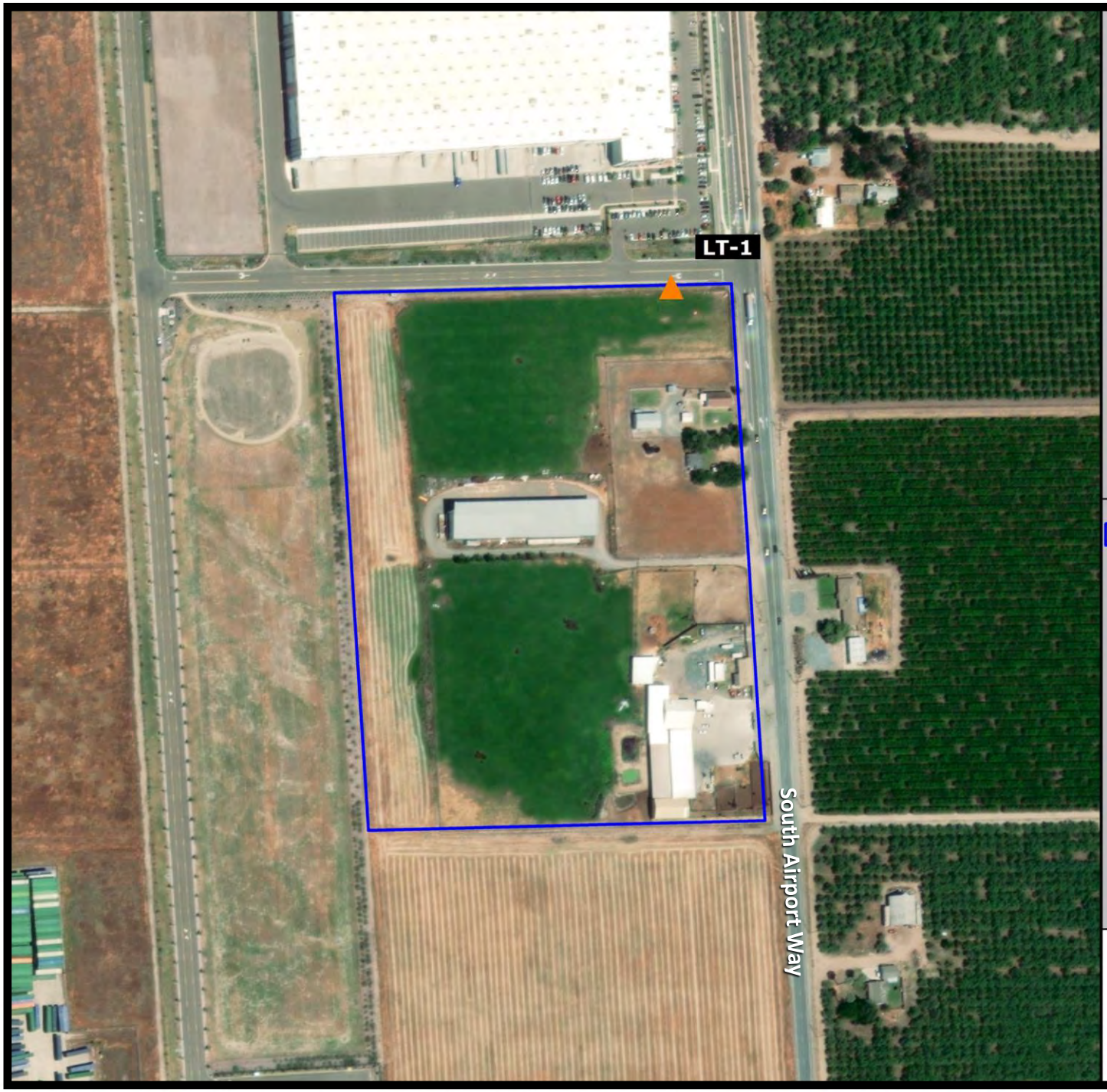
IMPACT 2: WOULD THE PROJECT GENERATE EXCESSIVE GROUNDBORNE VIBRATION OR GROUNDBORNE NOISE LEVELS?

Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception. Building damage can take the form of cosmetic or structural.

The Table 3.10-7 data indicates that construction vibration levels anticipated for the project are less than the 0.2 in/sec threshold at distances of 26 feet. Sensitive receptors which could be impacted by construction related vibrations, especially vibratory compactors/rollers, are located further than 26 feet from typical construction activities. At these distances construction vibrations are not predicted to exceed acceptable levels. Additionally, construction activities would be temporary in nature and would likely occur during normal daytime working hours. This is a **less-than-significant** impact and no mitigation is required.

IMPACT 3: FOR A PROJECT LOCATED WITHIN THE VICINITY OF A PRIVATE AIRSTRIP OR AN AIRPORT LAND USE PLAN OR, WHERE SUCH A PLAN HAS NOT BEEN ADOPTED, WITHIN TWO MILES OF A PUBLIC AIRPORT OR PUBLIC USE AIRPORT, WOULD THE PROJECT EXPOSE PEOPLE RESIDING OR WORKING IN THE PROJECT AREA TO EXCESSIVE NOISE LEVELS?

There are no airports within two miles of the project vicinity. Therefore, this impact is not applicable to the proposed project.



Airport Business Center 2

City of Manteca, California

Figure 3.10-1

Noise Measurement Sites

Legend

Project Site

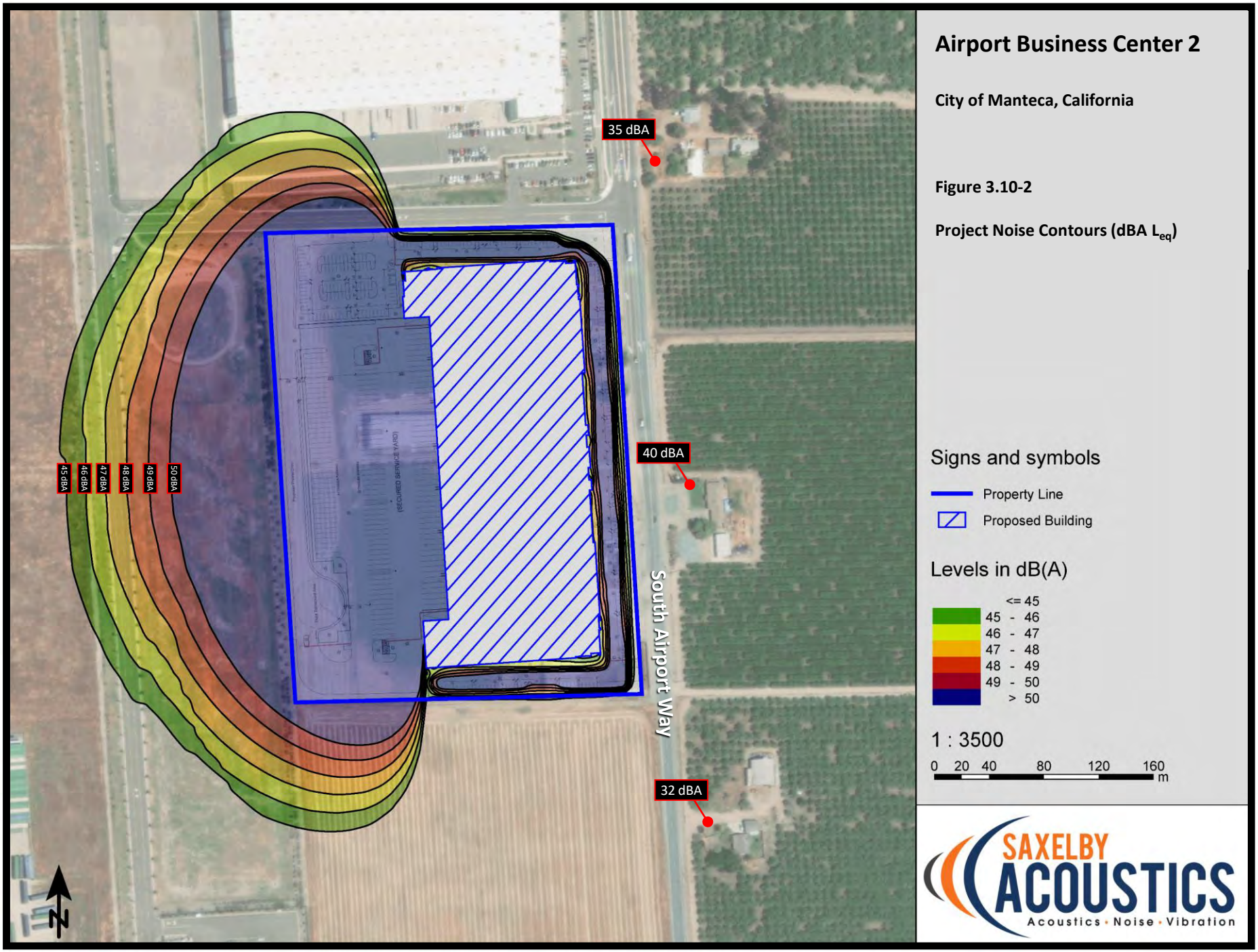
Noise Measurement Site - Long Term

0 ft 500 ft 1500 ft 2500 ft 3500 ft

Projection: UTM Zone 10 / WGS84 / meters
Rev. Date: 05/16/2022

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35 dBA
40 dBA
32 dBA
45 dBA
46 dBA
47 dBA
48 dBA
49 dBA
50 dBA
South Airport Way
N
Airport Business Center 2
City of Manteca, California
Figure 3.10-2
Project Noise Contours (dBA L_{eq})
Signs and symbols
Property Line
Proposed Building
Levels in dB(A)
<= 45
45 - 46
46 - 47
47 - 48
48 - 49
49 - 50
> 50
1 : 3500
0 20 40 80 120 160
m
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Appendix A: Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
ASTC	Apparent Sound Transmission Class. Similar to STC but includes sound from flanking paths and correct for room reverberation. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by +5 dBA and nighttime hours weighted by +10 dBA.
DNL	See definition of Ldn.
IIC	Impact Insulation Class. An integer-number rating of how well a building floor attenuates impact sounds, such as footsteps. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz (Hz).
Ldn	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
Leq	Equivalent or energy-averaged sound level.
Lmax	The highest root-mean-square (RMS) sound level measured over a given period of time.
L(n)	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L50 is the sound level exceeded 50% of the time during the one-hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
NIC	Noise Isolation Class. A rating of the noise reduction between two spaces. Similar to STC but includes sound from flanking paths and no correction for room reverberation.
NNIC	Normalized Noise Isolation Class. Similar to NIC but includes a correction for room reverberation.
Noise	Unwanted sound.
NRC	Noise Reduction Coefficient. NRC is a single-number rating of the sound-absorption of a material equal to the arithmetic mean of the sound-absorption coefficients in the 250, 500, 1000, and 2,000 Hz octave frequency bands rounded to the nearest multiple of 0.05. It is a representation of the amount of sound energy absorbed upon striking a particular surface. An NRC of 0 indicates perfect reflection; an NRC of 1 indicates perfect absorption.
RT60	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 Sabin.
SEL	Sound Exposure Level. SEL is a rating, in decibels, of a discrete event, such as an aircraft flyover or train pass by, that compresses the total sound energy into a one-second event.
SPC	Speech Privacy Class. SPC is a method of rating speech privacy in buildings. It is designed to measure the degree of speech privacy provided by a closed room, indicating the degree to which conversations occurring within are kept private from listeners outside the room.
STC	Sound Transmission Class. STC is an integer rating of how well a building partition attenuates airborne sound. It is widely used to rate interior partitions, ceilings/floors, doors, windows and exterior wall configurations. The STC rating is typically used to rate the sound transmission of a specific building element when tested in laboratory conditions where flanking paths around the assembly don't exist. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
Simple Tone	Any sound which can be judged as audible as a single pitch or set of single pitches.

Appendix B: Continuous Ambient Noise Measurement Results

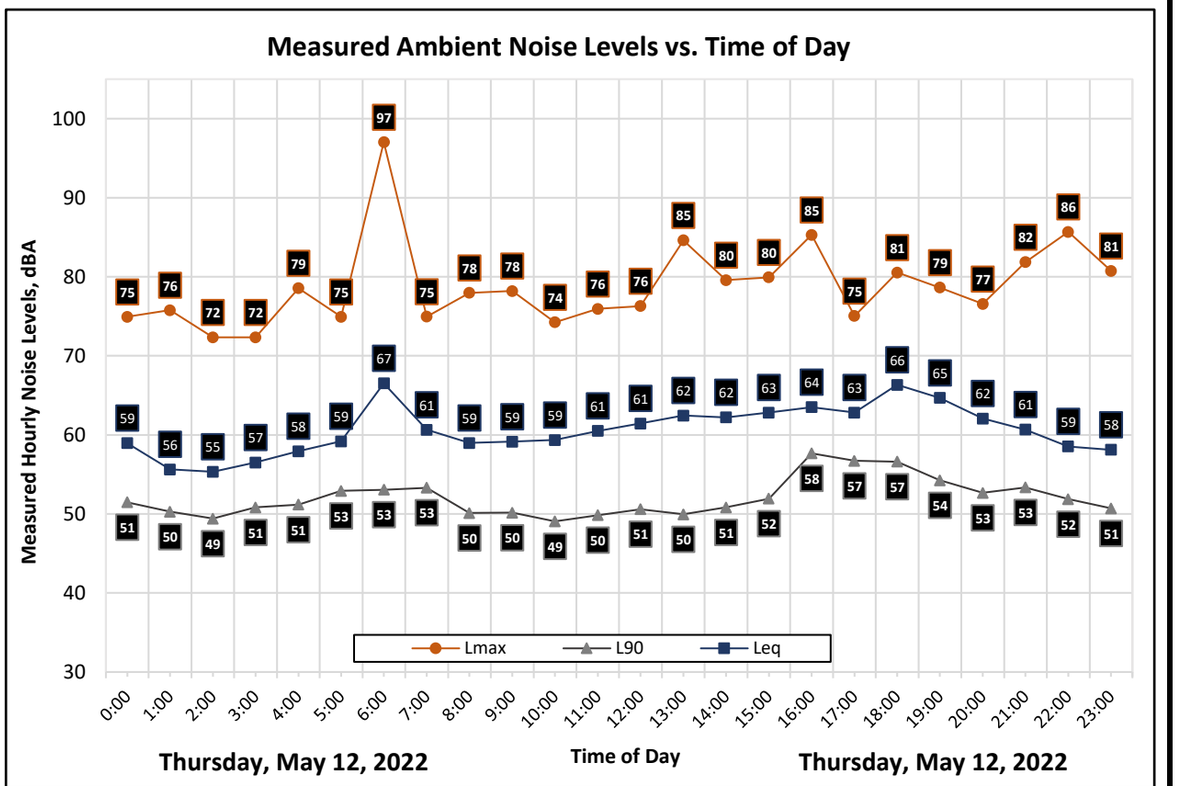


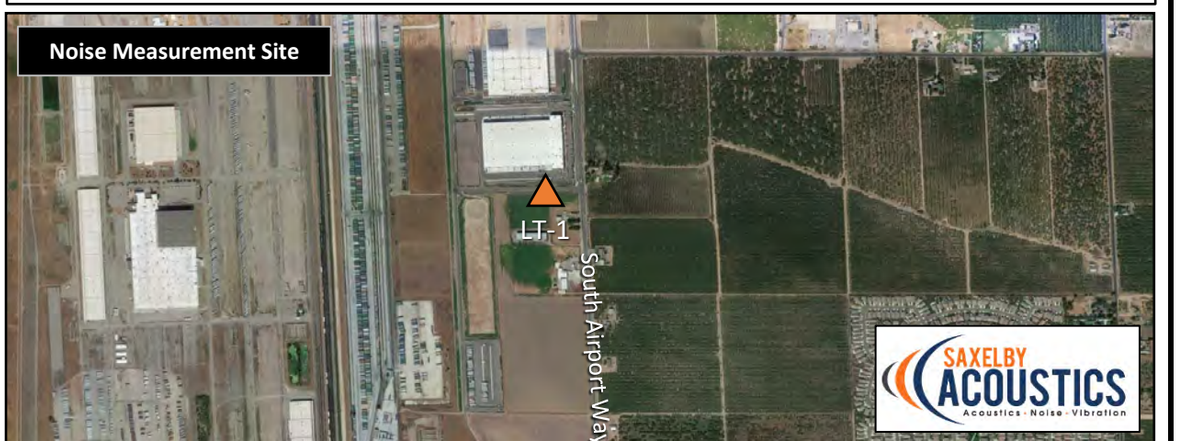
Appendix B1: Continuous Noise Monitoring Results

Site: LT-1
Project: Airport Business Center 2 **Meter:** LDL 820-5
Location: Northern Project Boundary **Calibrator:** CAL200
Coordinates: 37.8440894°, -121.2557458°

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Thursday, May 12, 2022	0:00	59	75	55	51
Thursday, May 12, 2022	1:00	56	76	52	50
Thursday, May 12, 2022	2:00	55	72	52	49
Thursday, May 12, 2022	3:00	57	72	54	51
Thursday, May 12, 2022	4:00	58	79	55	51
Thursday, May 12, 2022	5:00	59	75	56	53
Thursday, May 12, 2022	6:00	67	97	56	53
Thursday, May 12, 2022	7:00	61	75	58	53
Thursday, May 12, 2022	8:00	59	78	56	50
Thursday, May 12, 2022	9:00	59	78	55	50
Thursday, May 12, 2022	10:00	59	74	55	49
Thursday, May 12, 2022	11:00	61	76	56	50
Thursday, May 12, 2022	12:00	61	76	57	51
Thursday, May 12, 2022	13:00	62	85	57	50
Thursday, May 12, 2022	14:00	62	80	58	51
Thursday, May 12, 2022	15:00	63	80	59	52
Thursday, May 12, 2022	16:00	64	85	61	58
Thursday, May 12, 2022	17:00	63	75	61	57
Thursday, May 12, 2022	18:00	66	81	63	57
Thursday, May 12, 2022	19:00	65	79	61	54
Thursday, May 12, 2022	20:00	62	77	58	53
Thursday, May 12, 2022	21:00	61	82	57	53
Thursday, May 12, 2022	22:00	59	86	54	52
Thursday, May 12, 2022	23:00	58	81	54	51

Statistics	Leq	Lmax	L50	L90
Day Average	62	79	58	52
Night Average	60	79	54	51
Day Low	59	74	55	49
Day High	66	85	63	58
Night Low	55	72	52	49
Night High	67	97	56	53
Ldn	67	Day %		75
CNEL	67	Night %		25





Appendix C: Traffic Noise Calculation Inputs and Results



Appendix C-1

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 220411
Description: Airport Business Center 2 - Existing
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	Roth Road	Between Intermodal and Airport Way	9,700	83	0	17	1.0%	16.0%	25	883	0	253	117	54	51.9
2	Roth Road	Between Intermodal and McKinley Ave	9,600	83	0	17	1.0%	16.0%	25	100	0	251	117	54	66.0
3	Roth Road	Between McKinley Ave. and Harlan Road	9,800	83	0	17	1.0%	16.0%	25	1130	0	255	118	55	50.3
4	Roth Road	Between Harlan Rd. and NB I-5 Off/On-Ramps	14,800	83	0	17	1.0%	16.0%	25	808	0	335	156	72	54.3
5	Roth Road	Between NB I-5 Off/On Ramps and SB I-5 Off/On Ramps	8,500	83	0	17	1.0%	16.0%	25	582	0	232	107	50	54.0
6	Airport Way	French Camp Road and Roth Road	7,400	75	0	25	1.0%	3.5%	25	50	0	107	50	23	64.9
7	Airport Way	Roth Road and Lovelace Road	6,700	75	0	25	1.0%	15.4%	55	290	0	359	167	77	61.4
8	Airport Way	Lovelace Rd. and Daisywood Dr.	7,000	75	0	25	1.0%	15.4%	55	90	-5	370	172	80	64.2
9	Airport Way	Pinnacle Dr. and Lathrop Rd.	7,500	75	0	25	1.0%	3.3%	45	155	0	183	85	39	61.1
10	Airport Way	#REF!	8,800	75	0	25	1.0%	9.2%	45	90	0	283	131	61	67.5
11	Airport Way	Lathrop Rd. and Northgate Dr.	9,800	75	0	25	1.0%	9.2%	45	97	0	304	141	65	67.4
12	Airport Way	Northgate Dr. and Louise Ave.	10,500	75	0	25	1.0%	1.0%	45	70	0	189	88	41	66.5
13	Airport Way	Louise Ave. and Crom Ave.	14,800	75	0	25	1.0%	1.0%	45	50	-5	238	110	51	65.2
14	Airport Way	Crom Ave. and Yosemite Ave.	15,600	75	0	25	1.0%	1.0%	45	65	0	246	114	53	68.7
15	Lathrop Road	Union Rd. and Airport Way	16,700	75	0	25	1.0%	8.6%	45	80	0	422	196	91	70.8
16	Lathrop Road	Airpory Way and McKinley Ave.	21,400	75	0	25	1.0%	8.6%	45	1900	0	498	231	107	51.3
17	Lathrop Road	McKinley Ave. and 5th Street	21,000	75	0	25	1.0%	8.6%	45	130	0	492	228	106	68.7
18	Lathrop Road	5th Street and Harlan Rd.	20,600	75	0	25	1.0%	8.6%	45	70	-5	485	225	105	67.6
19	Lathrop Road	Harlan Rd. and NB I-5 Off/On-Ramps	24,500	75	0	25	1.0%	8.6%	45	475	-5	545	253	117	55.9
20	Lathrop Road	Between NB I-5 Off/On Ramps and SB I-5 Off/On Ramps	16,200	75	0	25	1.0%	8.6%	45	965	-5	414	192	89	49.5
21	Spartan Way	SB I-5 Off/On Ramps and Golden Valley Parkway	9,200	82	0	18	1.0%	1.0%	25	1600	-5	66	31	14	34.2
22	Intermodal Way	Roth Road and 5.11 Tactical Building	1,650	82	0	18	1.0%	1.0%	25	1560	0	21	10	5	31.9
23	Intermodal Way	5.11 Tactical Building and Tacical Way	950	82	0	18	1.0%	1.0%	25	1470	0	15	7	3	29.9

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Appendix C-2

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 220411
Description: Airport Business Center 2 - Existing + Project
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	Roth Road	Between Intermodal and Airport Way	9,863	83	0	17	1.0%	16.0%	25	883	0	256	119	55	51.9
2	Roth Road	Between Intermodal and McKinley Ave	9,925	83	0	17	1.0%	16.0%	25	100	0	257	119	55	66.1
3	Roth Road	Between McKinley Ave. and Harlan Road	10,125	83	0	17	1.0%	16.0%	25	1130	0	260	121	56	50.4
4	Roth Road	Between Harlan Rd. and NB I-5 Off/On-Ramps	15,125	83	0	17	1.0%	16.0%	25	808	0	340	158	73	54.4
5	Roth Road	Between NB I-5 Off/On Ramps and SB I-5 Off/On Ramps	8,608	83	0	17	1.0%	16.0%	25	582	0	234	108	50	54.1
6	Airport Way	French Camp Road and Roth Road	7,563	75	0	25	1.0%	3.5%	25	50	0	108	50	23	65.0
7	Airport Way	Roth Road and Lovelace Road	6,918	75	0	25	1.0%	15.4%	55	290	0	367	170	79	61.5
8	Airport Way	Lovelace Rd. and Daisywood Dr.	7,218	75	0	25	1.0%	15.4%	55	90	-5	377	175	81	64.3
9	Airport Way	Daisywood Dr. and Pinnacle Dr.	8,370	75	0	25	1.0%	3.3%	45	155	0	197	91	42	61.6
10	Airport Way	Pinnacle Dr. and Lathrop Rd.	9,670	75	0	25	1.0%	9.2%	45	90	0	301	140	65	67.9
11	Airport Way	Lathrop Rd. and Northgate Dr.	10,181	75	0	25	1.0%	9.2%	45	97	0	312	145	67	67.6
12	Airport Way	Northgate Dr. and Louise Ave.	10,881	75	0	25	1.0%	1.0%	45	70	0	194	90	42	66.6
13	Airport Way	Louise Ave. and Crom Ave.	15,181	75	0	25	1.0%	1.0%	45	50	-5	242	112	52	65.3
14	Airport Way	Crom Ave. and Yosemite Ave.	15,981	75	0	25	1.0%	1.0%	45	65	0	250	116	54	68.8
15	Lathrop Road	Union Rd. and Airport Way	16,972	75	0	25	1.0%	8.6%	45	80	0	427	198	92	70.9
16	Lathrop Road	Airpory Way and McKinley Ave.	21,618	75	0	25	1.0%	8.6%	45	1900	0	501	233	108	51.3
17	Lathrop Road	McKinley Ave. and 5th Street	21,196	75	0	25	1.0%	8.6%	45	130	0	495	230	107	68.7
18	Lathrop Road	5th Street and Harlan Rd.	20,796	75	0	25	1.0%	8.6%	45	70	-5	488	227	105	67.7
19	Lathrop Road	Harlan Rd. and NB I-5 Off/On-Ramps	24,696	75	0	25	1.0%	8.6%	45	475	-5	548	254	118	55.9
20	Lathrop Road	Between NB I-5 Off/On Ramps and SB I-5 Off/On Ramps	16,298	75	0	25	1.0%	8.6%	45	965	-5	415	193	89	49.5
21	Spartan Way	SB I-5 Off/On Ramps and Golden Valley Parkway	9,222	82	0	18	1.0%	1.0%	25	1600	-5	66	31	14	34.3
22	Intermodal Way	Roth Road and 5.11 Tactical Building	1,920	82	0	18	1.0%	1.0%	25	1560	0	23	11	5	32.6
23	Intermodal Way	5.11 Tactical Building and Tacical Way	1,220	82	0	18	1.0%	1.0%	25	1470	0	17	8	4	31.0

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Appendix C-3

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 220411
Description: Airport Business Center 2 - Cumulative
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	Roth Road	Between Intermodal and Airport Way	17,790	83	0	17	1.0%	16.0%	25	883	0	379	176	82	54.5
2	Roth Road	Between Intermodal and McKinley Ave	17,420	83	0	17	1.0%	16.0%	25	100	0	374	173	80	68.6
3	Roth Road	Between McKinley Ave. and Harlan Road	19,380	83	0	17	1.0%	16.0%	25	1130	0	401	186	86	53.3
4	Roth Road	Between Harlan Rd. and NB I-5 Off/On-Ramps	24,600	83	0	17	1.0%	16.0%	25	808	0	470	218	101	56.5
5	Roth Road	Between NB I-5 Off/On Ramps and SB I-5 Off/On Ramps	32,610	83	0	17	1.0%	16.0%	25	582	0	568	263	122	59.8
6	Airport Way	French Camp Road and Roth Road	17,640	75	0	25	1.0%	3.5%	25	50	0	191	88	41	68.7
7	Airport Way	Roth Road and Lovelace Road	19,800	75	0	25	1.0%	15.4%	55	290	0	740	343	159	66.1
8	Airport Way	Lovelace Rd. and Daisywood Dr.	16,010	75	0	25	1.0%	15.4%	55	90	-5	642	298	138	67.8
9	Airport Way	Daisywood Dr. and Pinnacle Dr.	15,980	75	0	25	1.0%	3.3%	45	155	0	303	141	65	64.4
10	Airport Way	Pinnacle Dr. and Lathrop Rd.	24,980	75	0	25	1.0%	9.2%	45	90	0	567	263	122	72.0
11	Airport Way	Lathrop Rd. and Northgate Dr.	22,190	75	0	25	1.0%	9.2%	45	97	0	524	243	113	71.0
12	Airport Way	Northgate Dr. and Louise Ave.	20,840	75	0	25	1.0%	1.0%	45	70	0	299	139	64	69.4
13	Airport Way	Louise Ave. and Crom Ave.	23,300	75	0	25	1.0%	1.0%	45	50	-5	322	149	69	67.1
14	Airport Way	Crom Ave. and Yosemite Ave.	23,180	75	0	25	1.0%	1.0%	45	65	0	321	149	69	70.4
15	Lathrop Road	Union Rd. and Airport Way	21,650	75	0	25	1.0%	8.6%	45	80	0	502	233	108	72.0
16	Lathrop Road	Airpory Way and McKinley Ave.	24,460	75	0	25	1.0%	8.6%	45	1900	0	544	253	117	51.9
17	Lathrop Road	McKinley Ave. and 5th Street	26,030	75	0	25	1.0%	8.6%	45	130	0	567	263	122	69.6
18	Lathrop Road	5th Street and Harlan Rd.	25,410	75	0	25	1.0%	8.6%	45	70	-5	558	259	120	68.5
19	Lathrop Road	Harlan Rd. and NB I-5 Off/On-Ramps	35,350	75	0	25	1.0%	8.6%	45	475	-5	696	323	150	57.5
20	Lathrop Road	Between NB I-5 Off/On Ramps and SB I-5 Off/On Ramps	39,330	75	0	25	1.0%	8.6%	45	965	-5	747	347	161	53.3
21	Spartan Way	SB I-5 Off/On Ramps and Golden Valley Parkway	47,830	82	0	18	1.0%	1.0%	25	1600	-5	199	92	43	41.4
22	Intermodal Way	Roth Road and 5.11 Tactical Building	2,380	82	0	18	1.0%	1.0%	25	1560	0	27	12	6	33.5
23	Intermodal Way	5.11 Tactical Building and Tacical Way	1,780	82	0	18	1.0%	1.0%	25	1470	0	22	10	5	32.7

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Appendix C-4

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 220411
Description: Airport Business Center 2 - Cumulative + Project
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	Roth Road	Between Intermodal and Airport Way	17,953	83	0	17	1.0%	16.0%	25	883	0	381	177	82	54.5
2	Roth Road	Between Intermodal and McKinley Ave	17,745	83	0	17	1.0%	16.0%	25	100	0	378	176	81	68.7
3	Roth Road	Between McKinley Ave. and Harlan Road	19,705	83	0	17	1.0%	16.0%	25	1130	0	406	188	87	53.3
4	Roth Road	Between Harlan Rd. and NB I-5 Off/On-Ramps	24,925	83	0	17	1.0%	16.0%	25	808	0	474	220	102	56.5
5	Roth Road	Between NB I-5 Off/On Ramps and SB I-5 Off/On Ramps	32,718	83	0	17	1.0%	16.0%	25	582	0	569	264	123	59.9
6	Airport Way	French Camp Road and Roth Road	17,803	75	0	25	1.0%	3.5%	25	50	0	192	89	41	68.8
7	Airport Way	Roth Road and Lovelace Road	20,018	75	0	25	1.0%	15.4%	55	290	0	745	346	161	66.1
8	Airport Way	Lovelace Rd. and Daisywood Dr.	16,228	75	0	25	1.0%	15.4%	55	90	-5	648	301	140	67.9
9	Airport Way	Daisywood Dr. and Pinnacle Dr.	16,850	75	0	25	1.0%	3.3%	45	155	0	314	146	68	64.6
10	Airport Way	Pinnacle Dr. and Lathrop Rd.	25,850	75	0	25	1.0%	9.2%	45	90	0	580	269	125	72.1
11	Airport Way	Lathrop Rd. and Northgate Dr.	22,571	75	0	25	1.0%	9.2%	45	97	0	530	246	114	71.1
12	Airport Way	Northgate Dr. and Louise Ave.	21,221	75	0	25	1.0%	1.0%	45	70	0	302	140	65	69.5
13	Airport Way	Louise Ave. and Crom Ave.	23,681	75	0	25	1.0%	1.0%	45	50	-5	325	151	70	67.2
14	Airport Way	Crom Ave. and Yosemite Ave.	23,561	75	0	25	1.0%	1.0%	45	65	0	324	150	70	70.5
15	Lathrop Road	Union Rd. and Airport Way	21,922	75	0	25	1.0%	8.6%	45	80	0	506	235	109	72.0
16	Lathrop Road	Airpory Way and McKinley Ave.	24,678	75	0	25	1.0%	8.6%	45	1900	0	548	254	118	51.9
17	Lathrop Road	McKinley Ave. and 5th Street	26,226	75	0	25	1.0%	8.6%	45	130	0	570	265	123	69.6
18	Lathrop Road	5th Street and Harlan Rd.	25,606	75	0	25	1.0%	8.6%	45	70	-5	561	260	121	68.6
19	Lathrop Road	Harlan Rd. and NB I-5 Off/On-Ramps	35,546	75	0	25	1.0%	8.6%	45	475	-5	698	324	150	57.5
20	Lathrop Road	Between NB I-5 Off/On Ramps and SB I-5 Off/On Ramps	39,428	75	0	25	1.0%	8.6%	45	965	-5	748	347	161	53.3
21	Spartan Way	SB I-5 Off/On Ramps and Golden Valley Parkway	47,852	82	0	18	1.0%	1.0%	25	1600	-5	199	92	43	41.4
22	Intermodal Way	Roth Road and 5.11 Tactical Building	2,650	82	0	18	1.0%	1.0%	25	1560	0	29	13	6	34.0
23	Intermodal Way	5.11 Tactical Building and Tacical Way	2,050	82	0	18	1.0%	1.0%	25	1470	0	24	11	5	33.3

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APPENDIX D: MMRP FOR THE NORTHWEST AIRPORT WAY MASTER PLAN

Mitigation Monitoring and Reporting Program
for the
Northwest Airport Way Master Plan
City of Manteca, San Joaquin County, California

State Clearinghouse No. 2010022024

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October 7, 2010

Table 1: Northwest Airport Way Master Plan Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
2. Agricultural Resources					
MM AG-1: At the time building permits are sought for any Master Plan contemplated use, the project applicant shall pay the required City of Manteca agricultural mitigation fee to help offset the conversion of Important Farmland pursuant to Manteca Municipal Code Chapter 13.42.	Receipt of fees	At the time building permits are sought	City of Manteca Community Development Department		
3. Air Quality/Greenhouse Gas Emissions					
MM AIR-1a: Prior to issuance of grading permits for each Master Plan use, the project applicant shall provide information to the City of Manteca describing the methods by which the following measures will be complied with: • Off-road equipment used onsite shall achieve a fleet average emissions equal to or less than the Tier II emissions standard of 4.8 grams of NO_x per horsepower hour. This can be achieved through any combination of engine standards. Tier II emission standards are set forth in Section 2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 Code of Federal Regulations. • Construction equipment shall be properly maintained at an offsite location; maintenance shall include proper tuning and timing of engines. Equipment maintenance records and data sheets of equipment design specifications shall be kept on-site during construction. • Onsite construction equipment shall not idle for more than 5 minutes in any one hour. • During the building phase, onsite electrical hook ups shall be provided for electric construction tools including saws, drills and compressors, to eliminate the need for diesel powered electric generators. • Construction workers shall be encouraged to carpool to and from the construction site to the greatest extent practical. Workers shall be informed in writing and a letter shall be placed on file in the City office documenting efforts to carpool.	Notes on construction plans; submittal of documentation	Prior to issuance of grading permits for each Master Plan use	City of Manteca Community Development Department & Public Works Engineering		

Table 1 (cont.): Northwest Airport Way Master Plan Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
MM AIR-1b: During the architectural coating phase for all Master Plan uses, paints with a volatile organic compound content less than 10 grams per liter shall be used.	Notes on construction plans; site inspection	During the architectural coating phase for all Master Plan uses	City of Manteca Community Development Department Building Division		
MM AIR-1c: Prior to issuance of building permits for each Master Plan building, the project applicant shall demonstrate compliance with all applicable requirements of San Joaquin Valley Air Pollution Control District, Rule 9510 via the submittal of a Rule 9510 Implementation Plan to the City of Manteca for review and approval. The implementation plan shall achieve a 33-percent reduction in NO_x and a 45-percent reduction in PM_{10} over the first 10 years of operations through the use of onsite emissions reduction measures or through the payment of offsite mitigation fees to the SJVAPCD for purchase of emission reductions. The requirements of the approved implementation plan shall be incorporated into the proposed project.	Submittal of documentation	Prior to issuance of building permits for each Master Plan building	City of Manteca Community Development Department		
MM AIR-1d: Prior to approval of the final site plan for each Master Plan building that would receive 10 more truck deliveries per week, the project applicant shall demonstrate that the following anti-idling measures would be implemented: • Provide available electricity hookups for trucks in the loading dock areas. • Signs shall be posted in dock areas advising drivers that idling shall not occur for more than 3 minutes. • Telephone numbers of the building facilities manager and the California Air Resources Board shall be posted on signs at truck entrances to report idling violations.	Approval of plans	Prior to approval of the final site plan for each Master Plan building that would receive 10 more truck deliveries per week	City of Manteca Community Development Department		

Table 1 (cont.): Northwest Airport Way Master Plan Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
MM AIR-6: Prior to final site plan approval for any Master Plan use that includes food service (i.e., restaurants, cafeterias, etc.), the applicant shall demonstrate compliance with SJVAPCD Rules 4102 (Nuisance) and 4692 (Commercial Charbroiling) to the extent that these rules are applicable. Compliance may entail the installation of kitchen exhaust vents, exhaust filtration systems, or other odor-reduction measures in accordance with accepted engineering practice. The approved plans shall be incorporated into the proposed project.	Approval of plans	Prior to final site plan approval for any Master Plan use that includes food service (i.e., restaurants, cafeterias, etc.)	City of Manteca Community Development Department Building Division		
4. Biological Resources					
MM BIO-1a: If ground clearing or vegetation removal activities occur during the nesting season (February 15 through August 31), then pre-construction surveys for nesting birds shall be conducted in all area suitable for nesting that are located within 250 feet of the Master Plan area. Surveys shall be conducted no more than 15 days prior to the beginning of ground disturbance. If an active nest is located, a 250-foot buffer shall be delineated and maintained around the nest until a qualified biologist has determined that fledging has occurred. Alternatively, CDFG may be consulted to determine if the protective buffer can be reduced based upon individual species responses to disturbance. This mitigation measure does not apply if ground clearing or vegetation removal activities occur outside of the nesting season (September 1 through February 14).	Site inspection; submittal of documentation	If ground clearing or vegetation removal activities occur during the nesting season (February 15 through August 31),	City of Manteca Community Development Department; California Department of Fish and Game		
MM BIO-1b: No more than 30 day prior to the beginning of ground disturbance, a pre-construction survey for burrowing owls shall be conducted by a qualified biologist in general accordance with the Burrowing Owl Survey Protocol and Mitigation Guidelines by the California Burrowing Owl Consortium. Should the surveys be scheduled to occur during the period extending from February 1 through May 1, then surveys shall be conducted	Site inspection; submittal of documentation	No more than 30 day prior to the beginning of ground disturbance	City of Manteca Community Development Department; California Department of Fish and Game		

Table 1 (cont.): Northwest Airport Way Master Plan Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
no more that 15 days prior to the start of ground disturbance. Surveys shall be conducted from 2 hours before sunset to 1 hour after sunset, or from 1 hour before sunrise to 2 hours after sunrise, and shall be conducted during weather conducive to observing owls outside of their burrows. No surveys shall occur during heavy rain, high winds, or dense fog. If occupied burrows are found, mitigation for potential impacts shall follow the guidelines outlined by the Burrowing Owl Survey Protocol and Mitigation Guidelines, including passive relocation.					
MM BIO-2: Prior to issuance of grading permits within any impacted resource area, the project applicant shall obtain all required authorization from agencies with jurisdiction over the drainage canals within the Master Plan area. Such agencies may include but are not limited to the United States Army Corps of Engineers, the California Department of Fish and Game, and the Central Valley Regional Water Quality Control Board. Impacted resources shall be offset through onsite restoration, offsite restoration, or purchase of credits at an agency-approved mitigation bank in the region at no less than a 1:1 ratio.	Submittal of documentation	Prior to issuance of grading permits within any impacted resource area	City of Manteca Community Development Department; United States Army Corps of Engineers, California Department of Fish and Game; Central Valley Regional Water Quality Control Board		
MM BIO-3: Prior to issuance of grading permits, the project applicant shall obtain all required authorization from agencies with jurisdiction over the drainage canals within the Master Plan area. This authorization may involve approvals from the United States Army Corps of Engineers and the Central Valley Regional Water Quality Control Board. Impacted features shall be offset through onsite restoration, offsite restoration, or purchase of credits at an agency-approved mitigation bank in the region at no less than a 1:1 ratio.	Submittal of documentation	Prior to issuance of grading permits	City of Manteca Community Development; United States Army Corps of Engineers, Central Valley Regional Water Quality Control Board Department		

Table 1 (cont.): Northwest Airport Way Master Plan Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
MM BIO-5: Prior to issuance of grading permits for any activities that would remove one or more trees subject to City of Manteca Ordinance 17.19.060, the applicant shall prepare and submit a tree removal and replacement plan to the City of Manteca for review and approval. The plan shall identify all trees proposed for removal and proposed replacement tree species and locations. Replacement shall occur at no less than a 1:1 ratio. All replacement trees shall be no less than a 24-inch box size species.	Approval of plan	Prior to issuance of grading permits for any activities that would remove one or more trees subject to City of Manteca Ordinance 17.19.060	City of Manteca Community Development Department		
MM BIO-6: Prior to issuance of the first grading or building permit for the Master Plan, the project applicant shall obtain coverage under the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan. Coverage shall consist of approval of the Master Plan-specific "Section 8.2.1 (10) Checklist for Unmapped SJMSCP Projects" by the San Joaquin Council of Governments Technical Advisory Committee. The applicant shall pay all required fees to the San Joaquin Council of Governments prior to the commencement of construction activities.	Approval of application; receipt of fees	Prior to issuance of the first grading or building permit for the Master Plan	City of Manteca Community Development Department Planning and building Divisions, Public Works Engineering; San Joaquin Council of Governments		
5. Cultural Resources					
MM CUL-1: If potentially significant historic resources are encountered during subsurface excavation activities for any Master Plan use, all construction activities within a 100-foot radius of the resource shall cease until a qualified archaeologist determines whether the resource requires further study. The City shall require that the applicant include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered resources found during construction shall be recorded on appropriate California Department of Parks and	Site inspection; submittal of documentation	During subsurface excavation activities	City of Manteca Community Development Department Planning and Building Division & Public Works Engineering		

Table 1 (cont.): Northwest Airport Way Master Plan Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
Recreation forms and evaluated for significance in terms of California Environmental Quality Act criteria by a qualified archaeologist. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. If the resource is determined to be significant under CEQA, the City and a qualified archaeologist shall determine whether preservation in place is feasible. Such preservation in place is the preferred mitigation. If such preservation is infeasible, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan for the resource. The archaeologist shall also conduct appropriate technical analyses, prepare a comprehensive written report and file it with the appropriate information center (California Historical Resources Information System), and provide for the permanent curation of the recovered materials.					
MM CUL-2: If potentially significant archaeological resources are encountered during subsurface excavation activities, all construction activities within a 100-foot radius of the resource shall cease until a qualified archaeologist determines whether the resource requires further study. The City shall require that the applicant include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered resources found during construction shall be recorded on appropriate Department of Parks and Recreation forms and evaluated for significance in terms of California Environmental Quality Act criteria by a qualified archaeologist. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. If the resource is	Site inspection; submittal of documentation	During subsurface excavation activities	City of Manteca Community Development Department Planning and Building Division & Public Works Engineering		

Table 1 (cont.): Northwest Airport Way Master Plan Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
determined to be significant under CEQA, the City and a qualified archaeologist shall determine whether preservation in place is feasible. Such preservation in place is the preferred mitigation. If such preservation is infeasible, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan for the resource. The archaeologist shall also conduct appropriate technical analyses, prepare a comprehensive written report and file it with the appropriate information center (California Historical Resources Information System), and provide for the permanent curation of the recovered materials.					
MM CUL-3: In the event that plant or animal fossils are discovered during subsurface excavation activities for the proposed project, all excavation within 50 feet of the fossil shall cease until a qualified paleontologist has determined the significance of the find and provides recommendations in accordance with Society of Vertebrate Paleontology standards. The paleontologist shall notify the City of Manteca to determine procedures to be followed before construction is allowed to resume at the location of the find. If the find is determined to be significant and the City determines that avoidance is not feasible, the paleontologist shall design and implement a data recovery plan consistent with the Society of Vertebrate Paleontology standards. The plan shall be submitted to the City for review and approval. Upon approval, the plan shall be incorporated into the project.	Site inspection; submittal of documentation	During subsurface excavation activities	City of Manteca Community Development Department Planning and Building Division & Public Works Engineering		

Table 1 (cont.): Northwest Airport Way Master Plan Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
MM CUL-4: If previously unknown human remains are encountered during construction activities, Section 7050.5 of the California Health and Safety Code applies, and the following procedures shall be followed: • In the event of an accidental discovery or recognition of any human remains, Public Resource Code Section 5097.98 must be followed. Once project-related ground disturbance begins and if there is accidental discovery of human remains, the following steps shall be taken: • There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the San Joaquin County Coroner's Office is contacted to determine if the remains are Native American and if an investigation into cause of death is required. If the coroner determines the remains are Native American, the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the "most likely descendant" of the deceased Native American. The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.	Site inspection; submittal of documentation	During construction activities	City of Manteca Community Development Department Planning and Building Division & Public Works Engineering		
6. Geology, Soils, and Seismicity					
MM GEO-1: Prior to issuance of building permits for each Master Plan use, the project applicant shall submit a design-level geotechnical study and building plans to the City of Manteca for review and approval. The building plans shall demonstrate that they incorporate all applicable	Approval of plans	Prior to issuance of building permits for each Master Plan use	City of Manteca Community Development Department Building Division		

Table 1 (cont.): Northwest Airport Way Master Plan Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
recommendations of the design-level geotechnical study and comply with all applicable requirements of the most recent version of the California Building Standards Code. A licensed professional engineer shall prepare the plans, including those that pertain to soil engineering, structural foundations, pipeline excavation, and installation. The approved plans shall be incorporated into the proposed project. All onsite soil engineering activities shall be conducted under the supervision of a licensed Geotechnical Engineer or Certified Engineering Geologist.					
7. Hazards and Hazardous Materials					
MM HAZ-1a: Prior to grading activities for any Master Plan use in areas where THP-D has been detected, the applicant shall conduct soil sampling to delineate the horizontal and vertical extent of the TPH-D in order to implement a soil remediation program. Soil remediation shall be conducted in accordance with California Department of Toxic Substances Control (DTSC) guidelines. Contaminated soil shall be excavated and disposed of at an approved disposal facility. Following excavation, confirmation sampling shall be conducted to confirm whether remaining soil meets acceptable applicable regulatory levels. The excavation shall be backfilled with clean soil.	Submittal of documentation	Prior to grading activities for any Master Plan use in areas where THP-D has been detected	City of Manteca Community Development Department, Public Works Engineering		
MM HAZ-1b: Prior to grading activities for any Master Plan use, any onsite wells or septic systems intended to be removed shall be destroyed under permit and inspection with San Joaquin County Environmental Health Department.	Submittal of documentation	Prior to grading activities for any Master Plan use	City of Manteca Community Development Department; San Joaquin County Environmental Health Department		

Table 1 (cont.): Northwest Airport Way Master Plan Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
MM HAZ-1c: Prior to demolition activities of any structures located within the Master Plan area, the project applicant shall retain a certified hazardous waste contractor to determine the presence or absence of building materials or equipment that contains hazardous waste, including asbestos, lead-based paint, mercury, and PCBs. If such substances are found to be present, the contractor shall properly remove and dispose of these hazardous materials in accordance with federal and state law. All removal activities shall be completed prior to commencement of demolition activities.	Submittal of documentation	Prior to demolition activities of any structures located within the Master Plan area	City of Manteca Community Development Department Building Division		
8. Hydrology and Water Quality					
MM HYD-1: Prior to the issuance of grading or building permits for each proposed activities within the Master Plan area, the project applicant shall prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) to the City of Manteca that identifies specific actions and Best Management Practices (BMPs) to prevent stormwater pollution during construction activities. The SWPPP shall identify a practical sequence for BMP implementation, monitoring, and maintenance; site restoration; contingency measures; responsible parties; and agency contacts. The SWPPP shall include but not be limited to the following elements: • Temporary erosion control measures shall be employed for disturbed areas. • Specific measures shall be identified to protect the onsite open drainages during construction of the proposed resort. • Specific measures shall be identified to protect the French Camp Outlet Canal and Drain 3 during any construction activities.	Approval of plan	Prior to the issuance of grading or building permits for each proposed activities within the Master Plan area	City of Manteca Public Works		

Table 1 (cont.): Northwest Airport Way Master Plan Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
• No disturbed surfaces shall be left without erosion control measures in place during the winter and spring months. • Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures. • The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains. • BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the RWQCB to determine adequacy of the measure. • In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season.					
MM HYD-2: Prior to the issuance of building or grading permits for any development activities that occur pursuant to the Master Plan, the project applicant shall submit a stormwater quality control plan to the City of Manteca for review and approval. The plan shall include a detailed drainage plan and identify expected site-specific pollutants and required measures to treat those pollutants before they reach the regional detention basins and, ultimately, the French Camp Outlet Canal and San Joaquin River. The approved measures shall be incorporated	Approval of plan	Prior to the issuance of building or grading permits	City of Manteca Public Works		

Table 1 (cont.): Northwest Airport Way Master Plan Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
into the proposed project. The plan will describe monitoring and performance measures and standards required in order to ensure water quality is adequately protected during operation of all proposed sites within the project area. Examples of stormwater pollution prevention measures and practices to be incorporated into the plan include but are not limited to: • Strategically placed bioswales and landscaped areas that promote percolation of runoff • Pervious pavement • Roof drains that discharge to landscaped areas • Trash enclosures with screen walls and roofs • Stenciling on storm drains • Curb cuts in parking areas to allow runoff to enter landscaped areas • Rock-lined areas along landscaped areas in parking lots • Catch basins • Oil/water separators • Regular sweeping of parking areas and cleaning of storm drainage facilities • Employee training to inform maintenance personnel of stormwater pollution prevention measures					

Table 1 (cont.): Northwest Airport Way Master Plan Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
MM HYD-4: Prior to the issuance of building or grading permits for the proposed project, the project applicant shall submit a stormwater quality control plan for the project as a whole to the City of Manteca for review and approval. The plan shall include a detailed drainage plan that demonstrates attainment of pre-project runoff requirements prior to release at the outlet canal and describes the volume reduction measures and treatment controls used to reach attainment. The drainage plan shall identify all expected flows from the project area and the location, size, and type of facilities used to retain and treat the runoff volumes and peak flows to meet pre-project conditions. The approved drainage plan shall be incorporated into the proposed project.	Approval of plan	Prior to the issuance of building or grading permits	City of Manteca Public Works		
MM HYD-5a: Prior to the issuance of grading or building permits, the project applicant must revisit the status of the provisionally accredited levees providing 100-year level of flood protection to the Master Plan area to determine it is still the case and the Master Plan remains outside of the 100-year flood hazard.	Submittal of documentation	Prior to the issuance of grading or building permits	City of Manteca Community Development Department & Public Works		
MM HYD-5b: Prior to the issuance of grading permits, the project applicant shall either demonstrate that the developed portions of the Master Plan are outside of the anticipated 200-year flood hazard area or incorporate measures into the Master Plan to achieve a 200-year level of flood protection for any site installations that will occur in 2012 or later.	Submittal of documentation	Prior to the issuance of grading permits	City of Manteca Community Development Department & Public Works		

Table 1 (cont.): Northwest Airport Way Master Plan Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
10. Noise					
MM NOI-1: During construction activities for all Master Plan uses, the applicant shall require its construction contractors to adhere to the following noise attenuation requirements: • Construction activities shall be limited to the hours between 7 a.m. to 8 p.m. daily. The City of Manteca Director of Public Works shall have the discretion to permit construction activities to occur outside of allowable hours if compelling circumstances warrant such an exception (e.g., weather conditions necessary to pour concrete). • All construction equipment shall use noise-reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer. If no noise-reduction features were installed by the manufacturer, then the contractor shall require that at least a muffler be installed on the equipment. • Construction staging and heavy equipment maintenance activities shall be performed a minimum distance of 300 feet from the nearest residence, unless safety or technical factors take precedence (e.g., an equipment breakdown). • A 10-foot-high construction noise barrier shall be installed along the edge of the Master Plan area within 300 feet of any offsite residence prior to start of grading activities. The noise barrier shall either be constructed of a minimum 0.5-inch plywood or utilize acoustical blankets with a minimum Sound Transmission Class of 12. The barrier shall remain in place until noise intensive aspects of construction are completed.	Notes on construction plans; site inspection	During construction activities for all Master Plan uses	City of Manteca Community Development Department Building Division & Public Works		

Table 1 (cont.): Northwest Airport Way Master Plan Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
MM NOI-4: During Master Plan operations, the use of street sweepers and mechanical landscape maintenance equipment (lawnmowers, leaf blowers, etc.) shall be prohibited between the hours of 10 p.m. and 7 a.m.	Site inspection	During Master Plan operations	City of Manteca Community Development Department		
11. Public Services and Utilities					
MM PSU-1: Prior to issuance of building permits for any Master Plan uses, the project applicant shall provide the City of Manteca will all applicable fire protection development fees in accordance with the latest adopted fee schedule.	Receipt of fees	Prior to issuance of building permits for any Master Plan uses	City of Manteca Community Development Department		
MM PSU-3a: Prior to issuance of building permits for each Master Plan use, the applicant shall prepare and submit documentation to the City of Manteca for review and approval identifying a non-potable irrigation system that is separate from the potable water systems. The non-potable irrigation system shall use non-potable well water until recycled water is available, at which point it shall be converted to use recycled water.	Submittal of documentation	Prior to issuance of building permits for each Master Plan use	City of Manteca Community Development Department & Public Works		
MM PSU-3b: Prior to issuance of building permits for each Master Plan use, the applicant shall prepare and submit documentation to the City of Manteca for review and approval identifying that all appropriate and feasible water conservation measures are incorporated into the proposed use(s). The approved measures shall be incorporated into the final development plans. Examples of water conservation measures include but are not limited to: • Drought-tolerant landscaping or xeriscaping • Water efficient irrigation systems (drip irrigation,	Submittal of documentation	Prior to issuance of building permits for each Master Plan use	City of Manteca Community Development Department		

Table 1 (cont.): Northwest Airport Way Master Plan Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
bubbler/soaker systems, hydrozones, evapotranspiration controllers, etc.) • Sensor-activated low-flow fixtures (e.g., faucets, urinals, and toilets)					
MM PSU-6a: Prior to issuance of building permits for any building developed pursuant to the Master Plan, the project applicant shall retain a qualified contractor to perform construction and demolition debris recycling. Following the completion of construction activities, the project applicant shall provide documentation to the satisfaction of the City of Manteca demonstrating that construction and demolition debris was recycled.	Submittal of documentation	Prior to issuance of building permits for any building developed pursuant to the Master Plan	City of Manteca Community Development Department		
MM PSU-6b: Prior to issuance of building permits for each building developed pursuant to the Master Plan, the project applicant shall provide information to the City of Manteca describing the methods by which recycling and waste diversion activities shall be achieved. This information shall include but is not limited to the type and location of facilities necessary to collect and store recyclable materials, contractors who would pick-up recyclable and reusable materials, and how recycling and waste diversion activities would be integrated into operational practices. To the extent feasible, centralized recycling facilities are encouraged to enhance the ease and efficiency of such practices. The approved facilities and practices shall be incorporated into the uses envisioned by the Master Plan.	Approval of plan	Prior to issuance of building permits for each building developed pursuant to the Master Plan	City of Manteca Community Development Department		

Table 1 (cont.): Northwest Airport Way Master Plan Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
12. Transportation					
MM TRANS-1: Prior to issuance of building permits for each Master Plan use, the applicant shall pay all transportation-related fees in accordance with the latest adopted fee schedule at the time permits are sought. Such fees shall include, but not be limited to, the City of Manteca Public Facilities Implementation Plan fee and the San Joaquin County Regional Transportation Impact Fee.	Receipt of fees	Prior to issuance of building permits for each Master Plan use	City of Manteca Community Development Department Building Division		
MM TRANS-2a: Prior to issuance of building permits for each Master Plan use, the applicant shall provide fees to the City of Manteca for the installation of signals at the I-5 Northbound Ramps/Roth Road and I-5 Southbound Ramps/Roth Road intersections, provided that fee collection mechanism exists. Fee amounts shall be calculated in accordance with equitable share methodology. This mitigation measure shall be superseded by Mitigation Measure TRANS-1 if no fee collection mechanism exists for this improvement at the time building permits are sought.	Receipt of fees	Prior to issuance of building permits for each Master Plan use	City of Manteca Community Development Department & Public Works		
MM TRANS-2b: Prior to issuance of building permits for each Master Plan use, the applicant shall provide fees to the City of Manteca for improvements to the Roth Road/Harland Road intersection, provided that fee collection mechanism exists. The improvements shall consist of the installation of a signal and widening the westbound approach to include left-turn lane, through lane, and shared through/right lane. Fee amounts shall be calculated in accordance with equitable share methodology. This mitigation measure shall be superseded by Mitigation Measure TRANS-1 if no fee collection mechanism exists for this improvement at the time building permits are sought.	Receipt of fees	Prior to issuance of building permits for each Master Plan use	City of Manteca Community Development Department		

Table 1 (cont.): Northwest Airport Way Master Plan Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
MM TRANS-4a: Prior to site plan review for each Master Plan use, the applicant shall consult with the City of Manteca Community Development Department about appropriate frontage improvements. All necessary frontage improvements shall be depicted on the final site plan and implemented as part of site development.	Approval of plan	Prior to site plan review for each Master Plan use	City of Manteca Community Development Department & Public Works		
MM TRANS-4b: Prior to site plan review for each Master Plan use, the applicant shall consult with the City of Manteca Community Development Department and public Works about the following roadway access issues listed below. The access evaluations shall be performed in accordance with the City's Transportation Impact Study Guidelines. All necessary improvements shall be depicted on the final site plan and implemented as part of site development. Issues include but are not limited to: • Need for traffic signals at driveways • Traffic signal coordination and installation of associated signal conduits • Truck traffic volumes at driveways and associated lane storage requirements, right-turn deceleration needs, and curb return radii • Coordination and accommodation of driveways for future projects on the opposite side of the street • Pavement thickness	Approval of plan	Prior to site plan review for each Master Plan use	City of Manteca Community Development Department & Public Works		

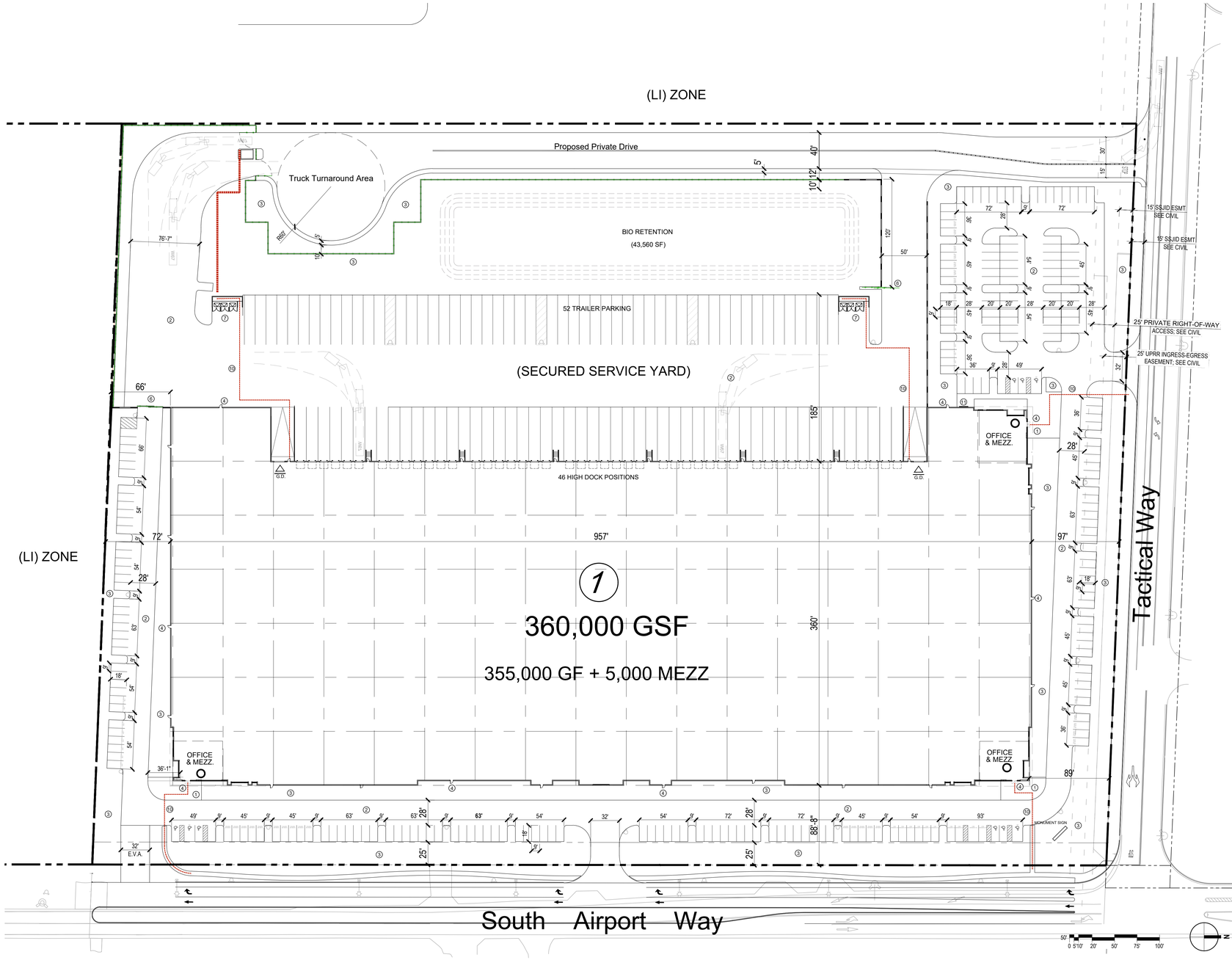
Table 1 (cont.): Northwest Airport Way Master Plan Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
MM TRANS-6a: Prior to site plan review for each Master Plan light industrial use, the applicant shall consult with the City of Manteca Community Development Department, City of Manteca Public Works, Manteca Transit, and the San Joaquin Regional Transit District about the inclusion of appropriate transit facilities (turnouts, shelters, etc.) or services (e.g., an employee shuttle). If transit facilities are deemed to be necessary, they shall be provided on the final site plan. If transit services are deemed to be necessary, the applicant shall prepare a service plan and submit it to the City of Manteca for review and approval. The approved plan shall be incorporated into the project. To the extent feasible, transit facilities and services shall be coordinated among Master Plan uses to maximize efficiency and effectiveness.	Approval of plan	Prior to site plan review for each Master Plan light industrial use	City of Manteca Community Development Department & Public Works		
MM TRANS-6b: Prior to site plan review for each Master Plan light industrial use, the applicant shall consult with the City of Manteca Community Development Department about the inclusion of appropriate bicycle facilities (racks, lockers, etc.). If bicycle facilities are deemed to be necessary, such facilities shall be provided on the final site plan.	Approval of plan	Prior to site plan review for each Master Plan light industrial use	City of Manteca Community Development Department		
MM TRANS-6c: Prior to site plan review for each Master Plan light industrial use, the applicant shall consult with the City of Manteca Community Development Department about the inclusion of appropriate pedestrian facilities. If pedestrian facilities are deemed to be necessary, such facilities shall be provided on the final site plan.	Approval of plan	Prior to site plan review for each Master Plan light industrial use	City of Manteca Community Development Department		

Table 1 (cont.): Northwest Airport Way Master Plan Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
MM TRANS-6d: Prior to site plan review for the Master Plan community commercial use, the applicant shall prepare and submit plans to the City of Manteca demonstrating access and facilities for public transit, bicycles, and pedestrians. Public transit facilities shall consist of at least one bus turnout with shelter, lighting, trash receptacle, and direct pedestrian connection to the community commercial center. Bicycle facilities shall consist of racks near building entrances that provide storage equivalent to 2 percent of the minimum Municipal Code parking requirement. Pedestrian facilities shall consist of sidewalks along street frontages and direct connections between buildings. The approved facilities shall be incorporated in the community commercial center plans.	Approval of plan	Prior to site plan review for the Master Plan community commercial use	City of Manteca Community Development Department & Public Works		
MM TRANS-7: Prior to issuance of grading permits for each Master Plan use, the applicant shall submit a Construction Traffic Control Plan to the City of Manteca for review and approval. The plan shall identify the timing and routing of all major construction equipment and trucking to avoid potential traffic congestion and delays on the local street network. The plan shall encourage the use of Interstate 5 (I-5), Roth Road, Airport Way, and Lathrop Road wherever practical. Anticipated temporary road closures should be identified, along with safety measures and detours. If necessary, construction equipment and materials deliveries shall be limited to off-peak hours to avoid conflicts with local traffic circulation. The plan shall also identify suitable locations for construction worker parking.	Approval of plan	Prior to issuance of grading permits for each Master Plan use	City of Manteca Public Works		

APPENDIX E: PLAN SET



GRAPHIC LEGEND:

- = OFFICE ENTRY
- G.D. = GRADE DOOR (14'X14')
- = A.D.A. ACCESSIBLE PRKG.
- = PROPERTY LINE (SEE CIVIL)
- = DOCK DOOR & LEVELER
- = CANOPY OR OVERHANG
- = CENTERLINE OR GRID LINE
- = EASEMENT (SEE CIVIL)
- = TRASH ENCLOSURE W/ SOLID ROOF A.D.A ACCESIBLE
- = WB-67' TRACTOR TRAILER
- = ADA PATH OF TRAVEL
- = 12' X 55' TRAILER PARKING
- = LIGHT STANDARD LUMINAIR N.T.S. MUST BE FULLY SHIELDED SEC. 19.7.8.E.2.a.4
- = WALL PACK WITH CUT-OFF N.T.S. SHALL NOT EXCEED 18' ABOVE GRADE

OCCUPANCY CLASSIFICATION:

BUILDING: BS1, F1
CONSTRUCTION TYPE: IIB

KEY NOTES: (#)

1. PEDESTRIAN PAVING (SEE CIVIL & LANDSCAPE)
2. CONCRETE VEHICULAR PAVING (SEE CIVIL)
3. LANDSCAPE AREA (SEE LANDSCAPE)
4. ACCESS DOOR OR EMERGENCY ACCESS DOOR
5. STEEL TUBULAR FENCE (8' HEIGHT)
6. AUTOMATIC ROLLING GATE (8'-HEIGHT)
7. TRASH ENCLOSURE (ADA COMPLIANT)
8. PROVIDE KNOX BOX (LOCATION PER FIRE DEPT.)
9. ADA RAMP (AS REQUIRED)
10. ADA PATH OF TRAVEL
11. BIKE RACK (PROVIDE 8 BIKE PARKING SPACES)

PARKING STALL SIZES:

STANDARD PARKING STALL -	9' X 18'
A.D.A. (HANDICAP) STALLS -	9' X 18'
	12' X 18' (VAN)

PARKING REQUIREMENTS

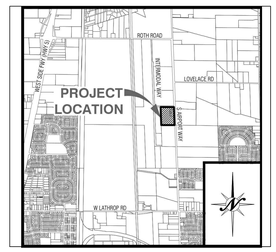
WAREHOUSE: 0.5/1000

ZONING / LAND USE:

EXISTING GENERAL PLAN DESIGNATION: = LI
EXISTING : - VACANT
PROPOSED: - INDUSTRIAL
SPECIFIC PLAN : - CENTER POINT SPECIFIC PLAN

MAXIMUM BUILDING HEIGHT

MAXIMUM FLOOR AREA RATIO



VICINITY MAP
NOT TO SCALE

SHEET DESCRIPTION:

A1	SITE PLAN & PROJECT DATA
A2	TRUCK INGRESS AND EGRESS FROM SITE
A3	CONCEPTUAL FLOOR PLAN
A4	CONCEPTUAL ELEVATIONS
A5	CONCEPTUAL COLOR ELEVATIONS
A6	COLOR AND MATERIAL BOARD
A7	WALL & FENCE PLAN
A8	SITE PHOTOS BOARD
A9	CONCEPTUAL RENDERED VIEW
C1.1	COVER SHEET
C1.2	STREET CROSS SECTIONS
C2.1	TOPOGRAPHIC AND DEMOLITION PLAN
C3.1	DIMENSION AND PAVING PLAN
C4.1	GRADING AND DRAINAGE PLAN
C5.1	COMPOSITE UTILITY AND STORMWATER QUALITY PLAN
E1	PHOTOMETRIC STUDY
L1	CONCEPTUAL LANDSCAPE PLAN

TEAM PLAYERS:

APPLICANT/OWNER
GREENLAW PARTNERS
18301 VON KARMAN AVE STE. 250
IRVINE, CA 92612
CONTACT: ROB MITCHELL
(CELL) 714-749-6508

OWNER REPRESENTATIVE
A MICHAEL SOUZA, ALC,CRE
CEO,SOUZA REALTY & DEVELOPMENT
672 W. 11TH ST. STE. 110
TRACY, CA 95376
(TEL) 209-835-8330

ARCHITECT
AO ARCHITECTS
144 NORTH STREET
ORANGE, CA 92866
CONTACT: STEPHEN PRZYBYLOWSKI
717- 417-1122
stephenp@aoarchitects.com

CIVIL ENGINEER
NORTHSTAR ENGINEERING GROUP, INC.
620 12TH ST.
MODESTO, CA 95354
CONTACT: COREY WALKER
(TEL) 209-524-3525 EXT. 132

LANDSCAPE
SPLA
2883 VIA RANCHEROS WAY
FALLBROOK, CA 92028
CONTACT: SCOTT PETERSON
(TEL) 760-842-8993

PHOTOMETRIC
HCS ENGINEERING, INC.
4512 FEATHER RIVER DR, #F
STOCKTON, CA 95219
CONTACT: RICHARD C. SMITH, PE
(TEL) 209-478-8270

MANTECA PLANNING
CONTACT: MALLORIE FENRICH, PLANNER
(TEL) 209-456-8500
mfenrich@ci.manteca.ca.us

ASSESSOR'S PARCEL NUMBER:

A.P.N.: 198-200-013

LEGAL DESCRIPTION:

The Land referred to herein below is situated in the City of Manteca, County of San Joaquin, State of California, and is described as follows:

PARCEL A:

RESULTANT PARCEL 4 AS DESCRIBED IN THAT CERTAIN NOTICE OF LOT LINE ADJUSTMENT RECORDED DECEMBER 22, 2008 AS INSTRUMENT NO. 2008-181141, OFFICIAL RECORDS OF SAN JOAQUIN COUNTY AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

ALL OF THE LAND DEEDED TO RICHARD AND MIKKI RIELLA DESCRIBED IN THAT CERTAIN GRANT DEED RECORDED MAY 24, 2006 IN DOCUMENT NO. 2006-115000, SAN JOAQUIN COUNTY RECORDS.

TOGETHER WITH THE PARCEL OF LAND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A PORTION OF THE LAND DEEDED TO RICHARD AND MIKKI RIELLA DESCRIBED IN THAT CERTAIN GRANT DEED RECORDED MAY 24, 2006 IN DOCUMENT NO. 2006-115008, SAN JOAQUIN COUNTY RECORDS, ALSO BEING A PORTION OF LOT 4 AS SHOWN ON THAT CERTAIN MAP FILED FOR RECORD JUNE 17, 1953 IN BOOK 31 OF MAPS AND PLATS, PAGE 78, SAN JOAQUIN COUNTY RECORDS, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF SAID LOT 4, ALSO BEING THE NORTHWEST CORNER OF THE LAND DEEDED TO RICHARD AND MIKKI RIELLA DESCRIBED IN THAT CERTAIN GRANT DEED RECORDED MAY 24, 2006 IN DOCUMENT NO. 2006-115000, SAN JOAQUIN COUNTY RECORDS, ALSO BEING A POINT ON THE EAST LINE OF LOT 2 AS SHOWN ON LAST SAID MAP; THENCE ALONG THE SOUTH LINE OF SAID LOT 4, SOUTH 87°27'32" EAST, 972.91 FEET TO THE POINT OF BEGINNING; THENCE FROM SAID POINT OF BEGINNING, LEAVING SAID SOUTH LINE, NORTH 02°32'28" EAST, 185.00 FEET; THENCE NORTH 87°27'32" WEST, 957.00 FEET TO A POINT ON SAID SOUTH LINE OF THE "DESIGNATED REMAINDER" AS SHOWN ON LAST SAID MAP; THENCE ALONG THE NORTH LINE OF SAID LOT 4, SOUTH 87°27'32" EAST, 944.23 FEET TO THE NORTHEAST CORNER OF SAID LOT 4, ALSO BEING A POINT ON THE WEST RIGHT-OF-WAY LINE OF AIRPORT WAY; SAID POINT BEING 50.00 FEET WEST (MEASURED AT RIGHT ANGLES) FROM THE CENTERLINE OF SAID AIRPORT WAY; THENCE ALONG SAID WEST RIGHT-OF-WAY LINE AND THE EAST LINE OF SAID LOT 4, SOUTH 02°32'28" WEST, 185.00 FEET TO THE NORTHEAST CORNER OF PARCEL 1 AS SHOWN ON THAT CERTAIN PARCEL MAP FILED FOR RECORD OCTOBER 11, 1996 IN BOOK 20 OF PARCEL MAPS, PAGE 135, SAN JOAQUIN COUNTY RECORDS; THENCE ALONG THE NORTH LINE OF SAID PARCEL 1, NORTH 87°27'32" WEST, 350.29 FEET TO THE NORTHWEST CORNER OF SAID PARCEL 1; THENCE ALONG THE WEST LINE OF SAID PARCEL 1, PARALLEL WITH THE EAST LINE OF SAID SECTION 13, SOUTH 00°17'28" WEST, 410.94 FEET TO THE SOUTHWEST CORNER OF SAID PARCEL 1, ALSO BEING A POINT ON THE SOUTH LINE OF SAID LOT 4; THENCE ALONG SAID SOUTH LINE, NORTH 87°27'32" WEST, 568.77 FEET TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM THE PARCEL OF LAND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A PORTION OF THE LAND DEEDED TO RICHARD AND MIKKI RIELLA DESCRIBED IN THAT CERTAIN GRANT DEED RECORDED MAY 24, 2006 IN DOCUMENT NO. 2006-115000, SAN JOAQUIN COUNTY RECORDS, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF SAID LAND DEEDED TO RICHARD AND MIKKI RIELLA, ALSO BEING THE SOUTHWEST CORNER OF LOT 4 AS SHOWN ON THAT CERTAIN MAP FILED FOR RECORD JUNE 17, 1953 IN BOOK 31 OF MAPS AND PLATS, PAGE 78, SAN JOAQUIN COUNTY RECORDS; THENCE ALONG THE SOUTH LINE OF SAID LOT 4,

SOUTH 87°27'32" EAST, 972.91 FEET; THENCE LEAVING LAST SAID LINE, SOUTH 02°32'28" WEST, 185.00 FEET TO THE NORTH LINE OF LOT 3 AS SHOWN ON LAST SAID MAP; ALSO BEING A POINT ON THE SOUTH LINE OF SAID LAND DEEDED TO RICHARD AND MIKKI RIELLA; ALSO BEING A POINT ON THE SOUTH LINE OF SAID SECTION 13; THENCE ALONG SAID SOUTH LINE, NORTH 87°27'32" WEST, 963.29 FEET TO THE SOUTHWEST CORNER OF SAID LAND DEEDED TO RICHARD AND MIKKI RIELLA, ALSO BEING THE SOUTHEAST CORNER OF LOT 3 AS SHOWN ON LAST SAID MAP; THENCE ALONG THE EAST LINE OF SAID LOT 3, NORTH 00°42'32" WEST, 963.75 FEET TO THE POINT OF BEGINNING.

PARCEL B:

PARCEL 1 AS SHOWN ON PARCEL MAP FILED FOR RECORD OCTOBER 11, 1996 IN BOOK 20 OF PARCEL MAPS, PAGE 135, SAN JOAQUIN COUNTY RECORDS.

PROJECT ADDRESS:

3045 SOUTH AIRPORT WAY
MANTECA, CA 95336

PROJECT DESCRIPTION:

A DISTRIBUTION WAREHOUSE FACILITY CONSISTING OF A WAREHOUSE TOTALING 360,000 SF OR 8.26 NET ACRES

PROJECT DATA:

GROSS SITE AREA: 927,700 S.F. 21.3 AC.

BUILDING AREA

OFFICE	10,000 S.F.
WAREHOUSE	350,00 S.F.
TOTAL BUILDING AREA	360,000 S.F.

LOT COVERAGE: PROPOSED: 38.2%

PARKING REQUIREMENTS

WAREHOUSE (1/1000 SF)	175 STALLS
OFFICE (1/250 SF)	40 STALLS
TOTAL PARKING REQUIRED	215 STALLS

PARKING PROVIDED

VAN ACCESSIBLE	3 STALLS
STANDARD ACCESSIBLE	6 STALLS
EVCS VAN ACCESSIBLE	1 STALLS
EVCS STANDARD ACCESSIBLE	1 STALLS
EVCS STANDARD	23 STALLS
CLEAN AIR / VANPOOL	30 STALLS
STANDARD	178 STALLS
TOTAL	242 STALLS

TRAILER PARKING PROVIDED

TRAILER (12' x 55')	93 STALLS

SITE DATA TABLE

BUILDING	LAND AREA AC	NET LAND AREA SF	FAR %	BLDG FOOT PRINT SF	BLDG MEZZ.	TOTAL BLDG SF	OFFICE SF	WAREHOUSE SF	OFFICE PRKG.	WAREHOUSE PRKG.	PRKG REQ.	PRKG PROV.	LANDSCAPE %
1	21.3 AC+/-	927,700+/-	39%	355,000	5,000	360,000	10,000	350,000	40	175	215	242	16.8%
									(1/250)	(0.5/1000)		(.67/1000)	

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GREENLAW

AIRPORT BUSINESS CENTRE NORTH
MANTECA, CA

CONCEPTUAL SITE PLAN & PROJECT DATA

AO Architecture. Design. Relationships.

A1

2022-201
2022-08-04

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Roth Road

Intermodal Way

South Airport Way

Tactical Way

Subject Site:

Proposed Street "A"

2803 Airport Way

Briggs Ave

Manila Rd

Frewert Rd

Klo Rd

De Lima Rd

Manthey Rd

Stonebridge Ln

Pipestone St

Opal St

Slate St

S McKinley Ave

Valley High St

Almond St

A St

Airport Way

Coelho Rd

Lovelace Rd

(LI) ZONE

(AG) ZONE

EXISTING DWELL (N. A. P.)

J3

Legend:

N

Truck ingress/egress =

GREENLAW

AIRPORT BUSINESS CENTRE NORTH

MANTECA, CA

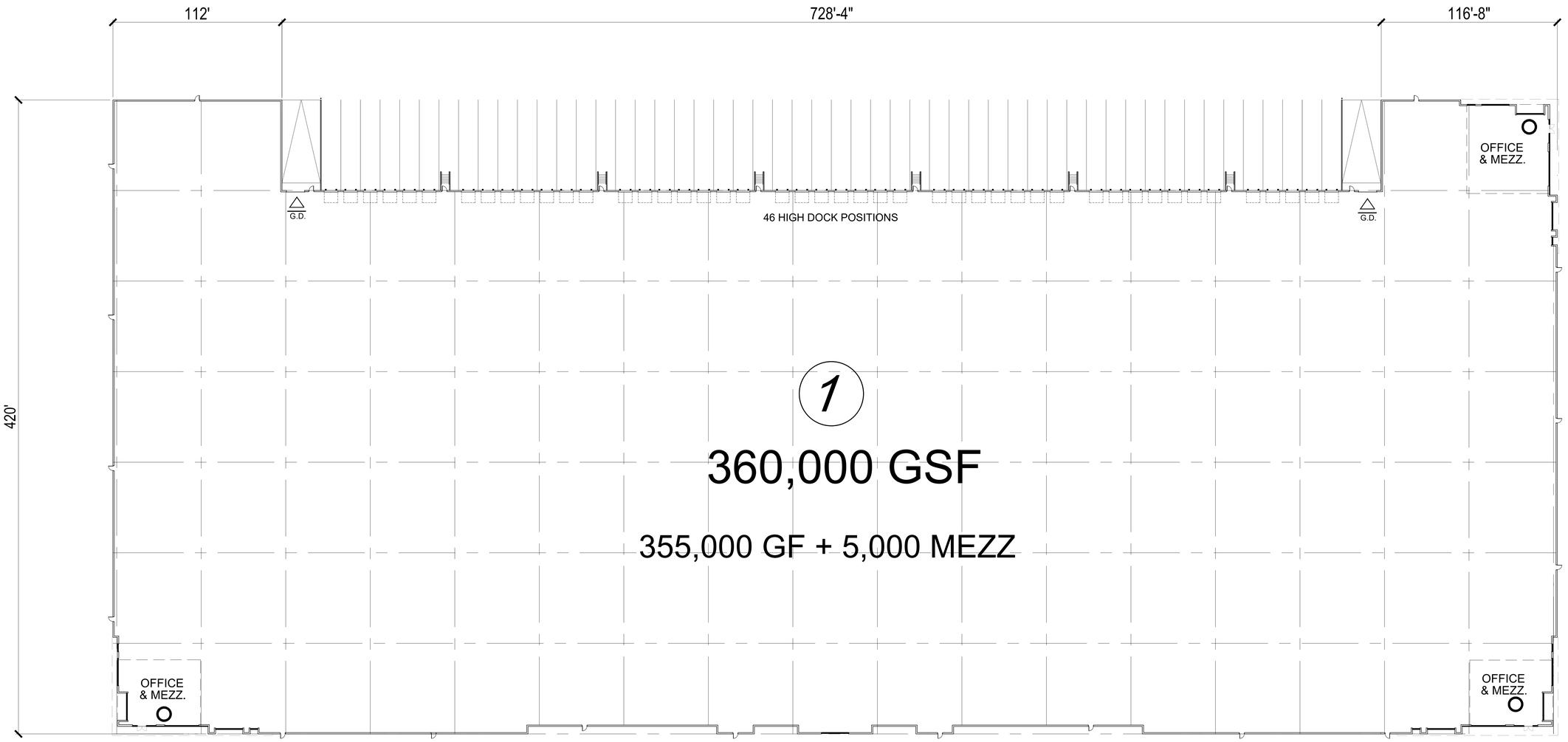
TRUCK INGRESS AND EGRESS FROM SITE

Architecture. Design. Relationships.

A2

2022-201

2022-04-06



30' 0 5' 10' 20' 30' 45' 60'

N

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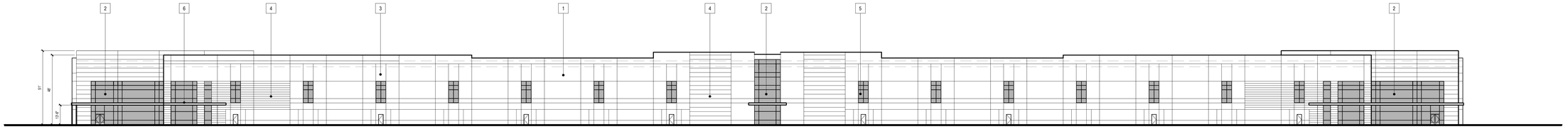
MANTECA, CA

CONCEPTUAL FLOOR PLAN

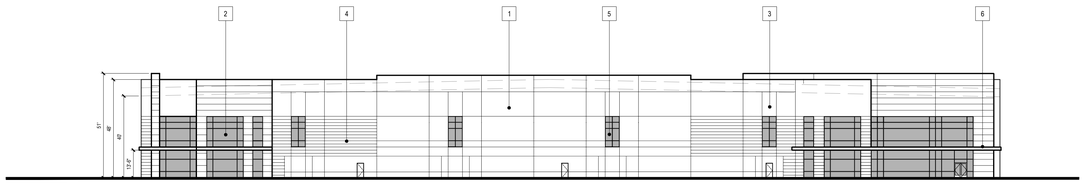
Architecture. Design. Relationships.

A3

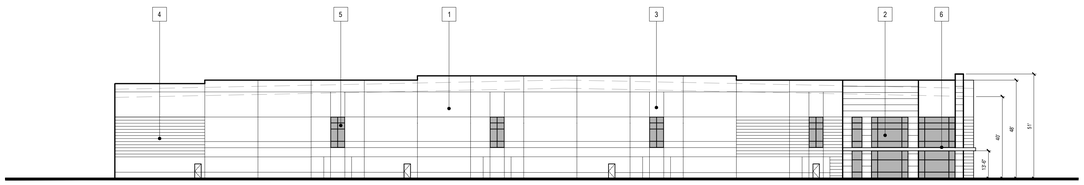
2022-201
2022-04-06



EAST ELEVATION



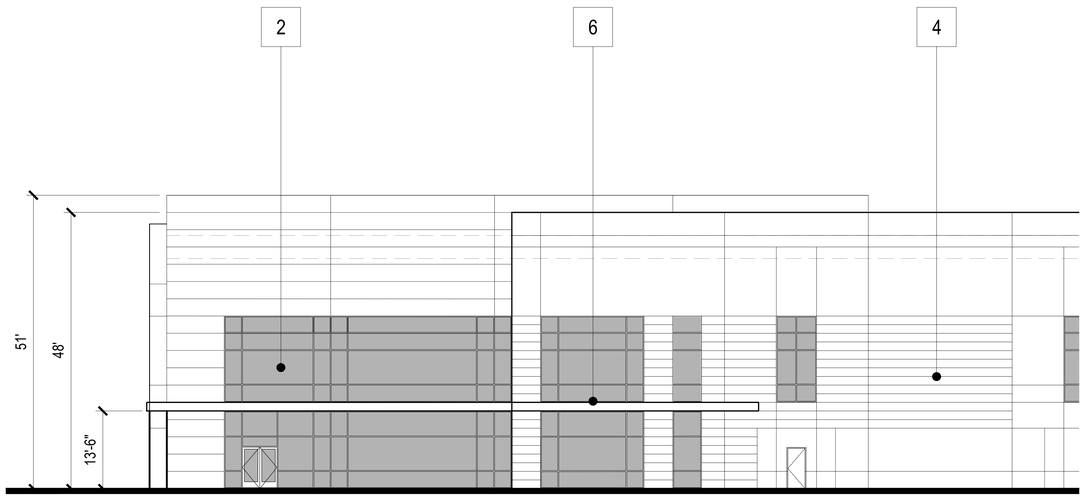
NORTH ELEVATION



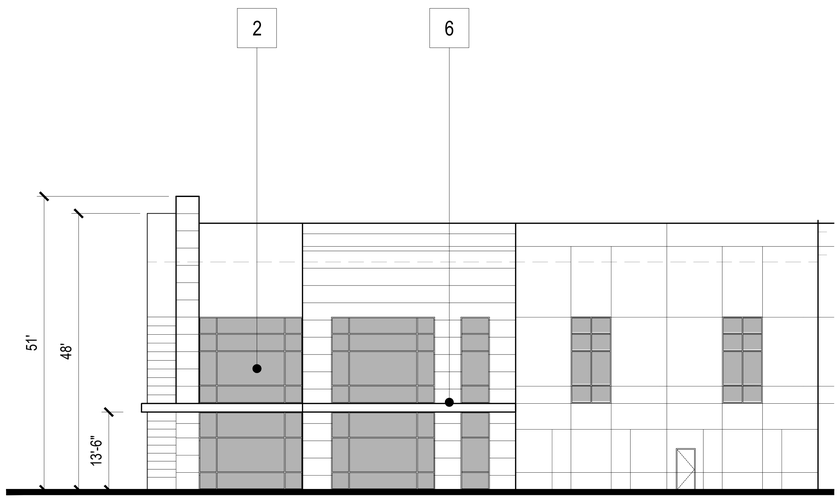
SOUTH ELEVATION



WEST ELEVATION



ENLARGED EAST SIDE ENTRY



ENLARGED WEST SIDE CORNER

KEY NOTES:

1. CONCRETE TILT-UP PANEL
2. MEDIUM PERFORMANCE GLASS IN CLEAR ANOD. ALUM. MULLION SYSTEM.
3. PAINTED ACCENT INSET
4. CONCRETE TILT-UP PANEL WITH REVEALS
5. CLERESTORY MEDIUM PERFORMANCE GLASS IN CLEAR ANOD. ALUM. MULLIO SYSTEM
6. METAL CANOPY

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GREENLAW

AIRPORT BUSINESS CENTRE NORTH

MANTECA, CA

CONCEPTUAL ELEVATIONS

Architecture. Design. Relationships.

A4

2022-201
2022-04-06



EAST ELEVATION



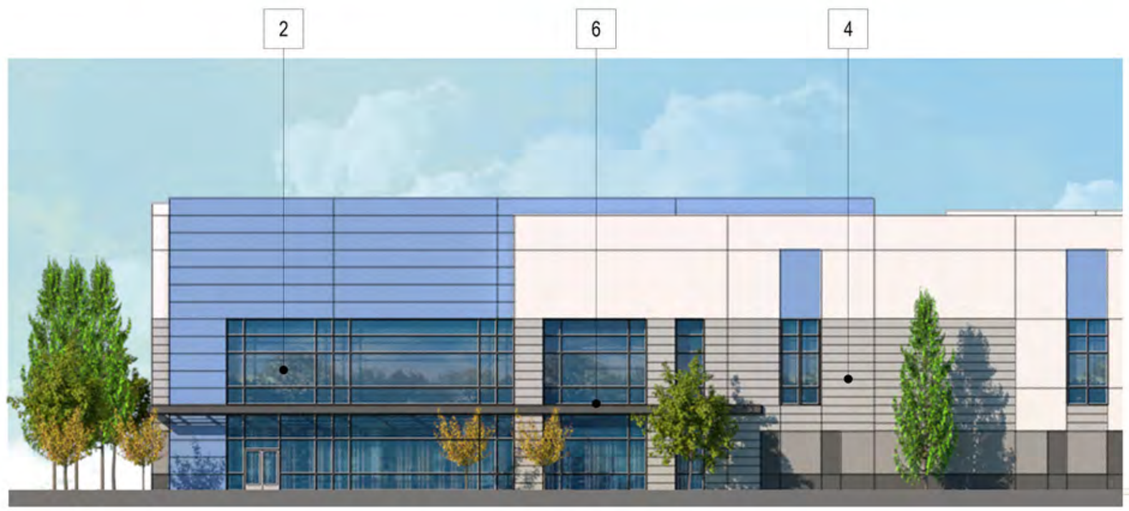
NORTH ELEVATION



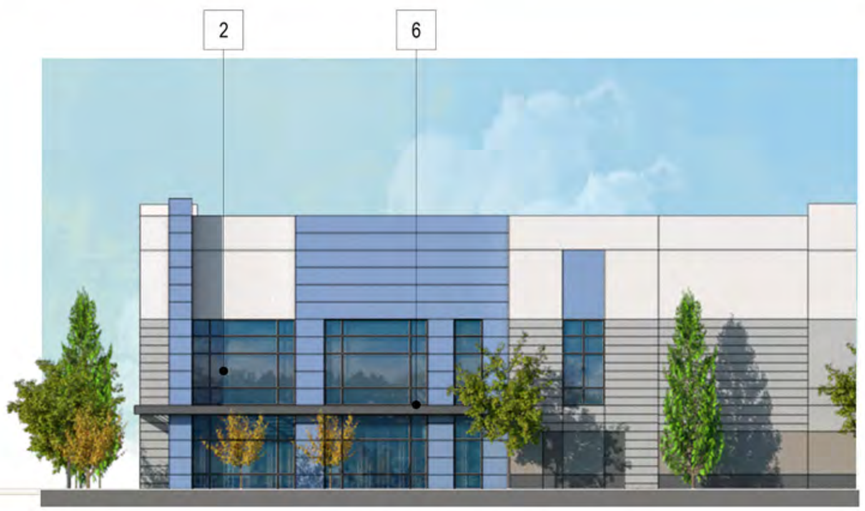
SOUTH ELEVATION



WEST ELEVATION



ENLARGED EAST SIDE ENTRY



ENLARGED WEST SIDE CORNER

KEY NOTES:

1. CONCRETE TILT-UP PANEL
2. MEDIUM PERFORMANCE GLASS IN CLEAR ANOD. ALUM. MULLION SYSTEM.
3. PAINTED ACCENT INSET
4. CONCRETE TILT-UP PANEL WITH REVEALS
5. CLERESTORY MEDIUM PERFORMANCE GLASS IN CLEAR ANOD. ALUM. MULLIO SYSTEM
6. METAL CANOPY

GREENLAW

AIRPORT BUSINESS CENTRE NORTH

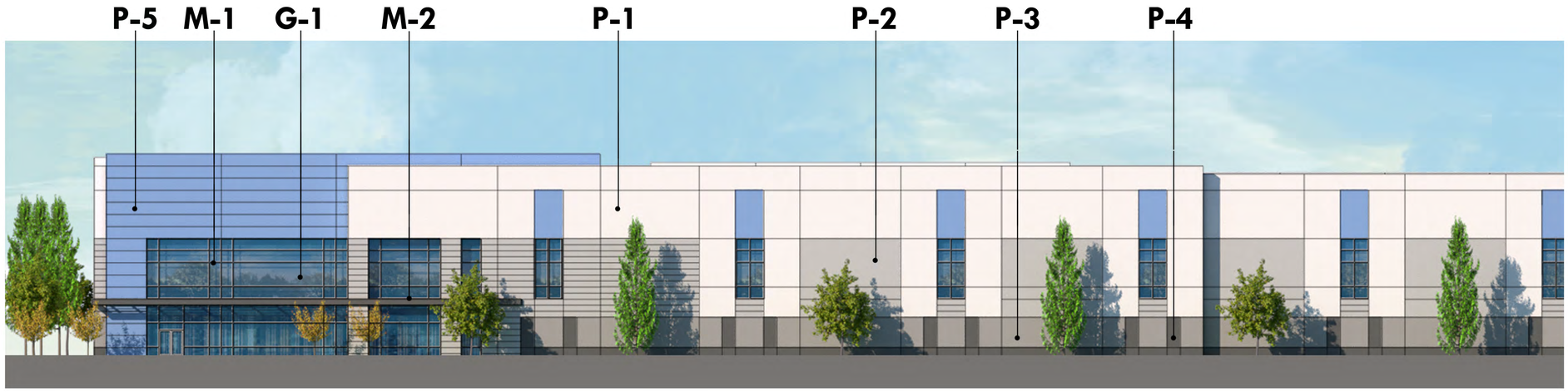
MANTECA, CA

CONCEPTUAL COLORED ELEVATIONS

Architecture. Design. Relationships.

A5

2022-201
2022-04-06



P-1
Sherwin-Williams Paints
SW 7566 Westhighland White

P-2
Sherwin-Williams Paints
SW 7015 Repose Gray

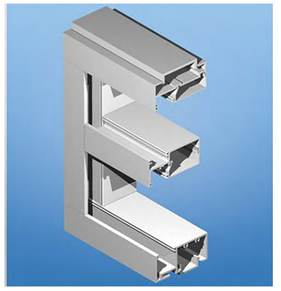
P-3
Sherwin-Williams Paints
SW 7024 Functional Gray

P-4
Sherwin-Williams Paints
SW 9555 Storm Warning

P-5
Sherwin-Williams Paints
SW 6809 Lobelia



G-1
Medium Performance
Reflective Glass



M-1
Alum. Storefront Frame,
Clear Finish, Offset

M-2
Metal Canopy, Painted
Color to Match Sherwin
Williams SW 9555
Storm Warning

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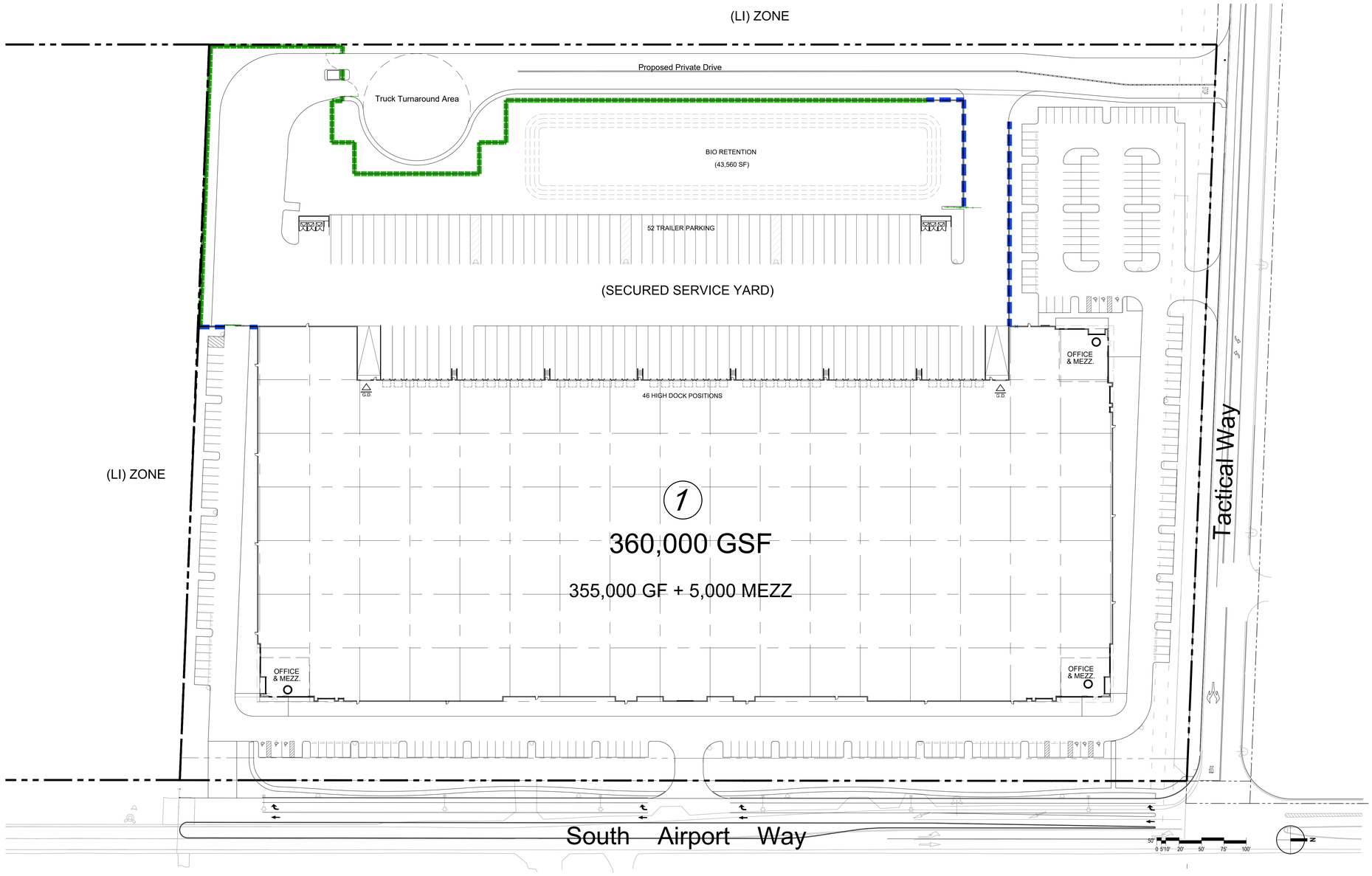
AIRPORT BUSINESS CENTRE NORTH
MANTECA, CA

COLOR AND MATERIAL BOARD

Architecture. Design. Relationships.

A6

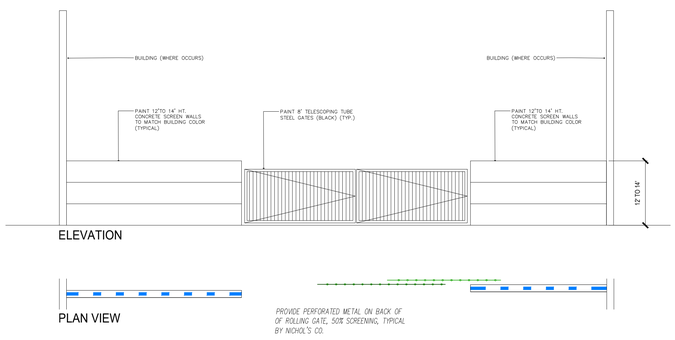
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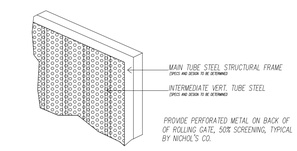
9' HEIGHT TUBE STEEL FENCE (PAINTED BLACK)

12' TO 14' CONCRETE SCREEN WALL



TYPICAL SCREEN WALL

0 5 10 30



GATE SCREENING:

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AIRPORT BUSINESS CENTRE NORTH

MANTECA, CA

WALL & FENCE PLAN

Architecture. Design. Relationships.

A7

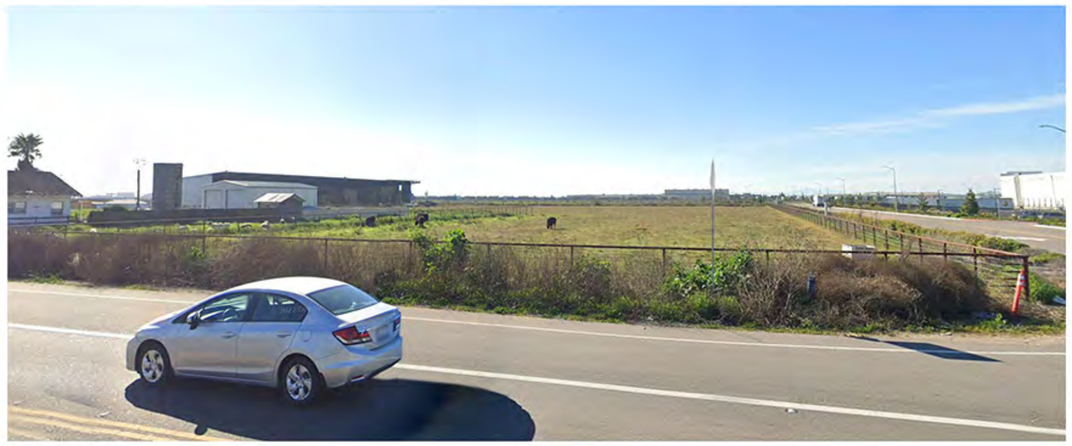
2022-201
2022-08-04



SITE PHOTO 1



SITE PHOTO 2



SITE PHOTO 3



SITE PHOTO 4



SITE PHOTO 5



KEY PLAN

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GREENLAW

AIRPORT BUSINESS CENTRE NORTH
MANTECA, CA

SITE PHOTO BOARD

Architecture. Design. Relationships.

A8

2022-201
2022-04-06



VIEW FROM SOUTH AIRPORT WAY AND TACTICAL WAY LOOKING SOUTHWEST

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GREENLAW

AIRPORT BUSINESS CENTRE NORTH
MANTECA, CA

CONCEPTUAL RENDERED VIEW

Architecture. Design. Relationships.

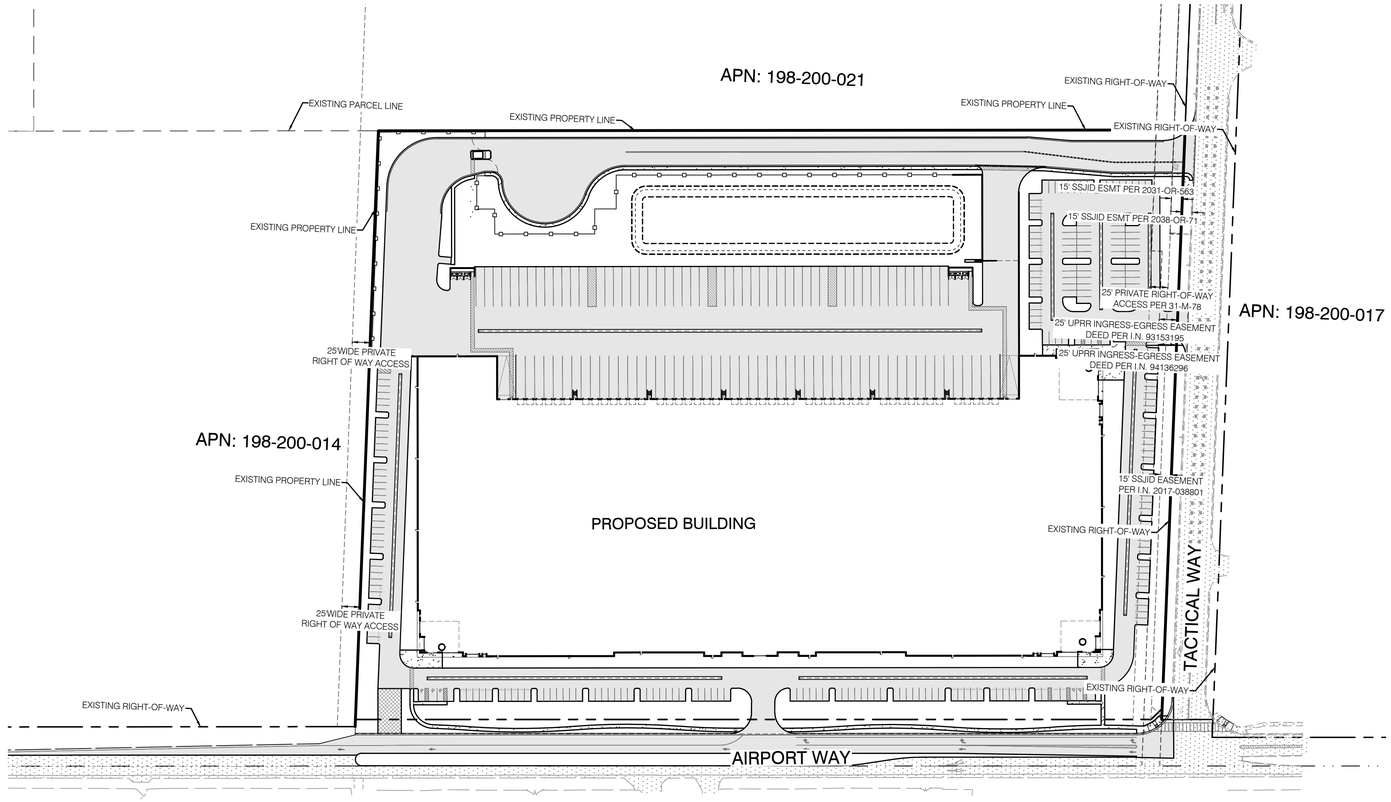
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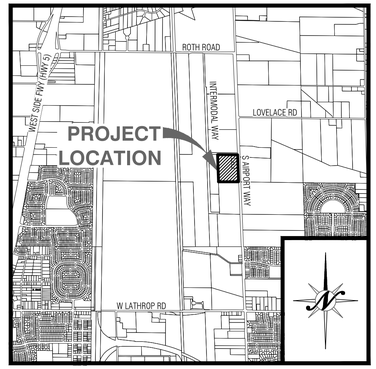
2022-201
2022-04-06

CONCEPTUAL PLANNING PLANS FOR
AIRPORT BUSINESS CENTRE NORTH
MANTECA, CALIFORNIA

LEGEND

	EXISTING	PROPOSED
BOUNDARY LINE		
CENTERLINE		
RIGHT-OF-WAY		
PARCEL LINE		
MONUMENT	N/A	◎
SAWCUT	N/A	
CURB, GUTTER AND SIDEWALK		
EDGE OF PAVEMENT		
CONCRETE VALLEY GUTTER	N/A	
TRENCH DRAIN	N/A	
STORM DRAIN (MAIN)	Ex12"SD	12"SD
FORCE MAIN	Ex48"FM	48"FD
DRAINAGE SWALE		
STORM DRAIN MAINTENANCE HOLE	SD	SD
CURB INLET		
DRAIN INLET		
DRAIN INLET ON MAINTENANCE HOLE		
STORM DRAINAGE FILTER	N/A	
WATER (MAIN)	Ex8"W	8"W
WATER (SERVICE)	Ex8"W	8"W
WATER VALVE	WV	WV
WATER BLOW OFF VALVE	BO	BO
BACK FLOW PREVENTER	BFP	BFP
POST INDICATOR VALVE (SINGLE)	PIV	PIV
FIRE DEPARTMENT CONNECTION	FDC	FDC
FIRE HYDRANT		
FIRE SPRINKLER RISER	N/A	FSR
WATER METER	WM	WM
REDUCED PRESSURE PRINCIPLE DETECTOR ASSEMBLY	N/A	RPPA
SINGLE CHECK DETECTOR ASSEMBLY	N/A	SCDA
SERVICE STUB	N/A	
CLEANOUT		
SEWER MAINTENANCE HOLE	S	S
GREASE TRAP	N/A	
SEWER (MAIN)	Ex12"SS	12"SS
JOINT TRENCH (APPROX LOCATION)		N/A
TRANSFORMER (APPROX LOCATION)	N/A	
OVER HEAD ELECTRICAL		N/A
SERVICE POLE	SP	N/A
JOINT POLE	JP	N/A
JOINT POLE WITH LIGHT	JP	N/A
POWER POLE	PP	N/A
TELEPHONE POLE	TP	N/A
GUY		N/A
ELECTRICAL MANHOLE		N/A
ELECTROLIER		100W 150W 200W
UTILITY BOX		
GAS LINE	G	N/A
GAS VALVE	GV	N/A
PAD ELEVATION	N/A	N/A
FINISH FLOOR ELEVATION (PROPOSED)	N/A	FF=0000.00
BUILDING PAD	N/A	10.0
TOP OF CURB ELEVATION	68.34 TC	68.34 TC
ORIGINAL GROUND	108.62	N/A
DIRECTION OF FLOW	3.0%	3.0%
CONTOURS	32	32
WALL (SEE LABEL FOR TYPE)		
FENCE (CHAINLINK OR VINYL)		
FENCE (WIRE OR HOGWIRE)		
FENCE (WOOD OR WROUGHT IRON)		
FENCE (SPLIT RAIL)		
TREE OR SHRUB		N/A
TREE STUMP		N/A
IRRIGATION LINE	Ex48"IR	
IRRIGATION VALVE	ICV	N/A
IRRIGATION PRESSURE MANHOLE/VENT		
SIGN		
PERCOLATION TEST LOCATION	N/A	P-X
R-VALUE SAMPLE LOCATION	N/A	RV-X
KEYNOTE SYMBOL	X	X





VICINITY MAP
NTS

100 50 0 100
1" = 100'

ABBREVIATIONS

±	PLUS OR MINUS (NOT EXACT)	DW	DRIVEWAY	MIN	MINIMUM	S	SLOPE OR SOUTH
@	AT	E	EAST	N	NORTH	SC	SAN JOAQUIN COUNTY
AB	AGGREGATE BASE	EC	END OF CURVE	NDS	NDS INC. (MANUFACTURER)	SCDA	SINGLE CHECK DETECTOR
AC	ASPHALT CONCRETE	EM	ELECTRIC METER	NIC	NOT INCLUDED		ASSEMBLY
ACC	ACCESSIBLE	ELC	ELECTROLIER	NSE	NORTHSTAR ENGINEERING	SD	STORM DRAIN
ADTT	AVERAGE DAILY TRUCK TRAFFIC	ELEV	ELEVATION	NTS	NOT TO SCALE	SDOF	STORM DRAIN OUTFALL
AG	ATRIUM GRATE	EP	EDGE OF PAVEMENT	OC	ON CENTER	SG	SUB-GRADE
ALT	ALTERNATE	ER	END OF RETURN	OF	OFFSET	SHT	SHEET
APN	ASSESSORS PARCEL NUMBER	ESMT OR EASE	EASEMENT	OG	ORIGINAL GROUND / GRADE	SIM	SIMILAR
ASR	AUTOMATIC SPRINKLER RISER	EX OR EXIST	EXISTING	OHE	OVER HEAD ELECTRIC	SNS	STREET NAME SIGN
AVE	AVENUE	FDC	FIRE DEPARTMENT CONNECTION	P OR PAV	PAVEMENT	ST	STREET
BC	BEGIN CURVE	FES	FLARED END SECTION	PCC	POINT OF COMPOUND CURVE OR PORTLAND CEMENT CONCRETE	STL	STEEL
BDRY	BOUNDARY	FF	FINISH FLOOR			STA	STATION
BFP	BACK FLOW PREVENTOR	FG	FINISH GRADE	PG	PAGE	STD	STANDARD
BK	BOOK	FH	FIRE HYDRANT	PG&E	PACIFIC GAS AND ELECTRIC	SW OR SW	SIDEWALK
BM	BENCH MARK	FL	FLOW LINE	PIV	PRESSURE INDICATOR VALVE	SS	SANITARY SEWER
BW	BACK OF WALK	FM	FORCE MAIN	PL	PROPERTY LINE	TC	TOP OF CURB
BSL	BUILDING SETBACK LINE	FS	FIRE SERVICE	PM	PARCEL MAP	TD	TRENCH DRAIN
BVC	BEGIN VERTICAL CURVE	FSR	FIRE SPRINKLER RISER	POC	POINT OF CONNECTION	TDC	TOP OF DRIVE OVER CURB
C&G OR C.G.	CURB AND GUTTER	GB	GRADE BREAK	PP	POWER POLE	TEMP	TEMPORARY
CB	CATCH BASIN	GR	GRATE, GRADE, OR GROUND	PRC	POINT OF REVERSE CURVATURE	TG	TOP OF GRATE
CDS	CONTINUOUS DEFLECTION SEPARATORS	GS	GROUND SHOT ELEVATION	PROF	PROFILE	THRU	THROUGH
		GS@W	GROUND SHOT AT WALL	PT	POINT	TI	TRAFFIC INDEX
CIP	CAST IRON PIPE	GV	GATE VALVE	PTDF	PRESSURE TREATED DOUGLAS FIR	TID	TURLOCK IRRIGATION DISTRICT
℄ OR CL	CENTER LINE	HORIZ	HORIZONTAL	PUE	PUBLIC UTILITY EASEMENT	TW	TOP OF WALL
CMP	CORRUGATED METAL PIPE	HP	HIGH POINT	PVC	POLYVINYL CHLORIDE PIPE	TPE	TREE PLANTING EASEMENT
CO	CLEAN OUT	HPS	HIGH PRESSURE SODIUM	RW	RECLAIMED WATER	TVC	TOP OF VERTICAL CURB
C.O.M.	CITY OF MANTECA	HT	HEIGHT	R/W	RIGHT-OF-WAY	TYP	TYPICAL
COMP.	COMPACTION	HWY	HIGHWAY	R	RADIUS	UON	UNLESS OTHERWISE NOTED
CONC OR CC	CONCRETE	ID	INSIDE DIAMETER	RC	RELATIVE COMPACTION	VERT	VERTICAL
CR	CURB RETURN	INV	INVERT	RCP	REINFORCED CONCRETE PIPE	VCP	VITRIFIED CLAY PIPE
CT.	COURT	IRR	IRRIGATION	R.D.	RELATIVE DENSITY	W	WATER OR WEST
CV	CHECK VALVE	LF	LINEAL FEET OR LINEAR FEET	RD	ROAD	WM	WATER METER
DDCV	DOUBLE DETECTOR CHECK VALVE	LN	LANE	RET	RETURN	WS	WATER SERVICE
DI	DRAIN INLET	LP	LOW POINT	RPDA	REDUCED PRESSURE DETECTOR ASSEMBLY	WY	WAY
DIA	DIAMETER	LT	LEFT			W/	WITH
DIP	DUCTILE IRON PIPE	JT	JOINT TRENCH	RV	RESISTANCE VALUE	WWF	WELDED WIRE FABRIC
(DOM)	DOMESTIC	MAX	MAXIMUM	RP	REDUCED PRESSURE		
DR	DRIVE	MH	MAINTENANCE HOLE	BP	BACKFLOW PREVENTER		

PREPARED FOR

CLIENT:
GREENLAW DEVELOPMENT, LLC
18301 VON KARMAN AVENUE, SUITE 250
IRVINE, CA 92612
P: (714) 749-5608
CONTACT:
ROBERT G. MITCHELL

PROJECT LOCATION

SITE ADDRESS
3045 AIRPORT WAY
MANTECA, CA 95336

SHEET INDEX

GENERAL INFORMATION
1. C1.1 COVER SHEET
2. C1.2 STREET CROSS SECTIONS

SITE PLANS
3. C2.1 TOPOGRAPHIC AND DEMOLITION PLAN
4. C3.1 DIMENSION AND PAVING PLAN
5. C4.1 GRADING AND DRAINAGE PLAN
6. C5.1 COMPOSITE UTILITY AND STORMWATER QUALITY PLAN

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REVISIONS NO.	DESCRIPTIONS	DATE	APPROVED

COVER SHEET

CONCEPTUAL PLANNING PLANS FOR
AIRPORT BUSINESS CENTRE NORTH
MANTECA, CALIFORNIA

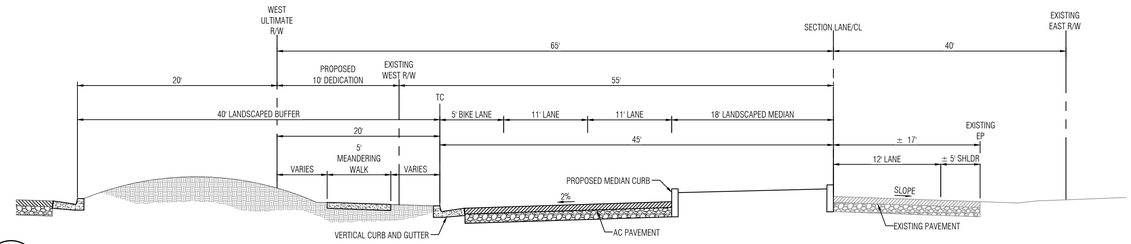
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DATE:	07/27/2022
SCALE:	AS SHOWN
DRAWN:	JC
DESIGN:	CMW
CHK'D:	CMW

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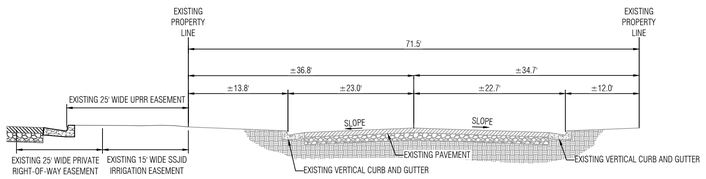
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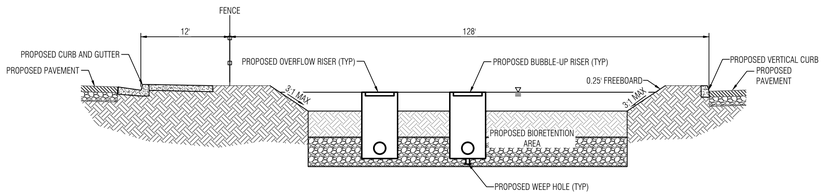
A AIRPORT WAY CROSS SECTION

NTS



B TACTICAL WAY CROSS SECTION

NTS



C TYPICAL BIORETENTION SECTION

NTS

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STREET CROSS SECTIONS

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MANTECA, CALIFORNIA

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C1.2

APN: 198-200-021

APN: 198-200-013

APN: 198-200-014

APN: 198-200-017

APN: 198-200-006

APN: 198-200-009

EX-SDCB(5917)
±12.44RIM
±7.44FL(30")E

EXISTING PARCEL LINE

EXISTING 6' IRRIGATION HEADWALL

EXISTING PROPERTY LINE

EXISTING DIRT ROAD

EXISTING GAS LEASE AREA TO BE TERMINATED

EXISTING 5' IRRIGATION HEADWALL

EXISTING 24" IRRIGATION VALVE

EX. 24" IRRIGATION VALVE

EXISTING 6' IRRIGATION HEADWALL

EXISTING GATE

EXISTING 5' FENCE (HOGWIRE)

EXISTING 5' FENCE (METAL)

EXISTING 8' WALL (CONCRETE)

EXISTING STANDING DUCTILE IRON PIPE

EXISTING DOWNSPOUT

EXISTING CONCRETE

EXISTING GRAVEL ROAD

EX. 5' IRRIGATION HEADWALL

EXISTING 5' FENCE (HOGWIRE)

25'WIDE PRIVATE RIGHT OF WAY ACCESS

EXISTING BUILDING

(3) 10"TREE

10"TREE

(2) 10"TREE

EX. LIGHT AND CAMERA

EXISTING MAILBOX

EXISTING WASTEWATER POND

APPROXIMATE LOCATION OF EXISTING BUILDING

APPROXIMATE LOCATION OF EXISTING FENCE

APPROXIMATE LOCATION OF EXISTING CONCRETE STRUCTURE

APPROXIMATE LOCATION OF EXISTING GRAVEL ROAD

EXISTING POWER POLE

PP

APPROXIMATE LOCATION OF EXISTING CONCRETE

APPROXIMATE LOCATION OF EXISTING TREES

EXISTING TELEPHONE POLE

EXISTING CONCRETE

EXISTING RIGHT-OF-WAY

(4)EXISTING BOLLARD (4'x4)

EXISTING 5' FENCE (CHAINLINK)

RELOCATE EXISTING FIRE HYDRANT

UNDERGROUND EXISTING TELEPHONE POLE

EXISTING PAVEMENT

(3) EXISTING MAILBOX

EXISTING 4' FENCE (BARBED-WIRE)

EXISTING DIRT ROAD

EXISTING 5' FENCE (BARBED-WIRE)

EXISTING JUNCTION POLE

RELOCATE EX. FIRE HYDRANT

EX. PROPERTY LINE

EXISTING SERVICE POLE

(4)EXISTING BOLLARD (4'x3)

EXISTING JUNCTION POLE

AIRPORT WAY

EXISTING GAS LEASE AREA TO BE TERMINATED

EXISTING GRAVEL ROAD

EXISTING STANDING DUCTILE IRON PIPE

EXISTING DOWNSPOUT

EXISTING GATE

EXISTING MAILBOX

EXISTING CONCRETE

EXISTING PROPERTY LINE

APPROXIMATE LOCATION OF EXISTING BUILDING

APPROXIMATE LOCATION OF EXISTING CONCRETE STRUCTURE

APPROXIMATE LOCATION OF EXISTING GRAVEL ROAD

EXISTING GAS LEASE AREA TO BE TERMINATED

EXISTING 5' FENCE (HOGWIRE)

APPROXIMATE LOCATION OF EXISTING BUILDING

APPROXIMATE LOCATION OF EXISTING CONCRETE STRUCTURE

APPROXIMATE LOCATION OF EXISTING GRAVEL ROAD

EXISTING GAS LEASE AREA TO BE TERMINATED

EX. 5' FENCE (HOGWIRE)

APPROXIMATE LOCATION OF EXISTING CONCRETE

APPROXIMATE LOCATION OF EXISTING BUILDING

EXISTING SIGN 'STOP'

EXISTING SIGN 'MERGE LEFT'

EXISTING JUNCTION POLE AND 6" CONDUIT

EXISTING GAS MARKER POST

EXISTING 3' FENCE (HOGWIRE)

EX-SDMH(12102)
±23.07RIM
±16.40FL(12")W
±7.32FL(54")S,E

EXISTING SIGN "NO PARKING"

EXISTING RIGHT-OF-WAY

EX-SDCB(12133)
±21.83RIM
±19.73FL(12")NE

EXISTING PROPERTY LINE

EXISTING FIRE HYDRANT

EXISTING STREET LIGHT AND BOX

EX-SDMH(12134)
±22.68RIM
±19.38FL(12")SW
±17.08FL(12")N
±7.57FL(48")W/E

EXISTING RIGHT-OF-WAY

EX. STORM DRAIN STRUCTURE

EXISTING STORM DRAIN STRUCTURE

15' SSJID ESMT PER 2031-OR-563

EX-ISP(12173)
±31.44RIM
±18.84FL(12")
@BOTTOM

15' SSJID ESMT PER 2038-OR-71

EX-ISP(12171)
±31.04RIM
±18.04FL(42")E
±FL(42")W, GATE
±FL(42")S, GATE
±17.10@BOTTOM BOX

EX. STREET LIGHT AND BOX

EXISTING SIGN "NO PARKING"

EXISTING FIRE HYDRANT

25' PRIVATE RIGHT-OF-WAY ACCESS PER 31-M-78

25' UPRR INGRESS-EGRESS EASEMENT DEED PER I.N. 93153195

EX-SSMH(12230)
±23.29RIM
±15.54FL(10")S, STUB
±15.48FL(10")E

EX-SDMH(12231)
±23.24RIM
±7.93FL(54")W/E

25' UPRR INGRESS-EGRESS EASEMENT DEED PER I.N. 94136296

EXISTING PROPERTY LINE

EXISTING SIGN "NO PARKING"

EXISTING STREET LIGHT AND BOX

15' SSJID EASEMENT PER I.N. 2017-038801

TACTICAL WAY

EXISTING FIRE HYDRANT

EX-SSMH(12353)
±24.34RIM
±14.96FL(10")W/E

EXISTING SIGN "NO PARKING"

EX-SDMH(12352)
±24.23RIM
±17.68FL(12")NE
±9.91FL(30")N
±8.37FL(48")E
±8.37FL(54")W

EXISTING PROPERTY LINE

EX-SDMH(12341)
±24.09RIM
±11.54FL(15")W
±11.49FL(18")NW
±11.14FL(24")E
±10.04FL(30")S

EX-IRRMH(12364)
±24.41RIM
BOLTED

EX-ISP(12365)
±32.28RIM
±17.78FL(10")
@BOTTOM

EX. STREET LIGHT AND BOX

EX. STORM DRAIN STRUCTURE

EXISTING RIGHT-OF-WAY

EXISTING FIRE HYDRANT

EX. STREET LIGHT AND BOX

EX-MH(13562)
±25.77RIM

EXISTING SIGN "ARROW"

EX-SDMH(13709)
±25.14RIM
±8.92FL(48")N
±8.80FL(48")W

EX-SSMH(13674)
±25.63RIM
±13.99FL(10")W
±10.63FL(18")S/N

EXISTING JUNCTION POLE

EXISTING PAVEMENT

EXISTING GATE

EX. JUNCTION POLE

EXISTING 5' FENCE (BARBED-WIRE)

EXISTING 5' FENCE (HOGWIRE)

60 30 0 60

1" = 60'

LEGEND

- EXISTING CONCRETE
- EXISTING CONCRETE STRUCTURAL SECTION TO BE REMOVED
- EXISTING PAVEMENT
- EXISTING PAVEMENT STRUCTURAL SECTION TO BE REMOVED
- EXISTING GRAVEL
- EXISTING GAS LEASE AREA TO BE TERMINATED

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REVISIONS

NO.	DESCRIPTIONS	DATE	APPROVED

TOPOGRAPHIC AND DEMOLITION PLAN

CONCEPTUAL PLANNING PLANS FOR AIRPORT BUSINESS CENTRE NORTH MANTECA, CALIFORNIA

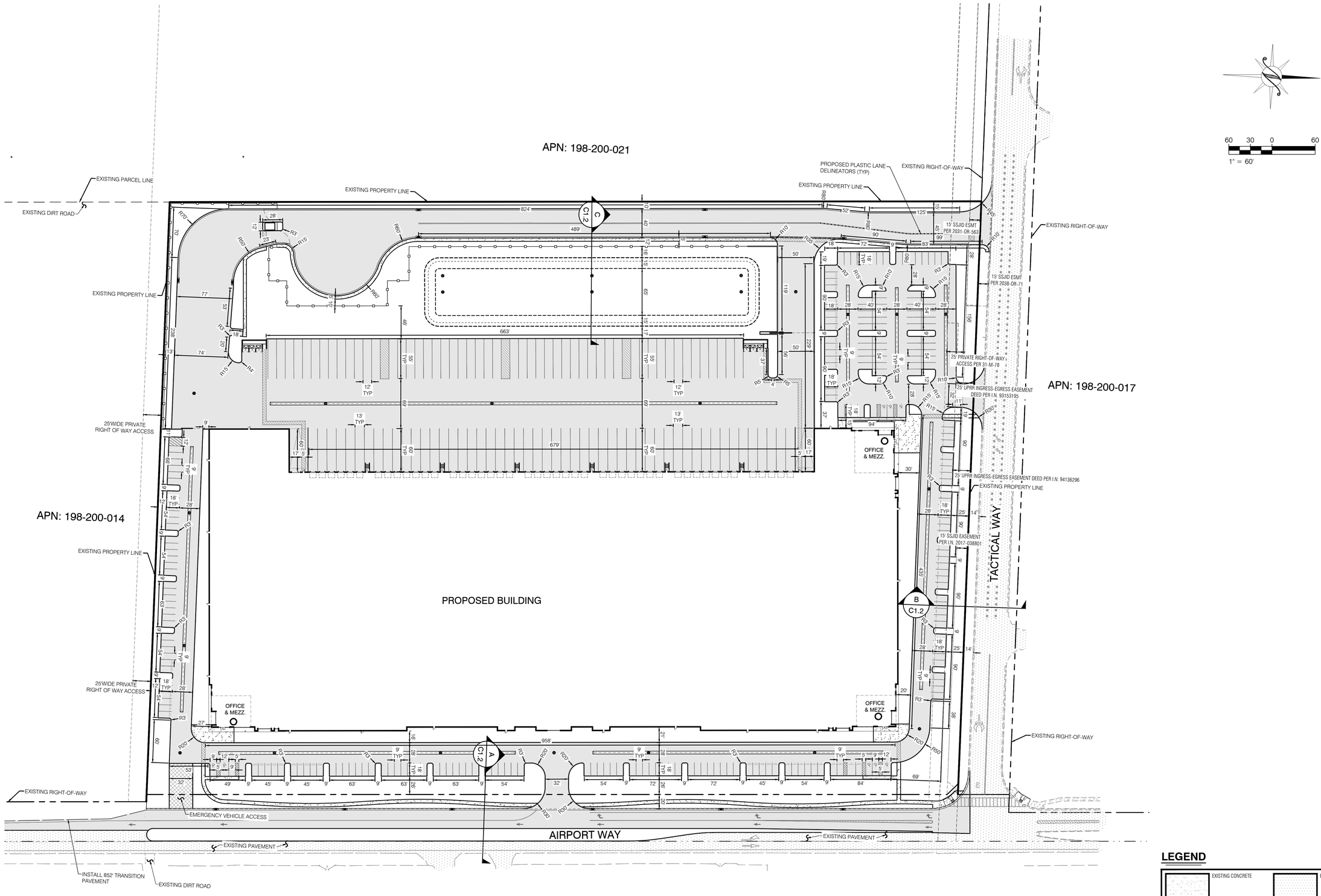
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C2.1

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DWGNAME: F:\21-2967 Airport Business Centre North\Planning\Planning Plans\C2.1 TPD.dwg



LEGEND

- EXISTING CONCRETE
- EXISTING PAVEMENT
- PROPOSED CONCRETE
- PROPOSED PAVEMENT
- PROPOSED GRASS PAVERS

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CALL BEFORE YOU DIG 811 800-227-2600

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER M. WILLIS No. 83178 CIVIL STATE OF CALIFORNIA

PRELIMINARY NOT FOR CONSTRUCTION

REVISIONS NO.	DESCRIPTIONS	DATE	APPROVED

DIMENSION AND PAVING PLAN

CONCEPTUAL PLANNING PLANS FOR AIRPORT BUSINESS CENTRE NORTH MANTECA, CALIFORNIA

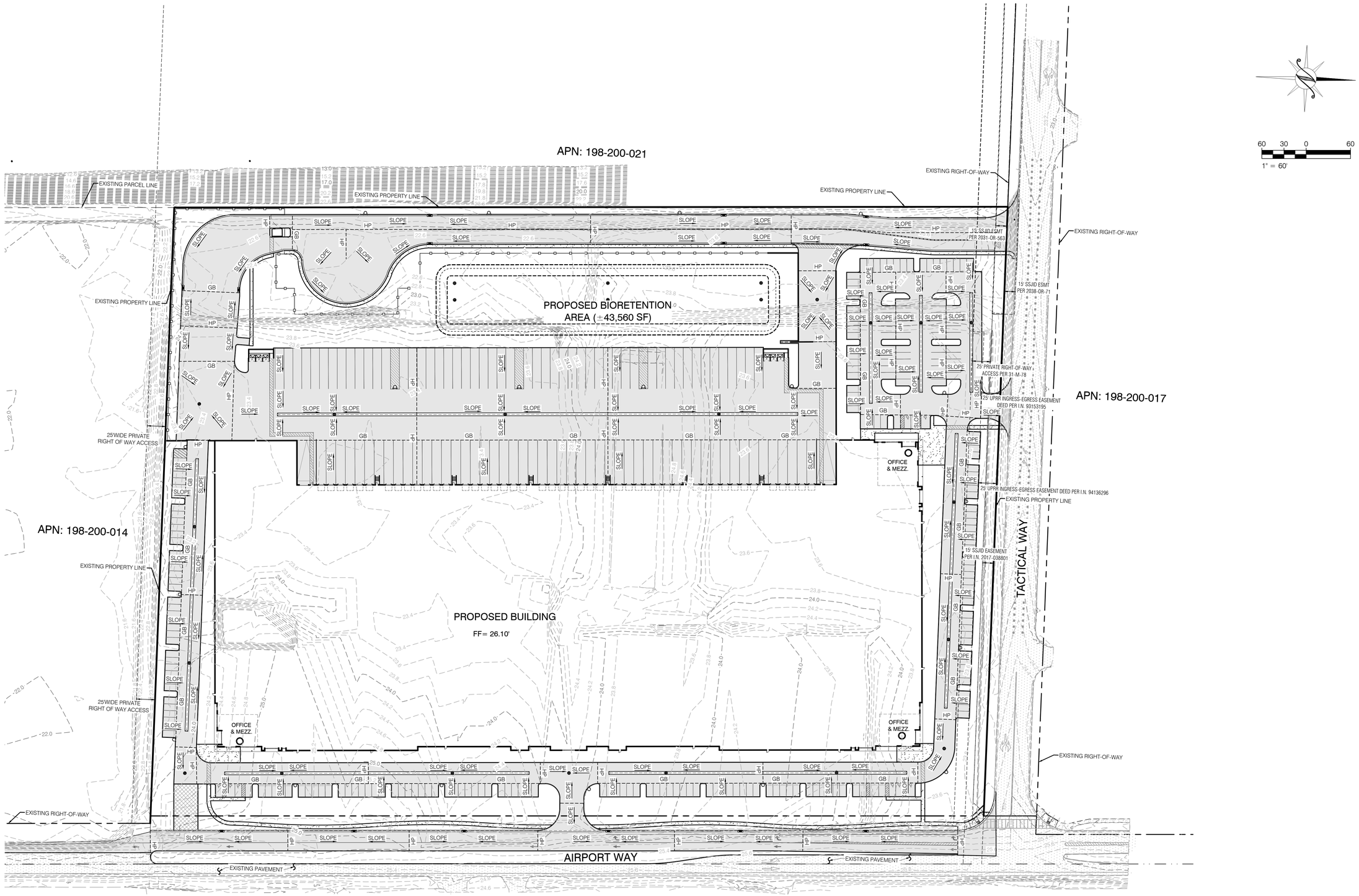
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(209) 524-3525 Phone (209) 524-3526 Fax

JOB #:	21-2967
DATE:	07/27/2022
SCALE:	AS SHOWN
DRAWN:	JC
DESIGN:	CMW
CHKD:	CMW

SHEET NUMBER

C3.1

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60 30 0 60

1" = 60'

CALL BEFORE YOU DIG 811 800-227-2600

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER M. WHITE 43781 STATE OF CALIFORNIA

PRELIMINARY NOT FOR CONSTRUCTION

NO.	DESCRIPTIONS	REVISIONS	DATE	APPROVED

GRADING AND DRAINAGE PLAN

CONCEPTUAL PLANNING PLANS FOR AIRPORT BUSINESS CENTRE NORTH
MANTECA, CALIFORNIA

NorthStar Engineering Group, Inc.
• CIVIL ENGINEERING • SURVEYING • PLANNING •
620 12th Street Modesto, CA 95354
(209) 524-3525 Phone (209) 524-3526 Fax

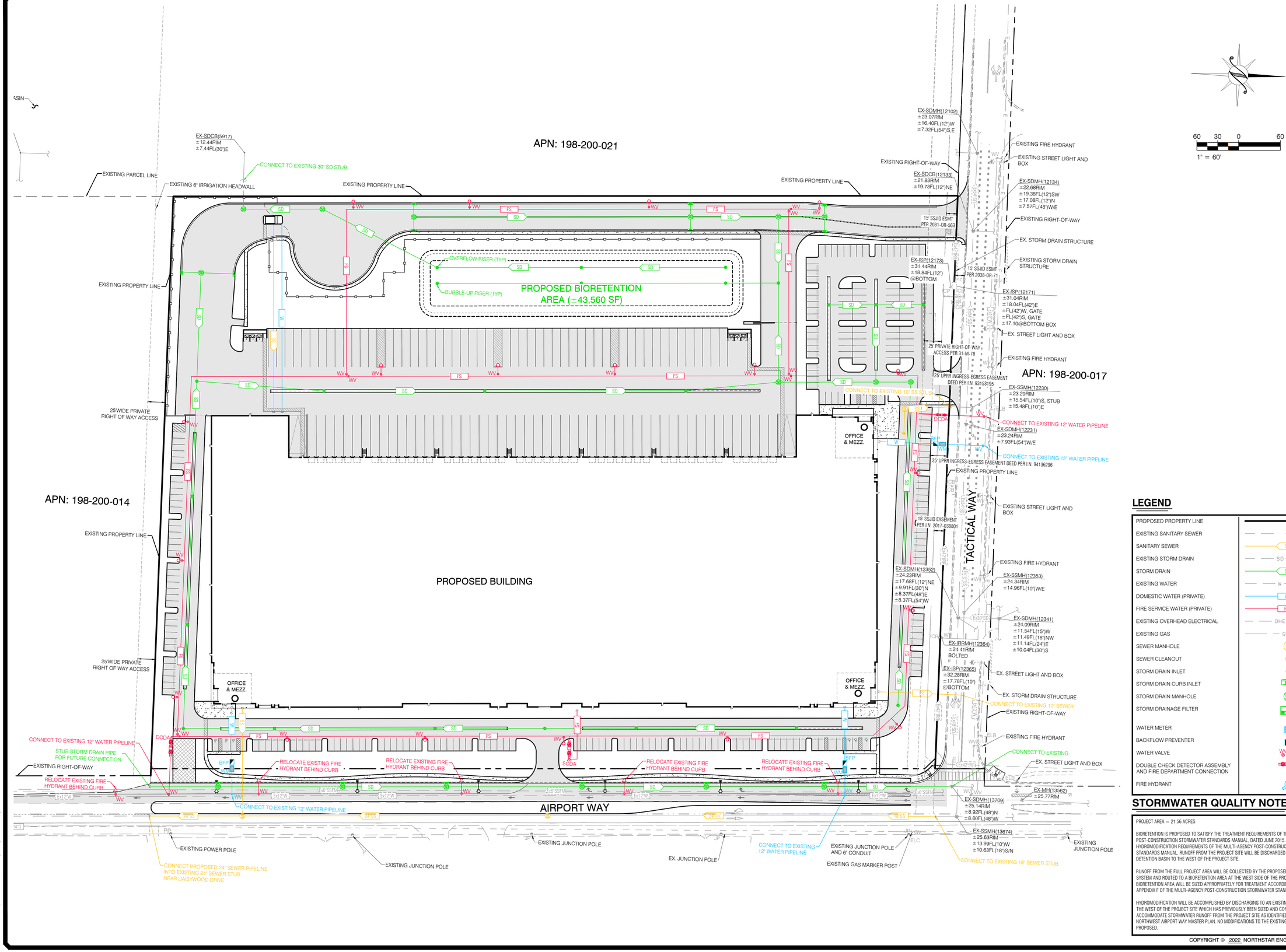
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DATE:	07/27/2022
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DRAWN:	JC
DESIGN:	CMW
CHKD:	CMW

SHEET NUMBER

C4.1

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LEGEND

PROPOSED PROPERTY LINE	
EXISTING SANITARY SEWER	
SANITARY SEWER	SS
EXISTING STORM DRAIN	SD
STORM DRAIN	SD
EXISTING WATER	W
DOMESTIC WATER (PRIVATE)	W
FIRE SERVICE WATER (PRIVATE)	FS
EXISTING OVERHEAD ELECTRICAL	OHE
EXISTING GAS	G
SEWER MANHOLE	S
SEWER CLEANOUT	SCO
STORM DRAIN INLET	
STORM DRAIN CURB INLET	
STORM DRAIN MANHOLE	SD
STORM DRAINAGE FILTER	
WATER METER	
BACKFLOW PREVENTER	
WATER VALVE	WV
DOUBLE CHECK DETECTOR ASSEMBLY AND FIRE DEPARTMENT CONNECTION	
FIRE HYDRANT	

STORMWATER QUALITY NOTE

PROJECT AREA = 21.56 ACRES

BIORETENTION IS PROPOSED TO SATISFY THE TREATMENT REQUIREMENTS OF THE MULTI-AGENCY POST-CONSTRUCTION STORMWATER STANDARDS MANUAL, DATED JUNE 2015. TO SATISFY THE HYDROMODIFICATION REQUIREMENTS OF THE MULTI-AGENCY POST-CONSTRUCTION STORMWATER STANDARDS MANUAL, RUNOFF FROM THE PROJECT SITE WILL BE DISCHARGED INTO AN EXISTING DETENTION BASIN TO THE WEST OF THE PROJECT SITE.

RUNOFF FROM THE FULL PROJECT AREA WILL BE COLLECTED BY THE PROPOSED STORM DRAINAGE SYSTEM AND ROUTED TO A BIORETENTION AREA AT THE WEST SIDE OF THE PROJECT SITE. THE BIORETENTION AREA WILL BE SIZED APPROPRIATELY FOR TREATMENT ACCORDING TO SECTION 6.2 AND APPENDIX F OF THE MULTI-AGENCY POST-CONSTRUCTION STORMWATER STANDARDS MANUAL.

HYDROMODIFICATION WILL BE ACCOMPLISHED BY DISCHARGING TO AN EXISTING DETENTION BASIN TO THE WEST OF THE PROJECT SITE WHICH HAS PREVIOUSLY BEEN SIZED AND CONSTRUCTED TO ACCOMMODATE STORMWATER RUNOFF FROM THE PROJECT SITE AS IDENTIFIED IN THE CITY OF MANTECA NORTHWEST AIRPORT WAY MASTER PLAN. NO MODIFICATIONS TO THE EXISTING DETENTION BASIN ARE PROPOSED.

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REGISTERED PROFESSIONAL ENGINEER JOSEPH C. CHINN No. 43128 STATE OF CALIFORNIA

PRELIMINARY NOT FOR CONSTRUCTION

NO.	DESCRIPTIONS	DATE	APPROVED

REVISIONS

COMPOSITE UTILITY AND STORMWATER QUALITY PLAN

CONCEPTUAL PLANNING PLANS FOR AIRPORT BUSINESS CENTRE NORTH

MANTECA, CALIFORNIA

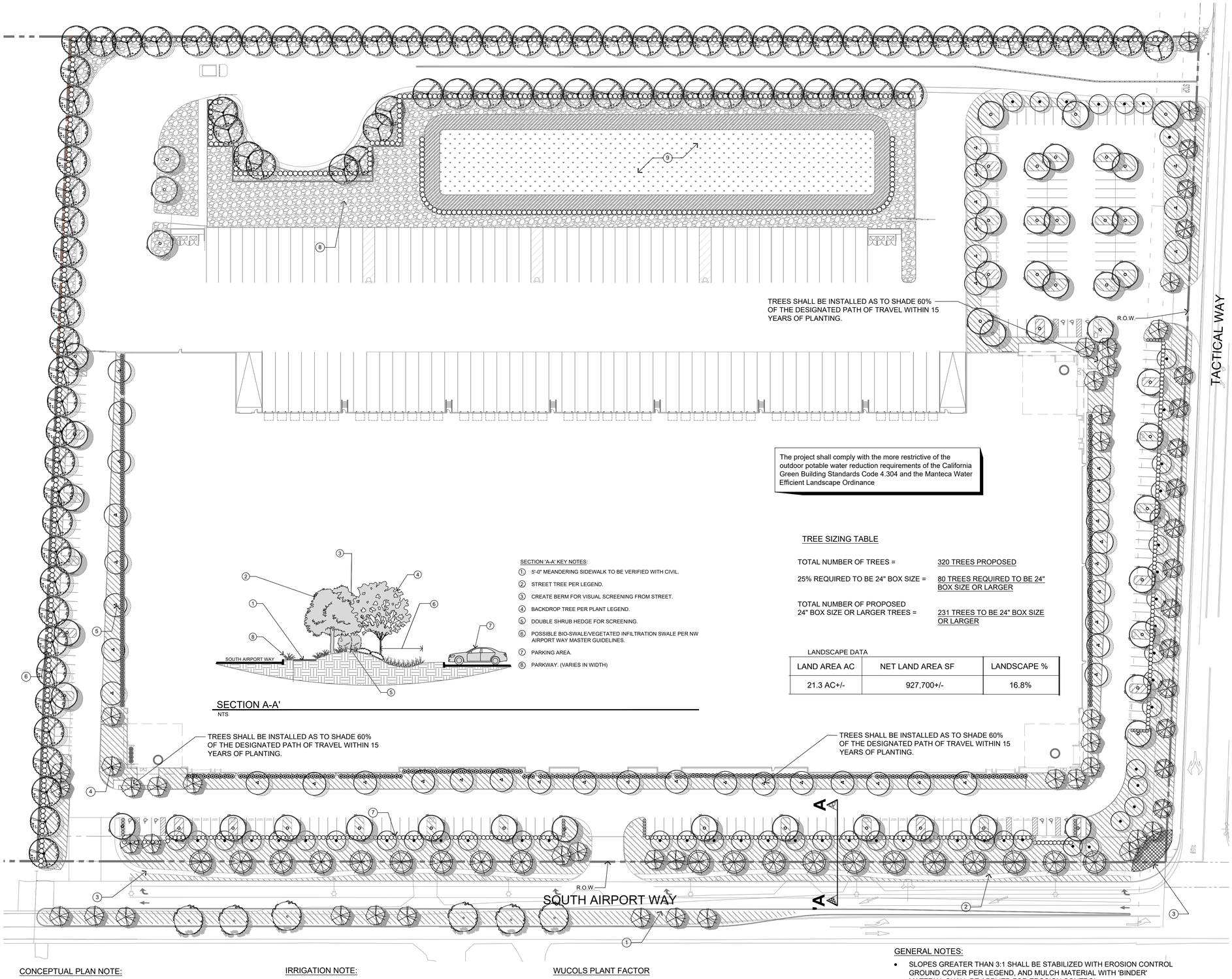
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DESIGN:	CMW
CHKD:	CMW

SHEET NUMBER

C5.1

PLOTTED: 7/27/2022 15:56 PLOTTED BY: Jcabrera
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The project shall comply with the more restrictive of the outdoor potable water reduction requirements of the California Green Building Standards Code 4.304 and the Manteca Water Efficient Landscape Ordinance

SECTION A-A'
NTS

SECTION 'A-A' KEY NOTES:

1. 5'-0" MEANDERING SIDEWALK TO BE VERIFIED WITH CIVIL.
2. STREET TREE PER LEGEND.
3. CREATE BERM FOR VISUAL SCREENING FROM STREET.
4. BACKDROP TREE PER PLANT LEGEND.
5. DOUBLE SHRUB HEDGE FOR SCREENING.
6. POSSIBLE BIO-SWALE/VEGETATED INFILTRATION SWALE PER NW AIRPORT WAY MASTER GUIDELINES.
7. PARKING AREA.
8. PARKWAY. (VARIES IN WIDTH)

TREE SIZING TABLE

TOTAL NUMBER OF TREES =	320 TREES PROPOSED
25% REQUIRED TO BE 24" BOX SIZE =	80 TREES REQUIRED TO BE 24" BOX SIZE OR LARGER
TOTAL NUMBER OF PROPOSED 24" BOX SIZE OR LARGER TREES =	231 TREES TO BE 24" BOX SIZE OR LARGER

LANDSCAPE DATA

LAND AREA AC	NET LAND AREA SF	LANDSCAPE %
21.3 AC+/-	927,700+/-	16.8%

TREES

SYMBOL	TREE NAME	QTY.	WUCOLS
	PROPOSED STREET TREE ALONG TACTICAL WAY PLATANUS ACERIFOLIA, LONDON PLANE TREE 24" BOX SIZE @ 40'-0" O.C.	15	M
	STREET TREE ALONG SOUTH AIRPORT WAY KOELREUTERIA BIPINNATA, CHINESE FLAME TREE 24" BOX SIZE @ 40'-0" O.C.	20	M
	STREET TREE AT MEDIAN ISLAND QUERCUS AGRIFOLIA, COAST LIVE OAK 24" BOX SIZE	6	M
	DROUGHT TOLERANT FLOWERING CANOPY TREE CHITALPA TASHKATENSIS, CHITALPA TREE 36" BOX SIZE. MULTI-TRUNK.	43	VL
	PARKING LOT SHADE TREE RHUS LANCEA, AFRICAN SUMAC 24" BOX SIZE.	51	L
	BACKDROP STREET TREE GEIJERA PARVIFLORA 24" BOX SIZE.	53	M
	PINUS ELDARICA, MONDELL PINE 24" BOX SIZE.	43	L
	PERIMETER PROPERTY LINE TREES QUERCUS AGRIFOLIA, COAST LIVE OAK 15 GAL. SIZE.	89	L

SHRUBS- SHRUBS SHALL CONSIST OF THE FOLLOWING:

SYMBOL	SHRUB NAME	WUCOLS
	DODONAEA VISCOSA 'PURPUREA', HOPSEED BUSH 5 GAL. SIZE	L
	LEUCOPHYLLUM FRUTESCENS, TEXAS RANGER 5 GAL. SIZE	L
	WESTRINGIA FRUTICOSA, COAST ROSEMARY 5 GAL. SIZE	L
	ROSMARINUS 'TUSCAN BLUE', ROSEMARY SHRUB 5 GAL. SIZE	L
	CALLISTEMON 'LITTLE JOHN', DWARF BOTTLE BRUSH 5 GAL. SIZE	L
	LIGUSTRUM TEXANUM, TEXAS PRIVET 5 GAL. SIZE	L

GROUND COVER AND SHRUB MASSES - GROUND COVER AND SHRUB MASSES SHALL BE CHOSEN FROM THE FOLLOWING:

SYMBOL	GROUND COVER/SHRUB MASS NAME	WUCOLS
	SENECIO MANDRALISCAEA, BLUE CHALK STICKS 1 GAL. SIZE @ 24" O.C.	L
	ROSMARINUS O. 'PROSTRATUS', CREEPING ROSEMARY 1 GAL. SIZE @ 30" O.C.	L
	SALVIA GREGGII, AUTUMN SAGE 1 GAL. SIZE @ 36" O.C.	L
	MUHLENBERGIA RIGENS, DEER GRASS 1 GAL. SIZE @ 42" O.C.	L
	SALVIA CLEVELANDII, CLEVELAND SAGE 5 GAL. SIZE @ 48" O.C.	L
	BACCHARIS PILULARIS, COYOTE BRUSH 1 GAL. SIZE @ 36" O.C.	
	$\frac{3}{4}$" SIZE CRUSHED ROCK GRAVEL OVER WEED FILTER FABRIC AT TRUCK YARD AREA. 3" LAYER	

NOTE: ALL PROPOSED LANDSCAPE SHALL COMPLY WITH THE NORTHWEST AIRPORT WAY MASTER PLAN.

NON-IRRIGATED SEED MIX AT DETENTION BASIN

SPECIES	COMMON NAME	BULK #'s/ACRE	MIN % PLS*
Hordeum brachyantherum californicum	California barley	8.00	80
Melica californica	California Melic	6.00	65
Festuca microstachys	Small fescue	4.00	85
Sporobolus airiodes	Alkali sacaton	1.00	60
Phacelia campanularia	California bluebells	1.00	75
Eschscholzia californica	California poppy	2.00	75
Phacelia distans	Fernleaf phacelia	0.50	70
Lasthenia californica	Goldfields	0.50	60
Lupinus nanus	Sky lupine	2.00	75
		25.00	

* MIN % PLS (Pure Live Seed) = Seed Purity x Germination Rate

For additional plant characteristics visit the plant database portion of our website at www.sssedds.com.

DESIGN KEY NOTES

1. NEW LANDSCAPE MEDIAN ISLAND ALONG SOUTH AIRPORT WAY
2. SIDEWALK PER CIVIL PLANS
3. DROUGHT TOLERANT GROUND COVER AND SHRUBS PER LEGEND
4. FLOWERING ACCENT TREES AT PROJECT ENTRY AND STREET INTERSECTION
5. EVERGREEN SCREEN TREE
6. SCREEN SHRUBS ALONG PROPERTY LINE
7. SCREEN SHRUBS ALONG PARKING LOT AREA
8. $\frac{3}{4}$" CRUSHED ROCK GRAVEL OVER WEED FILTER FABRIC AT TRUCK YARD AREA
9. DETENTION BASIN PER CIVIL DWGS.

CONCEPTUAL PLAN NOTE:

THIS IS A CONCEPTUAL LANDSCAPE PLAN. IT IS BASED ON PRELIMINARY INFORMATION WHICH IS NOT FULLY VERIFIED AND MAY BE INCOMPLETE. IT IS MEANT AS A COMPARATIVE AID IN EXAMINING ALTERNATE DEVELOPMENT STRATEGIES AND ANY QUANTITIES INDICATED ARE SUBJECT TO REVISION AS MORE RELIABLE INFORMATION BECOMES AVAILABLE.

IRRIGATION NOTE:

THE PROJECT WILL BE EQUIPPED WITH A LOW FLOW IRRIGATION SYSTEM CONSISTING OF ET WEATHER BASED SMART CONTROLLER, LOW FLOW ROTORS, BUBBLER AND/ OR DRIP SYSTEMS USED THROUGHOUT. THE IRRIGATION WATER EFFICIENCY WILL MEET OR SURPASS THE CURRENT STATE MANDATED AB-1881 WATER ORDINANCE.

WUCOLS PLANT FACTOR

THIS PROJECT IS LOCATED IN 'WUCOLS' REGION '2- CENTRAL VALLEY'.

H = HIGH WATER NEEDS
M = MODERATE WATER NEEDS
L = LOW WATER NEEDS
VL= VERY LOW WATER NEEDS

GENERAL NOTES:

- SLOPES GREATER THAN 3:1 SHALL BE STABILIZED WITH EROSION CONTROL GROUND COVER PER LEGEND, AND MULCH MATERIAL WITH 'BINDER' MATERIAL SHALL BE APPLIED FOR EROSION CONTROL.
- ROCK RIP-RAP MATERIAL SHALL BE INSTALLED WHERE DRAIN LINES CONNECT TO INFILTRATION AREAS.
- ALL UTILITY EQUIPMENT SUCH AS TRANSFORMERS, BACKFLOW UNITS, FIRE DETECTOR CHECKS AND FIRE CHECK VALVES WILL BE SCREENED WITH EVERGREEN PLANT MATERIAL ONCE FINAL LOCATIONS HAVE BEEN DETERMINED.

SCOTT PETERSON LANDSCAPE ARCHITECT, INC.
2883 VIA RANCHEROS WAY
FALLBROOK, CA 92028
PH: 760-842-8993

Architecture. Design. Relationships.

CONCEPTUAL LANDSCAPE PLAN
AMAZON MANTECA MP2D

MANTECA, CA

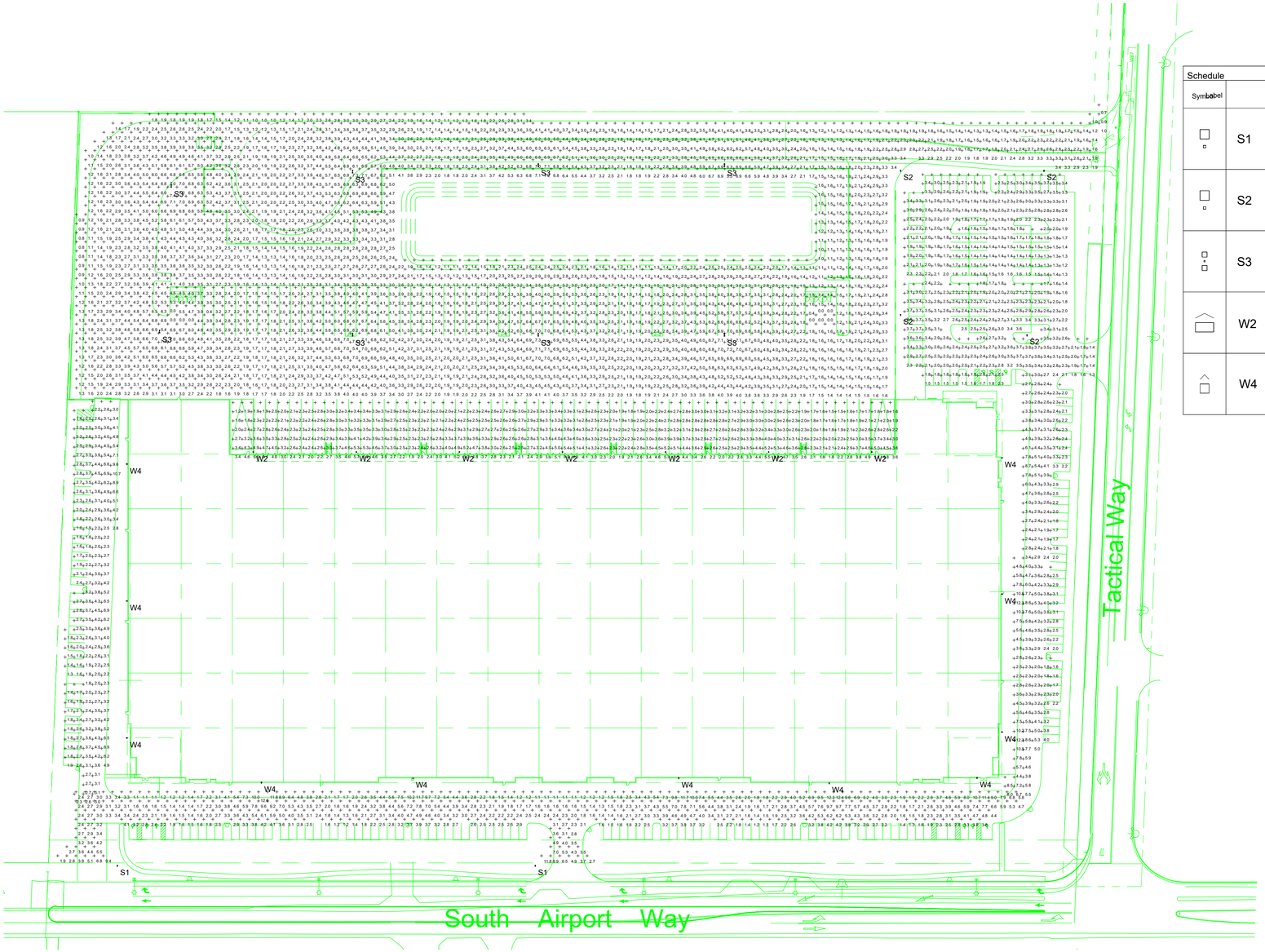
NORTH

0 50' 100' 150'

SCALE: 1" = 50'-0"

AUGUST 2, 2022

L-1



1 PHOTOMETRIC STUDY

SCALE: 1/64" = 1'-0"

Schedule

Symbol	Label	Image	Manufacturer	Catalog Number	Description	Lumens Per Lamp	Light Loss Factor	Wattage
	S1		Lithonia Lighting	RSX4 LED P5 40K R4	RSX Area Luminaire Size 4 P5 Lumen Package 4000K CCT Type R4 Distribution	62594	0.9	483.4963
	S2		Lithonia Lighting	RSX4 LED P5 40K R5	RSX Area Luminaire Size 4 P5 Lumen Package 4000K CCT Type R5 Distribution	63291	0.9	483.4963
	S3		Lithonia Lighting	RSX4 LED P5 40K R5	RSX Area Luminaire Size 4 P5 Lumen Package 4000K CCT Type R5 Distribution	63291	0.9	966.9926
	W2		Lithonia Lighting	WDGE4 LED P6 70CRI RFT 40K	WDGE4 LED WITH P6 - PERFORMANCE PACKAGE, 4000K, 70CRI, FORWARD THROW OPTIC	25586	0.9	185.23
	W4		Lithonia Lighting	RSX4 LED P5 40K R4	RSX Area Luminaire Size 4 P5 Lumen Package 4000K CCT Type R4 Distribution	62594	0.9	483.4963

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
DOCK AREA	+	3.0 fc	6.0 fc	1.2 fc	5.0:1	2.5:1
EAST DRIVE / PARKING	+	2.8 fc	12.3 fc	1.2 fc	10.3:1	2.3:1
SOUTH DRIVE / PARKING	+	3.6 fc	12.6 fc	1.1 fc	11.5:1	3.3:1
WEST DRIVE / PARKING	+	3.2 fc	10.7 fc	1.3 fc	8.2:1	2.5:1
NORTH TRUCK YARD	+	3.1 fc	7.4 fc	0.0 fc	N/A	N/A

Luminaire Locations

Label	MH
S1	30.00
S2	30.00
S3	30.00
W2	30.00
W4	30.00

REVISIONS | BY

HCS Engineering inc.
50 years
4525 Feather River Dr #F, Stockton, CA 95219
209 476 0200 | www.hcs-eng.com

TITLE: PHOTOMETRIC STUDY

PROJECT:
PHOTOMETRIC STUDY FOR:
MANTECA NORTH WAREHOUSE
SOUTH AIRPORT WAY @ TECHNICAL, MANTECA, CA

STAMP



DRAWN: RCS
CHECKED: RCS
DATE: 7/26/2022 3:26:16 PM
SCALE: 1/64" = 1'-0"
JOB: 2017.xxx
SHEET: E1

C:\Users\RichardSmith\Box\2022\0-100\2022.098 NORTHSTAIR AIRPORT\Airport photometric.rvt

APPENDIX F: RESPONSE TO COMMENTS

LIST OF COMMENTERS

Table 1 lists the comments on the Draft IS/MND that were submitted to the City of Manteca (City) during the public review period for the proposed Mitigated Negative Declaration. CEQA statutes do not require a formal response to comment for an Initial Study, however, the City has chosen to provide formal responses to all comment letters for informational purposes. The assigned comment letter or number, letter date, letter author, and affiliation, if presented in the comment letter or if representing a public agency, are also listed. Letters received are coded with letters (A, B, etc.).

TABLE 1 LIST OF COMMENTERS ON DRAFT IS/MND

RESPONSE LETTER	*INDIVIDUAL OR SIGNATORY*	*AFFILIATION*	*DATE*
A	Nicholas Fung	California Department of Transportation	10-31-22
B	Adam Salcido	Unknown	11-2-22
C	Gary Ho	Blum Collins & Ho, LLP	11-2-22
D	Peter Minkel	Central Valley Regional Water Quality Control Board	11-3-22

COMMENTS AND RESPONSES

The lead agency is evaluating and responding to all comments on the that regard an environmental issue. The written response addresses the environmental issue raised and provides a detailed response. The written response is a good faith and reasoned analysis. It is noted that lead agencies need only to respond to significant environmental issues associated with the proposed Project and do not need to provide all the information requested by the commenter, as long as a good faith effort at full disclosure.

RESPONSES TO COMMENT LETTERS

Written comments on the CEQA document are reproduced on the following pages, along with responses to those comments. To assist in referencing comments and responses, the following coding system is used:

- Each letter is lettered or numbered (i.e., Letter A) and each comment within each letter is numbered (i.e., comment A-1, comment A-2).

CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, GOVERNOR

California Department of Transportation

OFFICE OF THE DISTRICT 10 DIRECTOR
P.O. BOX 2048 | STOCKTON, CA 95201
(209) 948-7943 | FAX (209) 948-7179 TTY 711
www.dot.ca.gov

October 31, 2022

10-SJ-5-PM R019.058
Airport Business Center North
SPC 22-45
IS-MND

Mallorie Fenrich
City of Manteca
Development Services Dept.
1215 W. Center Street, Ste 201
Manteca, CA 95337

Dear Ms. Fenrich:

The California Department of Transportation appreciates the opportunity to review the proposed Airport Business Center North at 3045, 3123, and 3157 N. Airport Way, Manteca. The project proposes a 360,000 square foot distribution building with 242 parking stalls and 93 trailer parking stalls. This site is in the Northwest Airport Way Master Plan and is directly north of the Airport Business Center at 2803 N. Airport Way, which Caltrans previously reviewed on April 21, 2021. The Department has the following comments:

1. The submittal did not include the electronic Synchro/Simtraffic files requested in our previous letter. Multiple attempts were made to contact Fehr and Peers to obtain these files but we have not received them. Therefore, we are unable to review the TIS and consider this submittal incomplete. Please submit these files to Caltrans for review prior to project approval and give us at least three weeks to respond. A-1

2. Please provide a Traffic Impact Study to Caltrans for review and comment prior to project approval. The Traffic Impact Study should include the information requested in the comments below. A-2

3. The IS-MND should include a table responding to each of the comments in our previous letter dated August 19, 2022. Those comments are listed below. A-3

"Provide a safe and reliable transportation network that serves all people and respects the environment"

c

4. Provide Traffic Trip Generation Figures and show trip percentage (cars and heavy trucks) on each of the following interchanges. A-4
    a. I-5/Lathrop Road interchange
    b. SR 99/Lathrop Road interchange
    c. I-5/Roth Road interchange

5. Provide peak hour queuing operation analysis for the interchanges mentioned in Comment 2 and provide mitigations of these impacts if any for the following scenarios using Synchro/Simtraffic version 11. If the project scenarios are to be phased over several years, the analysis should specify the years of each phase and analyze the operations impacts of each phase. A-5
    a. Existing Conditions
    b. Project-Only Condition
    c. Existing Conditions plus Project
    d. Cumulative Conditions (Existing Conditions plus Other Approval and Pending Project without this project)
    e. Cumulative Conditions with this project

6. Provide Figures to show AM (PM) Peak Hours traffic volumes and Tables to show the 95th Percentile queue length for AM (PM) Peak Hours for the following State facilities: A-6
    a. I-5/Lathrop Road interchange
    b. SR 99/Lathrop Road interchange
    c. I-5/Roth Road interchange

7. The 95th Percentile queue length should be based on Simtraffic 5 runs, four 15-minute intervals with 10-minute seeding period. A-7

8. STAA Truck off-tracking analysis is required at all interchanges, intersections, and ramps mentioned in Comment 2. The analysis needs to show off-tracking does not encroach onto opposing lanes, will not kink within the turning paths, and will allow 2 ft lateral clearance provided between the truck wheel paths and edge of pavement, dikes, and curbs. A-8

9. The following interchanges are signed for STAA Terminal Access. However, the City of Lathrop and City of Manteca need to work together regarding STAA truck access on Lathrop Road between Harlan Road and W. Frontage Road. A-9

    a. I-5/Lathrop Road interchange: STAA Terminal Access located from I-5 to/from the east of I-5 and ending at Harlan Road. Please note that there is no existing STAA access east of Harlan Road.

b. SR 99/Lathrop Road interchange: STAA Terminal Access located from SJ-99 to/from the west of SR 99 to W. Frontage Road (to Delicato Winery). Please note that there is no existing STAA access west of the W. Frontage Road.
c. I-5/Roth Road interchange: STAA Terminal Access located from I-5/Roth Road interchange to/from the east of I-5 to Airport Way.

A-9 Cont'd

10. The TIS summary section should include detailed improvements on State Facilities. If there are no improvements on State facilities, it should provide detailed reasons explaining why improvements on Sate facilities are not required.

A-10

11. SB 743 under CEQA requires local development land use projects to provide safe transportation, reduce per capital VMT, increase accessibility by mode share of bicycle, pedestrian, and transit travel, and reduce GHG emissions. Caltrans also recommends the establishment of programs or methods to reduce VMT and support appropriate bicycle, pedestrian, and transit infrastructure.

A-11

12. The provided site plan shows eight bicycle parking spaces on the project site. Caltrans recommends the consideration of bike lockers and employee facilities that would allow for showers and changing areas for those travelers that may be caught in inclement weather during their trip to work.

A-12

If you have any questions or would like to discuss our comments in more detail, please contact Nicholas Fung at (209) 948-7190 or myself at (209) 483-2582.

Sincerely,

Nicholas Fung
FOR
TOM DUMAS
Chief, Office of Metropolitan Planning

"Provide a safe and reliable transportation network that serves all people and respects the environment"

Response to Letter A: California Department of Transportation

Response A-1: The electronic Synchro analysis files were submitted to Caltrans for their use in reviewing the Initial Study and Mitigated Negative Declaration (ISMND) for the Airport Business Centre North Project dated October 4, 2022.

Response A-2: The Traffic Impact Study for the Airport Business Centre North Project was included in Appendix B of the ISMND.

Response A-3: The Airport Business Centre North Project is an ISMND and not an EIR. The Traffic Impact Study includes the requirements of analyzing trip generation analysis (cars and trucks), vehicle miles traveled analysis (employee home based work trips), roadway segment analysis (average daily traffic) and intersection level of service (am and pm peak hour) analysis.

Response A-4: The I-5 / Roth Road and I-5 / Lathrop Road interchanges are included in the traffic analysis as shown in Tables 6 (Existing) and 7 (Existing Plus Project) for roadway segment analysis and Tables 8 (Cumulative No Project) and 9 (Cumulative With Project) for intersection level of service analysis.

Response A-5: Under Existing Conditions, neither the I-5 / Roth Road or I-5 / Lathrop Road interchanges operate below acceptable level of service conditions. Under Cumulative No Project Conditions, planned improvements have been identified and fees being collected to improve the I-5 / Roth Road and I-5 / Lathrop Road interchanges to serve projected growth in population and employment in the City of Lathrop, City of Manteca, Unincorporated San Joaquin County, and City of Stockton. The Airport Business Centre North Project does not result in operational impacts to either the I-5 / Roth Road and I-5 / Lathrop Road interchanges. Therefore, no mitigation measures are required under Existing Plus Project Conditions or Cumulative Plus Project Conditions beyond paying their Regional SJCOG and Local City of Manteca Traffic Impact Fees at the time when building permits are required.

Response A-6: The Airport Business Centre North Project does not result in impacts to either the I-5 / Roth Road and I-5 / Lathrop Road interchanges. Therefore, figures showing 95th Percentile queue lengths were not prepared.

Response A-7: The Airport Business Centre North Project does not result in operational impacts to either the I-5 / Roth Road and I-5 / Lathrop Road interchanges. Therefore, SimTraffic analysis and figures showing 95th Percentile queue lengths were not prepared.

Response A-8: An STAA truck terminal access application is being required as part of the Airport Business Centre North Project. This would require all STAA trucks to use the Intermodal Way / Roth Road intersection to and from the Interstate 5 / Roth Road interchange. As part of this application, the STAA truck turning analysis will be submitted to the City of Manteca and Caltrans.

Response A-9: Airport Business Centre North Project STAA trucks would not be allowed to use the I-5 / Lathrop Road interchange or the SR 99 / Lathrop Road interchange.

Response A-10: The Airport Business Centre North Project does not result in impacts to either the I-5 / Roth Road interchange, I-5 / Lathrop Road interchange, or Interstate 5 mainline.

Response A-11: The commentors statement regarding establishment of programs and methods to reduce VMT and support appropriate bicycle, pedestrian and transit infrastructure have been considered in the development of the City of Manteca Active Transportation Plan and General Plan Update Policies.

Response A-12: In addition to the eight bicycle parking spaces, the Airport Business Centre North Project includes bike lockers and employee facilities to encourage the use of alternative transportation (bicycling and walking).

Fenrich, Mallorie

From: A S <asalcido.07@gmail.com>
Sent: Wednesday, November 2, 2022 4:35 PM
To: Fenrich, Mallorie
Cc: Unknown; jbourgeois029@gmail.com; Terrance Lucio; PATRICK HANINGER
Subject: Airport Business Centre North Project

WARNING! This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good Afternoon Ms. Fenrich,

Please provide any updates to the above mentioned project.

I am requesting under Public Resource Code Section 21092.2 to add the email addresses and mailing address below to the notification list, regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project.

t.lucio57@gmail.com

phaninger1@gmail.com

jbourg2271@aol.com

jbourgeois029@gmail.com

asalcido.07@gmail.com

Mailing Address:

P.O. Box 79222

Corona, CA 92877

Please confirm receipt of this email.

Thank You,

Adam Salcido

1

Response to Letter B: Adam Salcido

Response B-1: This commenter requests that notice be sent to several email recipients pursuant to Public Resources Code Section 21092.2. This comment is noted.

BLUM COLLINS & HO, LLP
ATTORNEYS AT LAW
AON CENTER
707 WILSHIRE BOULEVARD
SUITE 4880
LOS ANGELES, CALIFORNIA 90017
(213) 572-0400

November 2, 2022

Mallorie Fenrich, Associate Planner
City of Manteca
1215 West Center Street, Suite 201
Manteca, CA 95337

VIA EMAIL TO:
mfenrich@ci.manteca.ca.us

Subject: Comments on Airport Business Center North Project (SCH NO. 2022100047)

Dear Ms. Fenrich:

Thank you for the opportunity to comment on the Mitigated Negative Declaration (MND) for the proposed Airport Business Center North Project. Please accept and consider these comments on behalf of Golden State Environmental Justice Alliance. Also, Golden State Environmental Justice Alliance (GSEJA) formally requests to be added to the public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project. Send all communications to Golden State Environmental Justice Alliance P.O. Box 79222 Corona, CA 92877.

1.0 Summary

The project proposes to construct and operate one 360,000-sf industrial building. The facility will operate as a distribution warehouse. The building would provide approximately 355,000 sf of warehouse space and 5,000 sf of office space. The building proposes 46 truck/trailer loading dock spaces, 93 truck/trailer parking stalls, and 242 passenger car parking stalls. The proposed Project site has a Zoning designation of Master Plan (MP), General Plan Land Use designation of Light Industrial (LI), and is located within the Northwest Airport Way Master Plan area that guides the development of industrial uses, community commercial uses, and associated site improvements on 390 acres. An Environmental Impact Report (EIR) was prepared for the Northwest Airport Way Master Plan area (State Clearinghouse # 2010022024) in August 2010. Several EIR Addendums and Mitigated Negative Declarations have been completed for projects within the Master Plan area.

C-1

2.0 Project Description

The MND does not include a floor plan, detailed grading plan, or detailed site plan for the proposed project. The basic components of a Planning Application include a detailed site plan, floor plan, grading plan, elevations, and written narrative. The site plan provided in Figure 3: Site Plan does not provide any pertinent information such as the earthwork quantity notes, parking requirements, or floor area ratio calculations. This figure has been edited for public review and excludes pertinent information required for consistency analysis with applicable requirements. Figure 4: Project Elevations has also been edited for public review and does not provide any information, such as the materials utilized or the building heights. Additionally, a grading plan and floor plans have not been provided for public review. The MND has excluded these required application items from public review and edited them into forms that do not represent them meaningfully, which does not comply with CEQA's requirements for adequate informational documents and meaningful disclosure (CEQA § 15121 and 21003(b)). Incorporation by reference (CEQA § 15150 (f)) is not appropriate as these documents contribute directly to analysis of the problem at hand. Providing this information is vital as the MND does not provide any details about the onsite/offsite grading required by the proposed project. An EIR must be prepared to include all application items for review, analysis, and comment by the public and decision makers.

C-2

2.1 Project Piecemealing & Tiering

The MND cites tiering criteria set forth in CEQA Guidelines Section 15152 as it relates to the "Northwest Airport Way Master Plan EIR and the Addendum to the Northwest Airport Way Master Plan EIR." The MND states that these "documents can be found at the City of Manteca website at the following location: https://www.ci.manteca.ca.us/CommunityDevelopment/Planning%20Division/Pages/Planning-Division-Documents.aspx." However, this weblink does not provide the public with access to the Addendum to the Northwest Airport Way Master Plan EIR, which does not comply with CEQA Guidelines Section 15152 (f) that states "when tiering is used, the later EIRs or negative declarations shall refer to the prior EIR and state where a copy of the prior EIR may be examined" or CEQA Guidelines Section 21003(b) requirements for meaningful disclosure. Also, the Project Background states that "*Several* EIR Addendums and Mitigated Negative Declarations" have been prepared for the Northwest Airport Way Master Plan EIR, which are not included either. An EIR must be prepared in order to provide an adequate, accurate informational document.

C-3

Further, Section 1.1.2: Purpose and Authority of the Northwest Airport Way Master Plan Draft EIR[1] (August 2010) states that "this Draft EIR provides a project-level analysis of the

C-4

[1] NAWMP DEIR
https://www.ci.manteca.ca.us/CommunityDevelopment/Planning%20Division/Planning%20Division%20Documents/Master%20And%20Specific%20Plans/Northwest%20Airport%20Way%20Master%20Plan/NW%20Airport%20Way%20Master%20Plan%20DEIR.pdf

environmental effects of the Northwest Airport Way Master Plan and the non-master plan annexations." CEQA Guidelines Section 15152 (f) states that "a later EIR shall be required when the initial study or other analysis finds that the later project may cause significant effects on the environment that were not adequately addressed in the prior EIR." The environmental analysis within the MND severely misrepresents the project and under-represents the project's significant impacts. This on its face warrants the production of an EIR for the proposed project in compliance with CEQA Guidelines Section 15152 (f). The production of an EIR is also necessary as significant new information has been produced since the August 2010 Northwest Airport Way Master Plan EIR, including the VMT analysis requirements enacted in 2020 by SB 743. These impacts were not addressed at all by the 2010 EIR and an EIR for the later tiered project (Airport Business Center North) must be produced.

C-4 (Continued)

Additionally, the MND does not accurately or adequately describe the project, meaning "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment" (CEQA § 15378). The proposed project is a piecemealed portion of a larger overall project in the immediate vicinity known as Centerpoint Intermodal Center Manteca[2]. This project includes at minimum the following known buildings:

C-5

1. Centerpoint South Project aka Pinnacle Commerce (SCH No. 2021040046; 99,514 sf of industrial warehouses developed by Centerpoint; Notice of Determination published March 8, 2022)
2. Centerpoint Building 3 (SCH No. 2010022024; 746,790 sf of industrial warehouse developed by Centerpoint; Notice of Determination published December 21, 2018)
3. Airport Business Centre Project (SCH No. 2021040045; 141,360 sf of industrial warehouse developed by Centerpoint; Notice of Determination published August 19, 2021)

[2] Centerpoint Intermodal Center Manteca https://centerpoint.com/parks/centerpoint-intermodal-center-manteca/

4. Centerpoint Intermodal Way Extension Project (SCH No. 2020050580; Notice of Determination published June 22, 2022) to connect the constructed northern portion of Intermodal Way to the approved, but not yet constructed, portion of Intermodal Way along the



western boundary of CenterPoint Container Yard 2. This project is required to provide vehicular access by extending roadways to all of the project sites in the Centerpoint Intermodal Center.

5. GBxManteca (SCH No. 2022060520; 295,176 sf industrial beverage distribution building developed by Centerpoint)

The site plan depicted here includes a partial building layout of the proposed Centerpoint Intermodal Center Manteca[3]. Centerpoint Intermodal Center Manteca is described as "a 190-acre

C-5
(Continued)

[3] Centerpoint Intermodal Center Manteca https://centerpoint.com/parks/centerpoint-intermodal-center-manteca/

logistics center." Other materials provide further details noting the park is a "190-acre campus accommodating up to 3.1M SF of warehouse and distribution space.[4]"

C-5 (Continued)

Environmental Checklist

III. Air Quality, VI. Energy, and VIII. Greenhouse Gas Emissions

Please see attached document for SWAPE's comprehensive technical analysis. The MND does not include for analysis relevant environmental justice issues in reviewing potential impacts, including cumulative impacts from the proposed project. This is especially significant as the surrounding community is highly burdened by pollution. According to CalEnviroScreen 4.0[5], CalEPA s screening tool that ranks each census tract in the state for pollution and socioeconomic vulnerability, the proposed project s census tract (6077005119) ranks worse than 98% of the rest of the state overall in pollution burden. The surrounding community, including Discovery Challenge Academy, Central Valley Christian Academy, Widmer Elementary School, residences to the north, west, and east, and adjacent SB 535 Census Tracts 6077005135 (east), 6077003803 (north), 6077005127 (west), 6077005130 (west), 6077005129 (west), 6077005122 (south), bears the impact of multiple sources of pollution and is more polluted than average on every pollution indicator measured by CalEnviroScreen. For example, the project census tract ranks in the 100th percentile for groundwater threats, 98th percentile for drinking water impacts, 92nd percentile for hazardous waste impacts, 90th percentile for impacts from cleanup sites, and 87th percentile for impaired waters. The project census tract also ranks in the 57th percentile for ozone burden, the 53rd percentile for particulate matter (PM) 2.5 burden, 54th percentile for diesel PM burden, and the 56th percentile for traffic related impacts, which are all typically attributed to heavy vehicular activity in the area.

C-6

Further, the census tract is a diverse community including 39% Asian-American, 30% Hispanic, and 9% African-American residents, which are especially vulnerable to the impacts of pollution. The community has a high rate of low educational attainment, meaning 56% of the census tract over age 25 has not attained a high school diploma, which is an indication that they may lack health insurance or access to medical care. Medical care is vital for this census tract as it ranks in the 69th percentile for incidence of asthma and 55th percentile for incidence of cardiovascular disease. The community also has a high rate of linguistic isolation, meaning 58% of the census tract speaks little to no English and faces further challenges and inequities due to this.

[4] Centerpoint https://centerpoint.com/wp-content/uploads/2016/04/02-Manteca-Pad-Ready-2pg-R1.pdf
[5] CalEnviroScreen 4.0 https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40

Additionally, the project s census tract (6077005119) and the census tracts adjacent to the project site (6077005135 (east), 6077003803 (north), 6077005127 (west), 6077005130 (west), 6077005129 (west), 6077005122 (south)) are identified as SB 535 Disadvantaged Communities[6], which is not discussed or presented for analysis in the MND.

California s Building Energy Code Compliance Software (CBECC) is the State's only approved energy compliance modeling software for non-residential buildings in compliance with Title 24[7]. CalEEMod is not listed as an approved software. The CalEEMod-based modeling in Appendix A does not comply with the 2022 Building Energy Efficiency Standards and under-reports the project s significant Energy impacts and fuel consumption to the public and decision makers. Since the MND did not accurately or adequately model the energy impacts in compliance with Title 24, a finding of significance must be made. An EIR with modeling using the approved software (CBECC) must be circulated for public review in order to adequately analyze the project s significant environmental impacts. This is vital as the MND utilizes CalEEMod as a source in its methodology and analysis, which is clearly not the approved software.

C-6
(Continued)

XI. Land Use and Planning

The MND concludes that "the proposed Project would not conflict with any goals, policies, or implementing actions contained within the General Plan." However, the MND does not provide a consistency analysis with any General Plan (existing 2023 General Plan or proposed General Plan Update) goals and policies. An EIR must be prepared that includes a consistency analysis with all General Plan goals and policies (the current 2023 General Plan and the proposed General Plan update), including but not limited to the following:

1. Goal AQ-2. Integrate air quality planning with land use and transportation planning processes in order to reduce vehicle miles traveled in the City and by commuters.
2. LU-I-3. The City shall monitor implementation of the growth management system and new commercial and industrial development so that General Plan objectives for a balanced community are achieved.
3. C-P-49: The city shall require that new industrial development pay a fair share toward improvements required to accommodate heavy vehicles, including increased pavement wear.

C-7

[6] OEHHA SB 535 Census Tracts https://oehha.ca.gov/calenviroscreen/sb535
[7] California Energy Commission 2022 Energy Code Compliance Software https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-1

4. C-P-53: The City shall establish a requirement for a TDM program in any business park, industrial or commercial land use that employs more than 50 full time equivalent employees.

Further, the MND does not provide an analysis of all applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect, such as the applicable Air Quality Management Plan (AQMP). The MND also does not provide any consistency analysis with the San Joaquin County Council of Governments (SJCOG) adopted 2018 RTP/SCS[8]. Due to errors in modeling and modeling without supporting evidence as noted throughout this comment letter, the proposed project has signifiant potential for inconsistency with Policy 1 to enhance the environment for existing and future generations and conserve energy, Strategy 3 to improve air quality by reducing transportation-related emissions, Strategy 4 to improve regional transportation system efficiency, and Strategy 8 to improve major transportation corridors to minimize impacts on rural roads. An EIR must be prepared to include accurate Air Quality/HRA, Energy, GHG, and VMT modeling and provide an analysis of potential inconsistency with the 2018 RTP/SCS document and the AQMP.

C-7
(Continued)

Additionally, as required by the General Plan, the City maintains a list of ongoing commercial and industrial development. However, there is no analysis of the proposed project in relation to the growth management requirements of the General Plan. The list of ongoing commercial and industrial development is not provided for public review. An EIR must be prepared that includes an analysis of the project in relation to the City's growth management requirements as detailed in the General Plan in order to provide an adequate and accurate environmental analysis, including potential cumulatively significant impacts.

XIV. Population and Housing

The MND concludes that "although the proposed Project would create new jobs, which could create some population growth, it is *anticipated* that such new jobs would be for the existing labor force within Manteca and the *surrounding communities*," resulting in a less than significant impact. The MND does not provide any calculation of the employees generated by the proposed project during the construction phase or during project operations. The U.S. Energy Information Administration[9] provides the following applicable employment generation rate for refrigerated warehouses:

C-8

[8] SJCOG 2018 RTP/SCS https://www.sjcog.org/DocumentCenter/View/4156/Final-Compiled-RTPSCS-2018

[9] US EIA Commercial Buildings Energy Consumption Survey, Table B1: Summary table: total and means of floorspace, number of workers, and hours of operation, 2018 https://www.eia.gov/consumption/commercial/data/2018/bc/html/b1.php

No Refrigeration: 1 employee per 1,224 square feet

Applying this ratio results in the following calculation:
Non-Refrigerated: 360,000 sf/ 1,224 = 295
Total: 295 employees

SJCOG's Population, Household, and Employment Projections[10] notes that the City will add approximately 5,624 jobs between 2020 - 2045. Utilizing the U.S. EIA calculation of 295 employees, the project represents 5.2% of the City s employment growth from 2020 - 2045. A single project accounting for this amount of the projected employment growth over 29 years represents a significant amount of growth. An EIR must be prepared to include this analysis, and also provide a cumulative analysis discussion of projects approved since 2020 and projects in the pipeline" to determine if the project will exceed SJCOG s employment growth forecast for the City. For example, other recent industrial projects such as GBxManteca (246 employees) combined with the proposed project will cumulatively generate 541 employees, which is 9.6% of the City's employment growth forecast over 29 years and a large percentage to be attributed to only two development projects. Additionally, an EIR must also provide demographic and geographic information on the location of qualified workers to fill these positions in order to provide an accurate environmental analysis.

C-8
(Continued)

The MND states that "The Project site is currently vacant and does not contain housing. The proposed Project would not displace housing or people," to conclude the project will have less than significant impacts. This is contradictory to the Project Description that states "A rural residence is located in the northeastern quadrant." The site contains existing housing and the MND has not adequately or accurately analyzed the project's potentially significant environmental impacts. An EIR must be prepared to include information and analysis regarding the existing onsite housing at the project site in order to provide an adequate and accurate environmental analysis.

XVII. Transportation

Appendix B: Traffic Impact Analysis presents the project's trip generation forecast in Table 1: Airport Business Centre North Project (3157 N. Airport Way) Trip Generation Rates. However, it does not specify the ITE Land Use Code that was utilized to model the proposed project. The Project Description states that the building will operate as a distribution facility, which corresponds

C-9

[10] SJCOG's 2018 RTP/SCS Appendix R- Population, Household, and Employment Projections https://www.sjcog.org/DocumentCenter/View/3722/Final-2018-RTPSCS-Technical-Appendix-R---Population-Household-and-Employment-Projections?bidId=

to ITE Land Use Code 155 High-Cube Fulfillment Center Warehouse. An EIR must be prepared to state the ITE Land Use Code utilized to model the proposed project in the MND and the EIR must model the project as ITE Land Use Code 155 High-Cube Fulfillment Center Warehouse in accordance with building operations as described in the Project Description.

The MND is internally inconsistent in its analysis of the proposed project, rendering it an inadequate informational document. The Transportation analysis concludes that Citywide VMT Per Industrial Employee will decrease by 0.6% from 75.3 to 74.8 VMT per employee. Alternatively, the Population and Housing analysis relies upon the notion that operational jobs would be filled by local residents and "the *surrounding communities*" to conclude the project will have less than significant impacts. The Transportation analysis relies upon a workforce in close proximity to the project in order to artificially reduce impacts, yet the Population and Housing analysis relies on the entire available workforce/housing stock of the SJCOG area to provide and absorb its workforce and demonstrate there will be no significant impacts. The Transportation analysis must be revised to reflect longer trip distances that employees will realistically travel to work at the proposed project. The EIR must also include a construction worker employment trip analysis must also be included to adequately and accurately analyze all potentially significant environmental impacts.

The MND does not provide a threshold of significance related to VMT and utilizes the unsubstantiated finding that the project will reduce Citywide VMT from 75.3 miles per employee to 74.8 miles per employee as the reasoning for a less than significant project impact. The MND does not demonstrate how an alleged reduction of **0.5** vehicle miles traveled per employee meets the SB 743 requirements and will not result in a significant impact. This is misleading to the public and decision makers. An EIR must be prepared to include a legitimate VMT reduction and comply with CEQA's requirements for meaningful disclosure. This is vital as the Population and Housing analysis states that the project will be filled by "the existing labor force within Manteca and the *surrounding communities*," and the geographic area of the surrounding communities is undefined. Relying upon the labor force of the greater region and potentially the entire San Joaquin County area will serve to increase VMT per employee significantly.

C-9
(Continued)

The MND also states that "construction of the Airport Business Centre North Project will improve the jobs to housing balance in the City of Manteca" without providing any information on the current quantity of jobs or housing units in the City. There is also no information on the existing unemployment rates or the quantity of people that are qualified for work in the industrial sector. An EIR must be prepared to provide meaningful evidence to support this claim, particularly as the MND relies on this unsupported assumption to conclude that the project "will result in fuel consumption and greenhouse gas emissions reductions."

Appendix B sources the Governor's Office of Planning and Research (OPR) 2018 CEQA Guidelines Update and Technical Advisory[11] as contributing to the methodology for VMT analysis. The VMT analysis does not state if any truck/trailer trips were included for analysis. The MND does not provide a statutory source of exemption for medium/heavy trucks. The OPR s 2018 Technical Advisory which states that "here, the term automobile" refers to on-road passenger vehicles, specifically cars and light trucks." However, the purpose of the OPR Technical Advisory document is purely advisory, stating in its introduction:

"The purpose of this document is to provide advice and recommendations, which agencies and other entities may use at their discretion. This document does not alter lead agency discretion in preparing environmental documents subject to CEQA. This document should not be construed as legal advice."

The OPR document is not a legal interpretation, court decision, or amendment to the CEQA statute that clarifies the definition of automobile. The term "automobile" is not defined in the CEQA statute and application of the OPR interpretation is speculative and does not provide an analysis of the "worst-case scenario" for environmental impacts. Widespread public understanding and perception indicates that trucks, including medium/heavy-duty truck/trailer trips associated with the industrial nature of warehouse operations, are automobiles. An EIR must be prepared to include all truck/trailer activity for quantified VMT analysis. The operational nature of industrial/warehouse uses involves high rates of truck/trailer VMT due to traveling from large import hubs to regional distribution centers to smaller industrial parks and then to their final delivery destinations. Once employees arrive at work, they will conduct their jobs by driving delivery vans across the region as part of the daily operations as a distribution facility, which will drastically increase project-generated VMT. The project's truck/trailer and delivery van activity is unable to utilize public transit or active transportation and it is misleading to the public and decision makers to exclude this activity from VMT analysis. An EIR must be prepared to reflect a quantified VMT analysis that includes all truck/trailer and delivery van activity to adequately and accurately analyze the potentially significant project transportation impacts.

C-9

(Continued)

Further, the MND states that "The Baseline VMT and Cumulative Project VMT was developed using the City of Manteca travel demand model that was derived from the San Joaquin Council of Government's (SJCOG) Regional Travel Demand Model. The model was developed in 2020 and calibrated to adjusted pre COVID-19 traffic counts." However, the City of Manteca travel demand model software utilized is not included as a reference. An EIR must be prepared to state the name

[11] Governor's Office of Planning and Research Technical Advisory on Evaluating Transportation Impacts in CEQA https://opr.ca.gov/ceqa/docs/20190122-743_Technical_Advisory.pdf

of the City of Manteca TDM utilized and also provide a weblink to the software in order to comply with CEQA's requirements for meaningful disclosure and incorporation by reference because the City of Manteca TDM contributes directly to analysis of the problem at hand (CEQA § 15150 (f)).

C-9

(Continued)

XXI. Mandatory Findings of Significance

In analyzing the project's cumulative impacts, the MND states that "the City of Manteca maintains a list of ongoing commercial and industrial development, as provided in the "Ongoing Projects" list in Appendix F." However, there is no further information given and the list of ongoing development is not included. Notably, the list of appendices in the table of contents ends at Appendix D: MMRP for the Northwest Airport Way Master Plan and nothing is listed regarding an Appendix E or F. An EIR must be prepared that includes a cumulative analysis of the project in relation to the City's growth management requirements as detailed in the General Plan in order to provide an adequate and accurate cumulative analysis.

C-10

Additionally, this section does not discuss any of the significant and unavoidable impacts generated by the Northwest Airport Way Master Plan EIR/overall Centerpoint Intermodal Center. The Northwest Airport Way Master Plan EIR concludes that the project will result in significant and unavoidable impacts to Agricultural Resources, Air Quality (cumulatively considerable), and Traffic (cumulatively considerable). Excluding this pertinent information from the cumulative analysis does not comply with CEQA's requirements for meaningful disclosure and an EIR must be prepared.

Conclusion

For the foregoing reasons, GSEJA believes the MND is flawed and an EIR must be prepared for the proposed project and circulated for public review. Golden State Environmental Justice Alliance requests to be added to the public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project. Send all communications to Golden State Environmental Justice Alliance P.O. Box 79222 Corona, CA 92877.

C-11

Sincerely,



Gary Ho
Blum Collins & Ho, LLP

Attachments:
1. SWAPE Technical Analysis

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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November 1, 2022

Gary Ho
Blum Collins LLP
707 Wilshire Blvd, Ste. 4880
Los Angeles, CA 90017

Subject: Comments on the Airport Business Centre North Project (SCH No. 2022100047)

Dear Mr. Ho,

We have reviewed the October 2022 Initial Study and Mitigated Negative Declaration ("IS/MND") for the Airport Business Centre North Project ("Project") located in the City of Manteca ("City"). The Project proposes to construct a 360,00-square-foot ("SF") warehouse building with 335 parking spaces on the 21.3-acre site.

C-12

Our review concludes that the IS/MND fails to adequately evaluate the Project's air quality and health risk impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project are underestimated and inadequately addressed. An Environmental Impact Report ("EIR") should be prepared to adequately assess and mitigate the potential air quality and health risk impacts that the project may have on the environment.

Air Quality

Unsubstantiated Input Parameters Used to Estimate Project Emissions

The IS/MND's air quality analysis relies on emissions calculated with California Emissions Estimator Model ("CalEEMod") Version 2020.4.0 (p. 38).[1] CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence. Once all of the

C-13

[1] "CalEEMod Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* http://www.aqmd.gov/caleemod/download-model.

values are inputted into the model, the Project's construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters are utilized in calculating the Project's air pollutant emissions and make known which default values are changed as well as provide justification for the values selected.

When reviewing the Project's CalEEMod output files, provided in the Air Quality Technical Information ("AQ Information") as Appendix A to the IS/MND, we found that several model inputs were not consistent with information disclosed in the IS/MND. As a result, the Project's construction and operational emissions may be underestimated. An EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

C-13

(Continued)

Failure to Consider Potential Cold Storage Requirements

Review of the CalEEMod output files demonstrates that the "Manteca Airport Business Center North" model includes the entirety of the proposed warehouse land use space as "Unrefrigerated Warehouse-No Rail" (see excerpt below) (Appendix A, pp. 155).

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area
Unrefrigerated Warehouse-No Rail	350.00	1000sqft	8.03	350,000.00
Parking Lot	13.04	Acre	13.04	568,022.40
General Office Building	10.00	1000sqft	0.23	10,000.00

As demonstrated in the excerpt above, the model does not include any refrigerated warehouse space whatsoever. However, this is incorrect, as the IS/MND mentions that the warehouse will operate as a distribution facility (p. 1). As such, the proposed distribution facility may require cold storage. Therefore, as refrigerated warehouse space is the most energy-intensive, the Project should have included all of the proposed warehouse space as cold storage in order to conduct the most conservative analysis.

C-14

This inconsistency presents an issue, as refrigerated warehouses release more criteria air pollutant and GHG emissions than non-refrigerated warehouses. First, warehouses equipped with cold storage, such as refrigerators and freezers, are known to consume more energy when compared to warehouses without cold storage.[2] Second, warehouses equipped with cold storage typically require refrigerated trucks, which are known to idle for much longer when compared to unrefrigerated hauling trucks.[3] Third, according to a July 2014 *Warehouse Truck Trip Study Data Results and Usage* presentation prepared by the South Coast Air Quality Management District ("SCAQMD"), hauling trucks that require refrigeration result in greater truck trip rates when compared to non-refrigerated hauling trucks.[4] Furthermore, "CEQA requires the use of 'conservative analysis' to afford 'fullest possible protection of

[2] "Warehouses." Business Energy Advisor, *available at:* https://ouc.bizenergyadvisor.com/article/warehouses.
[3] "Estimation of Fuel Use by Idling Commercial Trucks." Transportation Research Record Journal of the Transportation Research Board, January 2006, p. 8, *available at:* https://www.researchgate.net/publication/245561735_Estimation_of_Fuel_Use_by_Idling_Commercial_Trucks.
[4] "Warehouse Truck Trip Study Data Results and Usage" Presentation. SCAQMD Mobile Source Committee, July 2014, *available at:* http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/finaltrucktripstudymsc072514.pdf?sfvrsn=2, p. 7, 9.

the environment.'"[5] As such, the model should have included the warehouse space as refrigerated in order account for the additional emissions that refrigeration requirements may generate.

C-14

(Continued)

By failing to account for potential cold storage requirements, the model may underestimate the Project's operational emissions and should not be relied upon to determine Project significance. An EIR should be prepared to account for the potential refrigerated warehouse needs.

Unsubstantiated Reductions to Architectural and Area Coating Emission Factors

Review of the CalEEMod output files demonstrates that the "Airport Business Centre North Project" model includes several reductions to the default architectural coating emission factors (see excerpt below) (Appendix A, pp. 156).

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	0.00
tblAreaCoating	Area_EF_Nonresidential_Interior	150	0
tblAreaCoating	Area_EF_Residential_Interior	150	0

As demonstrated in the excerpt above, the residential and nonresidential interior architectural and area coating emission factors are each reduced from the default value of 150- to 0-grams per liter ("g/L"). As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[6] According to the "User Entered Comments & Non-Default Data" table, the justifications provided for these changes are:

C-15

> "100 g/L for exterior coating limitations provided per rule 4601. No interior coatings for this project," and "This project does not contain interior coatings." (Appendix A, pp. 155).

Furthermore, the IS/MND includes Mitigation Measure ("MM") AIR-1b which states:

> "During the architectural coating phase for all Master Plan uses, paints with a volatile organic compound content less than 10 grams per liter shall be used" (p. 7).

However, the reductions to the architectural and area coating emission factors remains unsubstantiated as MM AIR-1b fails to require the Project use specific coatings. As such, the Project cannot simply assume that all coatings used during project construction and operation will have a VOC content of less than 10 g/L.

These unsubstantiated reductions present an issue, as CalEEMod uses the architectural and area coating emission factors to calculate the Project's reactive organic gas/volatile organic compound

[5] "Warehouse Truck Trip Study Data Results and Usage" Presentation. SCAQMD Inland Empire Logistics Council, June 2014, *available at*: http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/final-ielc_6-19-2014.pdf?sfvrsn=2, p. 3.

[6] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 1, 14.

("ROG"/"VOC") emissions.[7] Thus, by including underestimated reductions to the default architectural and area coating emission factors, the model may underestimate the Project's construction-related and operational ROG/VOC emissions and should not be relied upon to determine Project significance.

C-15 (Continued)

Failure to Substantiate Amount of Material Import or Export

According to the CalEEMod User's Guide:

> "Grading involves the cut and fill of land to ensure that the proper base and slope is created for the foundation."[8]

As demonstrated above, grading involves the use of material import (fill) and export (cut). However, the IS/MND fails to discuss construction or grading whatsoever. Furthermore, review of the CalEEMod output files demonstrates that the "Manteca Airport Business Center North" model fails to include any amount of material import or export. As such, the models may underestimate the amount of material import and export required during Project construction.

C-16

This potential underestimation presents an issue, as the inclusion of material import and export within the models is necessary to calculate emissions produced from material movement, which includes truck loading and unloading, as well as additional hauling truck trips.[9] As the IS/MND fails to substantiate any amount of material import or export, the models may underestimate the Project's construction-related emissions and should not be relied upon to determine Project significance. An EIR should be prepared to verify the amount of required material import and export and revise the models, if necessary.

Updated Analysis Indicates a Potentially Significant Air Quality Impact

In an effort to more accurately estimate the Project's construction-related emissions, we prepared an updated CalEEMod model, using the Project-specific information provided by the IS/MND. In our updated model, we omitted the unsubstantiated changes to the operational vehicle fleet mix and excluded the incorrect mobile- and water-related operational mitigation measures.[10]

C-17

Our updated analysis estimates that the Project's construction-related VOC emissions exceed the applicable San Joaquin Valley Air Pollution Control District ("SJVAPCD") threshold of 100 pounds per day ("lbs/day") (see table below).[11]

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[7] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 35, 40.
[8] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 32.
[9] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 34.
[10] See Attachment A for updated air modeling.
[11] "San Joaquin Valley Unified Air Pollution Control District." SJVAPCD, June 2012, *available at:* https://www.valleyair.org/transportation/CEQA%20Rules/FYI-329.pdf, p. 1.

Daily Construction Criteria Air Pollutant Emissions	
Model	**VOC** (lbs/day)
SWAPE	262.5
SJVAPCD Threshold	**100**
Exceeds?	***Yes***

C-17

(Continued)

As demonstrated above, construction-related VOC emissions, as estimated by SWAPE, exceed the applicable SJVAPCD significance threshold. Thus, our model demonstrates that the Project would result in a potentially significant air quality impact that was not previously identified or addressed by the IS/MND. As a result, an EIR should be prepared to adequately assess and mitigate the potential air quality impacts that the Project may have on the environment.

Diesel Particulate Matter Emissions Inadequately Evaluated

The IS/MND concludes that the Project would have a less-than-significant health risk impact without conducting a quantified construction or operational health risk analysis ("HRA"). Instead, the IS/MND conducts a screening analysis using the SJVAPCD's Prioritization Calculator to evaluate the impacts from exposure to diesel particulate matter ("DPM") emissions generated by heavy-duty diesel trucks during Project construction and operation. Specifically, the IS/MND states:

> "The results of the screening analysis show that the cancer and non-cancer risks associated with the proposed Project are below the SJVAPCD screening thresholds contained within their Prioritization Calculator. Specifically, the Prioritization Calculator estimates that the prioritization score associated with total cancer risk from proposed project operational DPM would be approximately 4.62, and from construction DPM 1.581, for a total of 6.20, well below the SJVAPCD threshold of 10 that would require development of air toxics Health Risk Assessment (HRA) that includes air dispersion modeling" (p. 40).

C-18

As demonstrated above, the IS/MND concludes that the Project would have a less-than-significant health risk impact based on the estimated prioritization score of 6.20. However, the IS/MND's evaluation of the Project's potential health risk impacts, as well as the subsequent less-than-significant impact conclusion, is incorrect.

Regardless of the SJVAPCD's Prioritization Calculator, the California Department of Justice ("DOJ") recommends that *all* warehouse products conduct a quantitative HRA. Specifically, the State of California Department of Justice recommends that warehouse projects prepare a quantitative HRA pursuant to the Office of Environmental Health Hazard Assessment ("OEHHA"), the organization responsible for providing guidance on conducting HRAs in California, as well as local air district guidelines.[12] OEHHA released its most recent *Risk Assessment Guidelines: Guidance Manual for*

[12] "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act." State of California Department of Justice, *available at*: https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/warehouse-best-practices.pdf, p. 6.

Preparation of Health Risk Assessments in February 2015. This guidance document describes the types of projects that warrant the preparation of an HRA. Specifically, OEHHA recommends that all short-term projects lasting at least 2 months assess cancer risks.[13] Furthermore, according to OEHHA:

> "Exposure from projects lasting more than 6 months should be evaluated for the duration of the project. In all cases, for assessing risk to residential receptors, the exposure should be assumed to start in the third trimester to allow for the use of the ASFs (OEHHA, 2009)."[14]

Thus, as the Project's anticipated construction duration exceeds the 2-month and 6-month Thus, as the Project's anticipated construction duration will likely exceed the 2-month and 6-month requirements set forth by OEHHA, as corroborated by SWAPE's CalEEMod model, construction of the Project meets the threshold warranting a quantified HRA under OEHHA guidance and should be evaluated for the entire construction period.[15] Furthermore, OEHHA recommends that an exposure duration of 30 years should be used to estimate the individual cancer risk at the maximally exposed individual resident ("MEIR").[16] While the Project documents fail to provide the expected lifetime of the proposed Project, we can reasonably assume that the Project would operate for at least 30 years, if not more. Therefore, operation of the Project also exceeds the 2-month and 6-month requirements set forth by OEHHA and should be evaluated for the entire 30-year residential exposure duration, as indicated by OEHHA guidance. These recommendations reflect the most recent state health risk policies, and as such, an EIR should be prepared to include an analysis of health risk impacts posed to nearby sensitive receptors from Project-generated DPM emissions.

C-18 (Continued)

Screening-Level Analysis Demonstrates Potentially Significant Health Risk Impact

In order to conduct our screening-level risk assessment we relied upon AERSCREEN, which is a screening level air quality dispersion model.[17] The model replaced SCREEN3, and AERSCREEN is included in the OEHHA and the California Air Pollution Control Officers Associated ("CAPCOA") guidance as the appropriate air dispersion model for Level 2 health risk screening assessments ("HRSAs").[18, 19] A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach is required prior to approval of the Project.

C-19

[13] "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 8-18.
[14] "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 8-18.
[15] See Attachment A for expected construction duration.
[16] "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 2-4.
[17] "AERSCREEN Released as the EPA Recommended Screening Model," U.S. EPA, April 2011, *available at:* http://www.epa.gov/ttn/scram/guidance/clarification/20110411_AERSCREEN_Release_Memo.pdf
[18] "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.
[19] "Health Risk Assessments for Proposed Land Use Projects." CAPCOA, July 2009, *available at:* http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf.

We prepared a preliminary HRA of the Project's construction and operational health risk impact to residential sensitive receptors using the annual PM_{10} exhaust estimates from the IS/MND's CalEEMod output files. Consistent with recommendations set forth by OEHHA, we assumed residential exposure begins during the third trimester stage of life. The IS/MND's construction CalEEMod emissions indicate that construction activities will generate approximately 278 pounds of DPM over the 664-day construction period.[20] The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentrations from point, area, and volume emission sources. To account for the variability in equipment usage and truck trips over Project construction, we calculated an average DPM emission rate by the following equation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{277.9\ lbs}{664\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.00219\ g/s}$$

Using this equation, we estimated a construction emission rate of 0.00219 grams per second ("g/s"). Subtracting the 664-day construction period from the total residential duration of 30 years, we assumed that after Project construction, the sensitive receptor would be exposed to the Project's operational DPM for an additional 28.18 years. SWAPE's operational CalEEMod emissions indicate that operational activities will generate approximately 80 pounds of DPM per year throughout operation. Applying the same equation used to estimate the construction DPM rate, we estimated the following emission rate for Project operation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{79.6\ lbs}{365\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.00114\ g/s}$$

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(Continued)

Using this equation, we estimated an operational emission rate of 0.00114 g/s. Construction and operation were simulated as a 21.3-acre rectangular area source in AERSCREEN, with approximate dimensions of 415- by 208-meters. A release height of three meters was selected to represent the height of stacks of operational equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution. The population of Manteca was obtained from U.S. 2020 Census data.[21]

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project Site. The U.S. EPA suggests that the annualized average concentration of an air pollutant be estimated by multiplying the single-hour concentration by 10% in screening procedures.[22] According to the IS/MND the closest sensitive receptors are the rural residential properties located adjacent to the Project site (p. 40). However, review of the AERSCREEN output files demonstrates that the MEIR is located approximately 200 meters from the Project site. Thus, the single-hour concentration estimated by AERSCREEN for Project construction is approximately 1.214 $\mu g/m^3$ DPM at approximately

[20] See Attachment B for calculations.
[21] "Manteca." U.S. Census Bureau, 2020, *available at:* https://datacommons.org/place/geoId/0645484.
[22] "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources Revised." U.S. EPA, October 1992, *available at:* http://www.epa.gov/ttn/scram/guidance/guide/EPA-454R-92-019_OCR.pdf.

200 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.1214 µg/m^3 for Project construction at the MEIR. For Project operation, the single-hour concentration estimated by AERSCREEN is 0.6325 µg/m^3 DPM at approximately 200 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.06325 µg/m^3 for Project operation at the MEIR.

We calculated the excess cancer risk to the MEIR using applicable HRA methodologies prescribed by OEHHA, as recommended by SJVAPCD.[23] Specifically, guidance from OEHHA and the California Air Resources Board ("CARB") recommends the use of a standard point estimate approach, including high-point estimate (i.e. 95th percentile) breathing rates and age sensitivity factors ("ASF") in order to account for the increased sensitivity to carcinogens during early-in-life exposure and accurately assess risk for susceptible subpopulations such as children. The residential exposure parameters, such as the daily breathing rates ("BR/BW"), exposure duration ("ED"), age sensitivity factors ("ASF"), fraction of time at home ("FAH"), and exposure frequency ("EF") utilized for the various age groups in our screening-level HRA are as follows:

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(Continued)

Exposure Assumptions for Residential Individual Cancer Risk

Age Group	Breathing Rate (L/kg-day)[24]	Age Sensitivity Factor[25]	Exposure Duration (years)	Fraction of Time at Home[26]	Exposure Frequency (days/year)[27]	Exposure Time (hours/day)
3rd Trimester	361	10	0.25	0.85	350	24
Infant (0 - 2)	1090	10	2	0.85	350	24
Child (2 - 16)	572	3	14	0.72	350	24
Adult (16 - 30)	261	1	14	0.73	350	24

[23] "Update to District's Risk Management Policy to Address OEHHA's Revised Risk Assessment Guidance Document." SJVAPCD, May 2015, *available at:* https://www.valleyair.org/busind/pto/staff-report-5-28-15.pdf.
[24] "Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics 'Hot Spots' Information and Assessment Act." SCAQMD, October 2020, available at: http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab-2588-supplemental-guidelines.pdf?sfvrsn=19, p. 19; see also "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.
[25] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 8-5 Table 8.3.
[26] "Risk Assessment Procedures." SCAQMD, August 2017, available at: http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1401/riskassessmentprocedures_2017_080717.pdf, p. 7.
[27] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 5-24.

For the inhalation pathway, the procedure requires the incorporation of several discrete variates to effectively quantify do se for each age group. Once determined, contaminant dose is multiplied by the cancer potency factor ("CPF") in units of inverse dose expressed in milligrams per kilogram per day ($mg/kg/day^{-1}$) to derive the cancer risk estimate. Therefore, to assess exposures, we utilized the following dose algorithm:

$$Dose_{AIR,per\ age\ group} = C_{air} \times EF \times \left[\frac{BR}{BW}\right] \times A \times CF$$

where:

$Dose_{AIR}$ = dose by inhalation (mg/kg/day), per age group
C_{air} = concentration of contaminant in air (µg/m3)
EF = exposure frequency (number of days/365 days)
BR/BW = daily breathing rate normalized to body weight (L/kg/day)
A = inhalation absorption factor (default = 1)
CF = conversion factor (1x10-6, µg to mg, L to m3)

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To calculate the overall cancer risk, we used the following equation for each appropriate age group:

$$Cancer\ Risk_{AIR} = Dose_{AIR} \times CPF \times ASF \times FAH \times \frac{ED}{AT}$$

where:

$Dose_{AIR}$ = dose by inhalation (mg/kg/day), per age group
CPF = cancer potency factor, chemical-specific $(mg/kg/day)^{-1}$
ASF = age sensitivity factor, per age group
FAH = fraction of time at home, per age group (for residential receptors only)
ED = exposure duration (years)
AT = averaging time period over which exposure duration is averaged (always 70 years)

Consistent with the 664-day construction schedule, the annualized average concentration for construction was used for the entire third trimester of pregnancy (0.25 years), and the first 1.57 years of the infantile stage of life (0 – 2 years). The annualized average concentration for operation was used for the remainder of the 30-year exposure period, which makes up the latter 0.43 years of the infantile stage of life, as well as the entire child (2 – 16) and adult (16 – 30 years) stages of life. The results of our calculations are shown in the table below.

The Maximally Exposed Individual at an Existing Residential Receptor				
Age Group	**Emissions Source**	**Duration** (years)	**Concentration** (ug/m3)	**Cancer Risk**
3rd Trimester	Construction	0.25	0.1214	1.40E-06
	Construction	*1.57*	*0.1214*	*2.66E-05*
	Operation	*0.43*	*0.0633*	*3.80E-06*
Infant (0 - 2)	Total	2		3.04E-05
Child (2 - 16)	Operation	14	0.0633	1.65E-05
Adult (16 - 30)	Operation	14	0.0633	2.54E-06
Lifetime		**30**		**5.08E-05**

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(Continued)

As demonstrated in the table above, the excess cancer risks for the 3rd trimester of pregnancy, infants, children, and adults at the MEIR located approximately 200 meters away, over the course of Project construction and operation, are approximately 1.4, 30.4, 16.5, and 2.54 in one million, respectively. The excess cancer risk over the course of a residential lifetime (30 years) is approximately 50.8 in one million. The infant and lifetime cancer risks exceed the SJVAPCD threshold of 20 in one million, thus resulting in a potentially significant impact not previously addressed or identified by the IS/MND.

Our analysis represents a screening-level HRA, which is known to be conservative and tends to err on the side of health protection. The purpose of the screening-level HRA is to demonstrate the potential link between Project-generated emissions and adverse health risk impacts. According to the U.S. EPA:

> "EPA's Exposure Assessment Guidelines recommend completing exposure assessments iteratively using a tiered approach to 'strike a balance between the costs of adding detail and refinement to an assessment and the benefits associated with that additional refinement' (U.S. EPA, 1992).
>
> In other words, an assessment using basic tools (e.g., simple exposure calculations, default values, rules of thumb, conservative assumptions) can be conducted as the first phase (or tier) of the overall assessment (i.e., a screening-level assessment).
>
> The exposure assessor or risk manager can then determine whether the results of the screening-level assessment warrant further evaluation through refinements of the input data and exposure assumptions or by using more advanced models."

As demonstrated above, screening-level analyses warrant further evaluation in a refined modeling approach. Thus, as our screening-level HRA demonstrates that construction and operation of the Project

could result in a potentially significant health risk impact, an EIR analysis should be prepared to include a refined health risk analysis which adequately and accurately evaluates health risk impacts associated with both Project construction and operation.

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Mitigation

Feasible Mitigation Measures Available to Reduce Emissions

Our analysis demonstrates that the Project would result in potentially significant air quality and health risk impacts that should be mitigated further. As such, in an effort to reduce the Project's emissions, we identified several mitigation measures that are applicable to the proposed Project. Therefore, to reduce the Project's emissions, we recommend consideration of SCAG's 2020 *RTP/SCS* PEIR's Air Quality Project Level Mitigation Measures ("PMM-AQ-1") as described below: [28]

SCAG RTP/SCS 2020-2045
Air Quality Project Level Mitigation Measures – PMM-AQ-1: In accordance with provisions of sections 15091(a)(2) and 15126.4(a)(1)(B) of the *State CEQA Guidelines*, a Lead Agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to violating air quality standards. Such measures may include the following or other comparable measures identified by the Lead Agency:
a) Minimize land disturbance.
b) Suspend grading and earth moving when wind gusts exceed 25 miles per hour unless the soil is wet enough to prevent dust plumes.
c) Cover trucks when hauling dirt.
d) Stabilize the surface of dirt piles if not removed immediately.
e) Limit vehicular paths on unpaved surfaces and stabilize any temporary roads.
f) Minimize unnecessary vehicular and machinery activities.
g) Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.
h) Revegetate disturbed land, including vehicular paths created during construction to avoid future off-road vehicular activities.
j) Require contractors to assemble a comprehensive inventory list (i.e., make, model, engine year, horsepower, emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater) that could be used an aggregate of 40 or more hours for the construction project. Prepare a plan for approval by the applicable air district demonstrating achievement of the applicable percent reduction for a CARB-approved fleet.
k) Ensure that all construction equipment is properly tuned and maintained.

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[28] "4.0 Mitigation Measures." Connect SoCal Program Environmental Impact Report Addendum #1, September 2020, available at: https://scag.ca.gov/sites/main/files/file-attachments/fpeir_connectsocal_addendum_4_mitigationmeasures.pdf?1606004420, p. 4.0-2 – 4.0-10; 4.0-19 – 4.0-23; See also: "Certified Final Connect SoCal Program Environmental Impact Report." Southern California Association of Governments (SCAG), May 2020, *available at:* https://scag.ca.gov/peir.

l) Minimize idling time to 5 minutes—saves fuel and reduces emissions.
m) Provide an operational water truck on-site at all times. Use watering trucks to minimize dust; watering should be sufficient to confine dust plumes to the project work areas. Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.
n) Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators.
o) Develop a traffic plan to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites.
p) As appropriate require that portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, obtain CARB Portable Equipment Registration with the state or a local district permit. Arrange appropriate consultations with the CARB or the District to determine registration and permitting requirements prior to equipment operation at the site.
q) Require projects within 500 feet of residences, hospitals, or schools to use Tier 4 equipment for all engines above 50 horsepower (hp) unless the individual project can demonstrate that Tier 4 engines would not be required to mitigate emissions below significance thresholds.
r) Projects located within the South Coast Air Basin should consider applying for South Coast AQMD "SOON" funds which provides funds to applicable fleets for the purchase of commercially available low-emission heavy-duty engines to achieve near-term reduction of NOx emissions from in-use off-road diesel vehicles.
s) Projects located within AB 617 communities should review the applicable Community Emissions Reduction Plan (CERP) for additional mitigation that can be applied to individual projects.
t) Where applicable, projects should provide information about air quality related programs to schools, including the Environmental Justice Community Partnerships (EJCP), Clean Air Ranger Education (CARE), and Why Air Quality Matters programs.
u) Projects should work with local cities and counties to install adequate signage that prohibits truck idling in certain locations (e.g., near schools and sensitive receptors).

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Furthermore, additionally mitigation measures can be found in the Department of Justice Warehouse Project Best Practices document.[29] Therefore, to further reduce the Project's emissions, consideration of the following measures should be made:

- Requiring off-road construction equipment to be zero-emission, where available, and all diesel-fueled off-road construction equipment, to be equipped with CARB Tier IV-compliant engines or better, and including this requirement in applicable bid documents, purchase orders, and contracts, with successful contractors demonstrating the ability to supply the compliant construction equipment for use prior to any ground-disturbing and construction activities.
- Prohibiting off-road diesel-powered equipment from being in the "on" position for more than 10 hours per day.
- Requiring on-road heavy-duty haul trucks to be model year 2010 or newer if diesel-fueled.

[29] "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act." State of California Department of Justice, *available at:* https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/warehouse-best-practices.pdf, p. 6 – 9.

- Providing electrical hook ups to the power grid, rather than use of diesel-fueled generators, for electric construction tools, such as saws, drills and compressors, and using electric tools whenever feasible.
- Limiting the amount of daily grading disturbance area.
- Prohibiting grading on days with an Air Quality Index forecast of greater than 100 for particulates or ozone for the project area.
- Forbidding idling of heavy equipment for more than two minutes.
- Keeping onsite and furnishing to the lead agency or other regulators upon request, all equipment maintenance records and data sheets, including design specifications and emission control tier classifications.
- Conducting an on-site inspection to verify compliance with construction mitigation and to identify other opportunities to further reduce construction impacts.
- Using paints, architectural coatings, and industrial maintenance coatings that have volatile organic compound levels of less than 10 g/L.
- Providing information on transit and ridesharing programs and services to construction employees.
- Providing meal options onsite or shuttles between the facility and nearby meal destinations for construction employees.
- Requiring that all facility-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 as currently defined in California Code of Regulations Title 13, Division 3, Chapter 1, Article 4.5, Section 2025. Facility operators shall maintain records on-site demonstrating compliance with this requirement and shall make records available for inspection by the local jurisdiction, air district, and state upon request.
- 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.
- Forbidding trucks from idling for more than two minutes and requiring operators to turn off engines when not in use.
- Posting both interior- and exterior-facing signs, including signs directed at all dock and delivery areas, identifying idling restrictions and contact information to report violations to CARB, the air district, and the building manager.
- 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.
- Installing and maintaining, at the manufacturer's recommended maintenance intervals, an air monitoring station proximate to sensitive receptors and the facility for the life of the project, and making the resulting data publicly available in real time. While air monitoring does not

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mitigate the air quality or greenhouse gas impacts of a facility, it nonetheless benefits the affected community by providing information that can be used to improve air quality or avoid exposure to unhealthy air.

- 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.
- Requiring all stand-by emergency generators to be powered by a non-diesel fuel.
- Requiring facility operators to train managers and employees on efficient scheduling and load management to eliminate unnecessary queuing and idling of trucks.
- Requiring operators to establish and promote a rideshare program that discourages single-occupancy vehicle trips and provides financial incentives for alternate modes of transportation, including carpooling, public transit, and biking.
- Meeting CalGreen Tier 2 green building standards, including all provisions related to designated parking for clean air vehicles, electric vehicle charging, and bicycle parking.
- Achieving certification of compliance with LEED green building standards.
- Providing meal options onsite or shuttles between the facility and nearby meal destinations.
- Posting signs at every truck exit driveway providing directional information to the truck route.
- Improving and maintaining vegetation and tree canopy for residents in and around the project area.
- Requiring that every tenant train its staff in charge of keeping vehicle records in diesel technologies and compliance with CARB regulations, by attending CARB-approved courses. Also require facility operators to maintain records on-site demonstrating compliance and make records available for inspection by the local jurisdiction, air district, and state upon request.
- Requiring tenants to enroll in the United States Environmental Protection Agency's SmartWay program, and requiring tenants to use carriers that are SmartWay carriers.
- Providing tenants with information on incentive programs, such as the Carl Moyer Program and Voucher Incentive Program, to upgrade their fleets.

These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduce emissions released during Project construction and operation.

Furthermore, as it is policy of the State that eligible renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers by December 31, 2045, we emphasize the applicability of incorporating solar power system into the Project design. Until the feasibility of incorporating on-site renewable energy production is considered, the Project should not be approved.

C-20

(Continued)

An EIR should be prepared to include all feasible mitigation measures, as well as include updated air quality analyses to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project's significant emissions are reduced to the maximum extent possible.

C-20

(Continued)

Disclaimer

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

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Sincerely,

Matt Hagemann, P.G., C.Hg.

Paul E. Rosenfeld, Ph.D.

Attachment A: Updated CalEEMod Output Files
Attachment B: Health Risk Calculations
Attachment C: AERSCREEN Output Files
Attachment D: Matt Hagemann CV
Attachment E: Paul Rosenfeld CV

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 Attachment A

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Manteca Airport Business Center North

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	10.00	1000sqft	0.23	10,000.00	0
Refrigerated Warehouse-No Rail	350.00	1000sqft	8.03	350,000.00	0
Parking Lot	13.04	Acre	13.04	568,022.40	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2024
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with IS/MND's model.

Land Use - See SWAPE's comments on "Failure to Consider Potential Cold Storage Requirements"

Construction Phase - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Grading - Consistent with IS/MND's model.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Architectural Coating - Consistent with IS/MND's model.

Vehicle Trips - Consistent with IS/MND's model.

Construction Off-road Equipment Mitigation - Consistent with IS/MND's model.

Fleet Mix - Consistent with IS/MND's model.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	5
tblFleetMix	HHD	0.02	0.20
tblFleetMix	LDA	0.54	0.44
tblFleetMix	LDT1	0.05	0.04
tblFleetMix	LDT2	0.17	0.14
tblFleetMix	LHD1	0.03	0.02
tblFleetMix	LHD2	6.2410e-003	5.1060e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.15	0.12
tblFleetMix	MH	3.5220e-003	2.8810e-003
tblFleetMix	MHD	0.01	8.7350e-003
tblFleetMix	OBUS	4.7100e-004	0.00
tblFleetMix	SBUS	1.1190e-003	0.00
tblFleetMix	UBUS	3.2500e-004	0.00
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	ST_TR	2.12	3.88
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	SU_TR	2.12	3.88
tblVehicleTrips	WD_TR	9.74	0.00
tblVehicleTrips	WD_TR	2.12	3.88

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0891	0.9092	0.6796	1.3900e-003	0.2331	0.0410	0.2741	0.0989	0.0378	0.1367	0.0000	122.0474	122.0474	0.0371	1.0000e-004	123.0036
2023	0.3748	2.9049	3.5265	0.0108	0.5995	0.1019	0.7013	0.1620	0.0958	0.2578	0.0000	988.0697	988.0697	0.0888	0.0641	1,009.3918
2024	2.8129	1.3587	1.7613	5.2800e-003	0.2536	0.0456	0.2992	0.0688	0.0429	0.1117	0.0000	481.3163	481.3163	0.0445	0.0302	491.4125
Maximum	**2.8129**	**2.9049**	**3.5265**	**0.0108**	**0.5995**	**0.1019**	**0.7013**	**0.1620**	**0.0958**	**0.2578**	**0.0000**	**988.0697**	**988.0697**	**0.0888**	**0.0641**	**1,009.3918**

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	0.0891	0.9092	0.6796	1.3900e-003	0.2328	0.0410	0.2738	0.0989	0.0378	0.1367	0.0000	122.0472	122.0472	0.0371	1.0000e-004	123.0035
2023	0.3748	2.9049	3.5265	0.0108	0.5613	0.1019	0.6632	0.1527	0.0958	0.2484	0.0000	988.0693	988.0693	0.0888	0.0641	1,009.3915
2024	2.8129	1.3587	1.7613	5.2800e-003	0.2347	0.0456	0.2803	0.0642	0.0429	0.1070	0.0000	481.3161	481.3161	0.0445	0.0302	491.4123
Maximum	**2.8129**	**2.9049**	**3.5265**	**0.0108**	**0.5613**	**0.1019**	**0.6632**	**0.1527**	**0.0958**	**0.2484**	**0.0000**	**988.0693**	**988.0693**	**0.0888**	**0.0641**	**1,009.3915**

Manteca Airport Business Center North - San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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	5.28	0.00	4.50	4.27	0.00	2.78	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	10-15-2022	1-14-2023	1.1988	1.1988
2	1-15-2023	4-14-2023	0.8013	0.8013
3	4-15-2023	7-14-2023	0.7965	0.7965
4	7-15-2023	10-14-2023	0.8077	0.8077
5	10-15-2023	1-14-2024	0.8155	0.8155
6	1-15-2024	4-14-2024	0.7702	0.7702
7	4-15-2024	7-14-2024	0.8186	0.8186
8	7-15-2024	9-30-2024	2.4504	2.4504
		Highest	2.4504	2.4504

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.7052	3.0000e-005	3.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.6700e-003	6.6700e-003	2.0000e-005	0.0000	7.1000e-003
Energy	3.0100e-003	0.0274	0.0230	1.6000e-004		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	663.0279	663.0279	0.1030	0.0130	669.4664
Mobile	0.5926	3.5782	5.9378	0.0230	1.5132	0.0313	1.5445	0.4064	0.0297	0.4361	0.0000	2,168.8552	2,168.8552	0.0639	0.2256	2,237.6849
Waste						0.0000	0.0000		0.0000	0.0000	68.6718	0.0000	68.6718	4.0584	0.0000	170.1316
Water						0.0000	0.0000		0.0000	0.0000	26.2416	41.7636	68.0052	2.7020	0.0645	154.7648
Total	**2.3008**	**3.6056**	**5.9642**	**0.0232**	**1.5132**	**0.0334**	**1.5466**	**0.4064**	**0.0318**	**0.4382**	**94.9134**	**2,873.6534**	**2,968.5668**	**6.9274**	**0.3030**	**3,232.0549**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.7052	3.0000e-005	3.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.6700e-003	6.6700e-003	2.0000e-005	0.0000	7.1000e-003
Energy	3.0100e-003	0.0274	0.0230	1.6000e-004		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	663.0279	663.0279	0.1030	0.0130	669.4684
Mobile	0.5926	3.5782	5.9378	0.0230	1.5132	0.0313	1.5445	0.4064	0.0297	0.4361	0.0000	2,168.8552	2,168.8552	0.0639	0.2256	2,237.6849
Waste						0.0000	0.0000		0.0000	0.0000	68.6718	0.0000	68.6718	4.0584	0.0000	170.1316
Water						0.0000	0.0000		0.0000	0.0000	26.2416	41.7636	68.0052	2.7020	0.0645	154.7648
Total	2.3008	3.6056	5.9642	0.0232	1.5132	0.0334	1.5466	0.4064	0.0318	0.4382	94.9134	2,873.6534	2,968.5668	6.9274	0.3030	3,232.0549

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/15/2022	11/11/2022	5	20	
2	Site Preparation	Site Preparation	11/12/2022	11/25/2022	5	10	
3	Grading	Grading	11/26/2022	1/13/2023	5	35	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Building Construction	Building Construction	1/14/2023	6/14/2024	5	370	
5	Paving	Paving	6/15/2024	7/12/2024	5	20	
6	Architectural Coating	Architectural Coating	7/13/2024	8/9/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 105

Acres of Paving: 13.04

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 540,000; Non-Residential Outdoor: 180,000; Striped Parking Area: 34,081 (Architectural Coating – sqft)

OffRoad Equipment

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	389.00	152.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	78.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Reduce Vehicle Speed on Unpaved Roads

Clean Paved 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					
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**		**0.0124**	**0.0124**		**0.0116**	**0.0116**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	4.7000e-004	3.3000e-004	3.7300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9702	0.9702	3.0000e-005	3.0000e-005	0.9797
Total	**4.7000e-004**	**3.3000e-004**	**3.7300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9702**	**0.9702**	**3.0000e-005**	**3.0000e-005**	**0.9797**

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	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**		**0.0124**	**0.0124**		**0.0116**	**0.0116**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	4.7000e-004	3.3000e-004	3.7300e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.9702	0.9702	3.0000e-005	3.0000e-005	0.9797
Total	**4.7000e-004**	**3.3000e-004**	**3.7300e-003**	**1.0000e-005**	**1.1000e-003**	**1.0000e-005**	**1.1100e-003**	**2.9000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**0.9702**	**0.9702**	**3.0000e-005**	**3.0000e-005**	**0.9797**

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					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0983**	**8.0600e-003**	**0.1064**	**0.0505**	**7.4200e-003**	**0.0579**	**0.0000**	**16.7197**	**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.8000e-004	2.0000e-004	2.2400e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5821	0.5821	2.0000e-005	2.0000e-005	0.5878
Total	**2.8000e-004**	**2.0000e-004**	**2.2400e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5821**	**0.5821**	**2.0000e-005**	**2.0000e-005**	**0.5878**

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					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0983**	**8.0600e-003**	**0.1064**	**0.0505**	**7.4200e-003**	**0.0579**	**0.0000**	**16.7197**	**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.8000e-004	2.0000e-004	2.2400e-003	1.0000e-005	6.6000e-004	0.0000	6.6000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5821	0.5821	2.0000e-005	2.0000e-005	0.5878
Total	**2.8000e-004**	**2.0000e-004**	**2.2400e-003**	**1.0000e-005**	**6.6000e-004**	**0.0000**	**6.6000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.5821**	**0.5821**	**2.0000e-005**	**2.0000e-005**	**0.5878**

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					0.1310	0.0000	0.1310	0.0474	0.0000	0.0474	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0453	0.4855	0.3630	7.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	68.1683	68.1683	0.0221	0.0000	68.7194
Total	**0.0453**	**0.4855**	**0.3630**	**7.8000e-004**	**0.1310**	**0.0204**	**0.1514**	**0.0474**	**0.0188**	**0.0662**	**0.0000**	**68.1683**	**68.1683**	**0.0221**	**0.0000**	**68.7194**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	7.9000e-004	5.5000e-004	6.2200e-003	2.0000e-005	1.9900e-003	1.0000e-005	2.0000e-003	5.3000e-004	1.0000e-005	5.4000e-004	0.0000	1.6169	1.6169	5.0000e-005	5.0000e-005	1.6329
Total	**7.9000e-004**	**5.5000e-004**	**6.2200e-003**	**2.0000e-005**	**1.9900e-003**	**1.0000e-005**	**2.0000e-003**	**5.3000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.6169**	**1.6169**	**5.0000e-005**	**5.0000e-005**	**1.6329**

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					0.1310	0.0000	0.1310	0.0474	0.0000	0.0474	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0453	0.4855	0.3630	7.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	68.1682	68.1682	0.0221	0.0000	68.7193
Total	**0.0453**	**0.4855**	**0.3630**	**7.8000e-004**	**0.1310**	**0.0204**	**0.1514**	**0.0474**	**0.0188**	**0.0662**	**0.0000**	**68.1682**	**68.1682**	**0.0221**	**0.0000**	**68.7193**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	7.9000e-004	5.5000e-004	6.2200e-003	2.0000e-005	1.8400e-003	1.0000e-005	1.8500e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.6169	1.6169	5.0000e-005	5.0000e-005	1.6329
Total	**7.9000e-004**	**5.5000e-004**	**6.2200e-003**	**2.0000e-005**	**1.8400e-003**	**1.0000e-005**	**1.8500e-003**	**4.9000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.6169**	**1.6169**	**5.0000e-005**	**5.0000e-005**	**1.6329**

3.4 Grading - 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					
Fugitive Dust					0.0858	0.0000	0.0858	0.0226	0.0000	0.0226	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0166	0.1726	0.1403	3.1000e-004		7.1200e-003	7.1200e-003		6.5500e-003	6.5500e-003	0.0000	27.2676	27.2676	8.8200e-003	0.0000	27.4881
Total	**0.0166**	**0.1726**	**0.1403**	**3.1000e-004**	**0.0858**	**7.1200e-003**	**0.0929**	**0.0226**	**6.5500e-003**	**0.0291**	**0.0000**	**27.2676**	**27.2676**	**8.8200e-003**	**0.0000**	**27.4881**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	1.9000e-004	2.2700e-003	1.0000e-005	8.0000e-004	0.0000	8.0000e-004	2.1000e-004	0.0000	2.2000e-004	0.0000	0.6259	0.6259	2.0000e-005	2.0000e-005	0.6317
Total	**2.9000e-004**	**1.9000e-004**	**2.2700e-003**	**1.0000e-005**	**8.0000e-004**	**0.0000**	**8.0000e-004**	**2.1000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**0.6259**	**0.6259**	**2.0000e-005**	**2.0000e-005**	**0.6317**

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					0.0858	0.0000	0.0858	0.0226	0.0000	0.0226	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0166	0.1726	0.1403	3.1000e-004		7.1200e-003	7.1200e-003		6.5500e-003	6.5500e-003	0.0000	27.2676	27.2676	8.8200e-003	0.0000	27.4880
Total	**0.0166**	**0.1726**	**0.1403**	**3.1000e-004**	**0.0858**	**7.1200e-003**	**0.0929**	**0.0226**	**6.5500e-003**	**0.0291**	**0.0000**	**27.2676**	**27.2676**	**8.8200e-003**	**0.0000**	**27.4880**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	1.9000e-004	2.2700e-003	1.0000e-005	7.3000e-004	0.0000	7.4000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6259	0.6259	2.0000e-005	2.0000e-005	0.6317
Total	**2.9000e-004**	**1.9000e-004**	**2.2700e-003**	**1.0000e-005**	**7.3000e-004**	**0.0000**	**7.4000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6259**	**0.6259**	**2.0000e-005**	**2.0000e-005**	**0.6317**

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	0.1966	1.7981	2.0305	3.3700e-003		0.0875	0.0875		0.0823	0.0823	0.0000	289.7559	289.7559	0.0689	0.0000	291.4791
Total	**0.1966**	**1.7981**	**2.0305**	**3.3700e-003**		**0.0875**	**0.0875**		**0.0823**	**0.0823**	**0.0000**	**289.7559**	**289.7559**	**0.0689**	**0.0000**	**291.4791**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0201	0.8406	0.2474	3.8100e-003	0.1256	5.3700e-003	0.1309	0.0363	5.1400e-003	0.0414	0.0000	366.0722	366.0722	1.8000e-003	0.0553	382.6095
Worker	0.1412	0.0934	1.1061	3.3200e-003	0.3873	1.9100e-003	0.3892	0.1030	1.7600e-003	0.1047	0.0000	304.3481	304.3481	9.2700e-003	8.7400e-003	307.1834
Total	**0.1613**	**0.9340**	**1.3535**	**7.1300e-003**	**0.5129**	**7.2800e-003**	**0.5202**	**0.1393**	**6.9000e-003**	**0.1462**	**0.0000**	**670.4202**	**670.4202**	**0.0111**	**0.0641**	**689.7929**

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	0.1966	1.7981	2.0305	3.3700e-003		0.0875	0.0875		0.0823	0.0823	0.0000	289.7556	289.7556	0.0689	0.0000	291.4788
Total	**0.1966**	**1.7981**	**2.0305**	**3.3700e-003**		**0.0875**	**0.0875**		**0.0823**	**0.0823**	**0.0000**	**289.7556**	**289.7556**	**0.0689**	**0.0000**	**291.4788**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0201	0.8406	0.2474	3.8100e-003	0.1176	5.3700e-003	0.1230	0.0343	5.1400e-003	0.0395	0.0000	366.0722	366.0722	1.8000e-003	0.0553	382.6095
Worker	0.1412	0.0934	1.1061	3.3200e-003	0.3572	1.9100e-003	0.3591	0.0956	1.7600e-003	0.0973	0.0000	304.3481	304.3481	9.2700e-003	8.7400e-003	307.1834
Total	**0.1613**	**0.9340**	**1.3535**	**7.1300e-003**	**0.4748**	**7.2800e-003**	**0.4820**	**0.1299**	**6.9000e-003**	**0.1368**	**0.0000**	**670.4202**	**670.4202**	**0.0111**	**0.0641**	**689.7929**

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	0.0883	0.8066	0.9700	1.6200e-003		0.0368	0.0368		0.0346	0.0346	0.0000	139.1095	139.1095	0.0329	0.0000	139.9319
Total	**0.0883**	**0.8066**	**0.9700**	**1.6200e-003**		**0.0368**	**0.0368**		**0.0346**	**0.0346**	**0.0000**	**139.1095**	**139.1095**	**0.0329**	**0.0000**	**139.9319**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	9.4000e-003	0.4037	0.1164	1.8000e-003	0.0603	2.6000e-003	0.0629	0.0174	2.4900e-003	0.0199	0.0000	172.9849	172.9849	8.3000e-004	0.0261	180.7900
Worker	0.0625	0.0394	0.4909	1.5400e-003	0.1859	8.6000e-004	0.1868	0.0494	7.9000e-004	0.0502	0.0000	141.0230	141.0230	3.9900e-003	3.8700e-003	142.2762
Total	**0.0719**	**0.4431**	**0.6073**	**3.3400e-003**	**0.2462**	**3.4600e-003**	**0.2497**	**0.0669**	**3.2800e-003**	**0.0701**	**0.0000**	**314.0079**	**314.0079**	**4.8200e-003**	**0.0300**	**323.0662**

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	0.0883	0.8066	0.9700	1.6200e-003		0.0368	0.0368		0.0346	0.0346	0.0000	139.1093	139.1093	0.0329	0.0000	139.9317
Total	**0.0883**	**0.8066**	**0.9700**	**1.6200e-003**		**0.0368**	**0.0368**		**0.0346**	**0.0346**	**0.0000**	**139.1093**	**139.1093**	**0.0329**	**0.0000**	**139.9317**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	9.4000e-003	0.4037	0.1164	1.8000e-003	0.0565	2.6000e-003	0.0591	0.0165	2.4900e-003	0.0190	0.0000	172.9849	172.9849	8.3000e-004	0.0261	180.7900
Worker	0.0625	0.0394	0.4909	1.5400e-003	0.1714	8.6000e-004	0.1723	0.0459	7.9000e-004	0.0467	0.0000	141.0230	141.0230	3.9800e-003	3.8700e-003	142.2762
Total	**0.0719**	**0.4431**	**0.6073**	**3.3400e-003**	**0.2279**	**3.4600e-003**	**0.2314**	**0.0624**	**3.2800e-003**	**0.0656**	**0.0000**	**314.0079**	**314.0079**	**4.8200e-003**	**0.0300**	**323.0662**

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	9.8900e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	0.0171					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0270**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1885**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	4.0000e-004	2.5000e-004	3.1500e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9063	0.9063	3.0000e-005	2.0000e-005	0.9144
Total	**4.0000e-004**	**2.5000e-004**	**3.1500e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9063**	**0.9063**	**3.0000e-005**	**2.0000e-005**	**0.9144**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	0.0171					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0270**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1884**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	4.0000e-004	2.5000e-004	3.1500e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.9063	0.9063	3.0000e-005	2.0000e-005	0.9144
Total	**4.0000e-004**	**2.5000e-004**	**3.1500e-003**	**1.0000e-005**	**1.1000e-003**	**1.0000e-005**	**1.1100e-003**	**2.9000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**0.9063**	**0.9063**	**3.0000e-005**	**2.0000e-005**	**0.9144**

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	2.6214					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569
Total	**2.6232**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5569**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0900e-003	1.3200e-003	0.0164	5.0000e-005	6.2100e-003	3.0000e-005	6.2400e-003	1.6500e-003	3.0000e-005	1.6800e-003	0.0000	4.7129	4.7129	1.3000e-004	1.3000e-004	4.7547
Total	**2.0900e-003**	**1.3200e-003**	**0.0164**	**5.0000e-005**	**6.2100e-003**	**3.0000e-005**	**6.2400e-003**	**1.6500e-003**	**3.0000e-005**	**1.6800e-003**	**0.0000**	**4.7129**	**4.7129**	**1.3000e-004**	**1.3000e-004**	**4.7547**

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	2.6214					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	**2.6232**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5568**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0900e-003	1.3200e-003	0.0164	5.0000e-005	5.7300e-003	3.0000e-005	5.7600e-003	1.5300e-003	3.0000e-005	1.5600e-003	0.0000	4.7129	4.7129	1.3000e-004	1.3000e-004	4.7547
Total	**2.0900e-003**	**1.3200e-003**	**0.0164**	**5.0000e-005**	**5.7300e-003**	**3.0000e-005**	**5.7600e-003**	**1.5300e-003**	**3.0000e-005**	**1.5600e-003**	**0.0000**	**4.7129**	**4.7129**	**1.3000e-004**	**1.3000e-004**	**4.7547**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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	0.5926	3.5782	5.9378	0.0230	1.5132	0.0313	1.5445	0.4064	0.0297	0.4361	0.0000	2,168.8552	2,168.8552	0.0639	0.2256	2,237.6849
Unmitigated	0.5926	3.5782	5.9378	0.0230	1.5132	0.0313	1.5445	0.4064	0.0297	0.4361	0.0000	2,168.8552	2,168.8552	0.0639	0.2256	2,237.6849

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	1,358.00	1,358.00	1358.00	3,964,696	3,964,696
Total	1,358.00	1,358.00	1,358.00	3,964,696	3,964,696

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
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated 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
General Office Building	0.536987	0.052416	0.169237	0.150872	0.026159	0.006241	0.012518	0.016886	0.000471	0.000325	0.023246	0.001119	0.003522
Parking Lot	0.536987	0.052416	0.169237	0.150872	0.026159	0.006241	0.012518	0.016886	0.000471	0.000325	0.023246	0.001119	0.003522

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Refrigerated Warehouse-No Rail	0.439290	0.042880	0.138447	0.123423	0.021400	0.005106	0.008735	0.198822	0.000000	0.000000	0.019017	0.000000	0.002881

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	633.2242	633.2242	0.1024	0.0124	639.4856
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	633.2242	633.2242	0.1024	0.0124	639.4856
NaturalGas Mitigated	3.0100e-003	0.0274	0.0230	1.6000e-004		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	29.8037	29.8037	5.7000e-004	5.5000e-004	29.9808
NaturalGas Unmitigated	3.0100e-003	0.0274	0.0230	1.6000e-004		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	29.8037	29.8037	5.7000e-004	5.5000e-004	29.9808

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
General Office Building	163000	8.8000e-004	7.9900e-003	6.7100e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	8.6983	8.6983	1.7000e-004	1.6000e-004	8.7500
Parking Lot	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
Refrigerated Warehouse-No Rail	395500	2.1300e-003	0.0194	0.0163	1.2000e-004		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	21.1054	21.1054	4.0000e-004	3.9000e-004	21.2308
Total		**3.0100e-003**	**0.0274**	**0.0230**	**1.7000e-004**		**2.0800e-003**	**2.0800e-003**		**2.0800e-003**	**2.0800e-003**	**0.0000**	**29.8037**	**29.8037**	**5.7000e-004**	**5.5000e-004**	**29.9808**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	163000	8.8000e-004	7.9900e-003	6.7100e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	8.6883	8.6883	1.7000e-004	1.6000e-004	8.7500
Parking Lot	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
Refrigerated Warehouse-No Rail	395500	2.1300e-003	0.0194	0.0163	1.2000e-004		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	21.1054	21.1054	4.0000e-004	3.9000e-004	21.2308
Total		**3.0100e-003**	**0.0274**	**0.0230**	**1.7000e-004**		**2.0800e-003**	**2.0800e-003**		**2.0800e-003**	**2.0800e-003**	**0.0000**	**29.8037**	**29.8037**	**5.7000e-004**	**5.5000e-004**	**29.9808**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	96600	8.9378	1.4500e-003	1.8000e-004	9.0262
Parking Lot	198808	18.3845	2.9800e-003	3.6000e-004	18.5763
Refrigerated Warehouse-No Rail	6.5485e+006	605.8819	0.0980	0.0119	611.8831
Total		**633.2242**	**0.1025**	**0.0124**	**639.4856**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	96600	8.9378	1.4500e-003	1.8000e-004	9.0262
Parking Lot	199809	18.3945	2.9800e-003	3.6000e-004	18.5763
Refrigerated Warehouse-No Rail	6.5485e+006	605.8919	0.0980	0.0119	611.8831
Total		**633.2242**	**0.1025**	**0.0124**	**639.4856**

6.0 Area Detail

6.1 Mitigation Measures Area

Manteca Airport Business Center North - San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.7052	3.0000e-005	3.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.6700e-003	6.6700e-003	2.0000e-005	0.0000	7.1000e-003
Unmitigated	1.7052	3.0000e-005	3.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.6700e-003	6.6700e-003	2.0000e-005	0.0000	7.1000e-003

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	0.2621					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4427					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.2000e-004	3.0000e-005	3.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.6700e-003	6.6700e-003	2.0000e-005	0.0000	7.1000e-003
Total	**1.7052**	**3.0000e-005**	**3.4200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**6.6700e-003**	**6.6700e-003**	**2.0000e-005**	**0.0000**	**7.1000e-003**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.2621					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4427					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.2000e-004	3.0000e-005	3.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.6700e-003	6.6700e-003	2.0000e-005	0.0000	7.1000e-003
Total	**1.7052**	**3.0000e-005**	**3.4200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**6.6700e-003**	**6.6700e-003**	**2.0000e-005**	**0.0000**	**7.1000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	68.0052	2.7020	0.0645	154.7648
Unmitigated	68.0052	2.7020	0.0645	154.7648

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	1.77734 / 1.08934	1.8065	0.0581	1.3900e-003	3.6741
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	80.9375 / 0	66.1988	2.6439	0.0631	151.0907
Total		**68.0052**	**2.7020**	**0.0645**	**154.7648**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	1.77734 / 1.09934	1.8065	0.0581	1.3900e-003	3.6741
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	80.9375 / 0	66.1988	2.6439	0.0631	151.0907
Total		**68.0052**	**2.7020**	**0.0645**	**154.7648**

8.0 Waste Detail

8.1 Mitigation Measures Waste

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	68.6718	4.0584	0.0000	170.1316
Unmitigated	68.6718	4.0584	0.0000	170.1316

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	9.3	1.8878	0.1116	0.0000	4.6770
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	329	66.7840	3.9468	0.0000	165.4546
Total		**68.6719**	**4.0584**	**0.0000**	**170.1316**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	9.3	1.8878	0.1116	0.0000	4.6770
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	329	66.7840	3.9468	0.0000	165.4546
Total		**68.6719**	**4.0584**	**0.0000**	**170.1316**

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Manteca Airport Business Center North

San Joaquin County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	10.00	1000sqft	0.23	10,000.00	0
Refrigerated Warehouse-No Rail	350.00	1000sqft	8.03	350,000.00	0
Parking Lot	13.04	Acre	13.04	568,022.40	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2024
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with IS/MND's model.

Land Use - See SWAPE's comments on "Failure to Consider Potential Cold Storage Requirements"

Construction Phase - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Grading - Consistent with IS/MND's model.

Manteca Airport Business Center North - San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Architectural Coating - Consistent with IS/MND's model.

Vehicle Trips - Consistent with IS/MND's model.

Construction Off-road Equipment Mitigation - Consistent with IS/MND's model.

Fleet Mix - Consistent with IS/MND's model.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	5
tblFleetMix	HHD	0.02	0.20
tblFleetMix	LDA	0.54	0.44
tblFleetMix	LDT1	0.05	0.04
tblFleetMix	LDT2	0.17	0.14
tblFleetMix	LHD1	0.03	0.02
tblFleetMix	LHD2	6.2410e-003	5.1060e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.15	0.12
tblFleetMix	MH	3.5220e-003	2.8810e-003
tblFleetMix	MHD	0.01	8.7350e-003
tblFleetMix	OBUS	4.7100e-004	0.00
tblFleetMix	SBUS	1.1190e-003	0.00
tblFleetMix	UBUS	3.2500e-004	0.00
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	ST_TR	2.12	3.88
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	SU_TR	2.12	3.88
tblVehicleTrips	WD_TR	9.74	0.00
tblVehicleTrips	WD_TR	2.12	3.88

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.6959	38.8834	29.6001	0.0636	19.8049	1.6357	21.4182	10.1417	1.5049	11.6259	0.0000	6,165.3533	6,165.3533	1.9487	4.0500e-003	6,215.2755
2023	3.3869	34.5505	28.5603	0.0861	9.3679	1.4253	10.7932	3.6973	1.3113	5.0086	0.0000	8,677.6636	8,677.6636	1.9482	0.5597	8,861.9720
2024	262.5521	20.4823	27.2102	0.0846	4.2256	0.6710	4.8967	1.1442	0.6316	1.7758	0.0000	8,526.9548	8,526.9548	0.7166	0.5460	8,706.8871
Maximum	**262.5521**	**38.8834**	**29.6001**	**0.0861**	**19.8049**	**1.6357**	**21.4182**	**10.1417**	**1.5049**	**11.6259**	**0.0000**	**8,677.6636**	**8,677.6636**	**1.9487**	**0.5597**	**8,861.9720**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.6959	38.8834	29.6001	0.0636	19.7933	1.6357	21.4066	10.1389	1.5049	11.6231	0.0000	6,165.3533	6,165.3533	1.9487	4.0500e-003	6,215.2755
2023	3.3869	34.5505	28.5603	0.0861	9.3550	1.4253	10.7803	3.6942	1.3113	5.0054	0.0000	8,677.6636	8,677.6636	1.9482	0.5597	8,861.9720
2024	262.5521	20.4823	27.2102	0.0846	3.9097	0.6710	4.5807	1.0667	0.6316	1.6982	0.0000	8,526.9548	8,526.9548	0.7166	0.5460	8,706.8871
Maximum	**262.5521**	**38.8834**	**29.6001**	**0.0861**	**19.7933**	**1.6357**	**21.4066**	**10.1389**	**1.5049**	**11.6231**	**0.0000**	**8,677.6636**	**8,677.6636**	**1.9487**	**0.5597**	**8,861.9720**

Manteca Airport Business Center North - San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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	1.02	0.00	0.92	0.56	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.3451	3.5000e-004	0.0380	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0816	0.0816	2.1000e-004		0.0870
Energy	0.0165	0.1500	0.1260	9.0000e-004		0.0114	0.0114		0.0114	0.0114		180.0161	180.0161	3.4500e-003	3.3000e-003	181.0859
Mobile	3.7480	18.7181	33.8235	0.1304	8.5660	0.1719	8.7379	2.2946	0.1634	2.4580		13,535.2312	13,535.2312	0.3687	1.3538	13,947.8873
Total	**13.1096**	**18.8685**	**33.9875**	**0.1313**	**8.5660**	**0.1834**	**8.7494**	**2.2946**	**0.1750**	**2.4696**		**13,715.3290**	**13,715.3290**	**0.3724**	**1.3571**	**14,129.0601**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.3451	3.5000e-004	0.0380	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0816	0.0816	2.1000e-004		0.0870
Energy	0.0165	0.1500	0.1260	9.0000e-004		0.0114	0.0114		0.0114	0.0114		180.0161	180.0161	3.4500e-003	3.3000e-003	181.0859
Mobile	3.7480	18.7181	33.8235	0.1304	8.5660	0.1719	8.7379	2.2946	0.1634	2.4580		13,535.2312	13,535.2312	0.3687	1.3538	13,947.8873
Total	**13.1096**	**18.8685**	**33.9875**	**0.1313**	**8.5660**	**0.1834**	**8.7494**	**2.2946**	**0.1750**	**2.4696**		**13,715.3290**	**13,715.3290**	**0.3724**	**1.3571**	**14,129.0601**

Manteca Airport Business Center North - San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/15/2022	11/11/2022	5	20	
2	Site Preparation	Site Preparation	11/12/2022	11/25/2022	5	10	
3	Grading	Grading	11/26/2022	1/13/2023	5	35	
4	Building Construction	Building Construction	1/14/2023	6/14/2024	5	370	
5	Paving	Paving	6/15/2024	7/12/2024	5	20	
6	Architectural Coating	Architectural Coating	7/13/2024	8/9/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 105

Acres of Paving: 13.04

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 540,000; Non-Residential Outdoor: 180,000; Striped Parking Area: 34,081 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	389.00	152.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	78.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**		**1.2427**	**1.2427**		**1.1553**	**1.1553**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0533	0.0300	0.4190	1.1400e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333		115.4571	115.4571	3.3400e-003	3.0300e-003	116.4447
Total	**0.0533**	**0.0300**	**0.4190**	**1.1400e-003**	**0.1232**	**6.3000e-004**	**0.1239**	**0.0327**	**5.8000e-004**	**0.0333**		**115.4571**	**115.4571**	**3.3400e-003**	**3.0300e-003**	**116.4447**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**		**1.2427**	**1.2427**		**1.1553**	**1.1553**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0533	0.0300	0.4190	1.1400e-003	0.1136	6.3000e-004	0.1142	0.0303	5.8000e-004	0.0309		115.4571	115.4571	3.3400e-003	3.0300e-003	116.4447
Total	**0.0533**	**0.0300**	**0.4190**	**1.1400e-003**	**0.1136**	**6.3000e-004**	**0.1142**	**0.0303**	**5.8000e-004**	**0.0309**		**115.4571**	**115.4571**	**3.3400e-003**	**3.0300e-003**	**116.4447**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.6570**	**1.6126**	**21.2696**	**10.1025**	**1.4836**	**11.5860**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0639	0.0360	0.5028	1.3700e-003	0.1479	7.5000e-004	0.1486	0.0392	6.9000e-004	0.0399		138.5485	138.5485	4.0000e-003	3.6400e-003	139.7337
Total	**0.0639**	**0.0360**	**0.5028**	**1.3700e-003**	**0.1479**	**7.5000e-004**	**0.1486**	**0.0392**	**6.9000e-004**	**0.0399**		**138.5485**	**138.5485**	**4.0000e-003**	**3.6400e-003**	**139.7337**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.6570**	**1.6126**	**21.2696**	**10.1025**	**1.4836**	**11.5860**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0639	0.0360	0.5028	1.3700e-003	0.1363	7.5000e-004	0.1371	0.0364	6.9000e-004	0.0371		138.5485	138.5485	4.0000e-003	3.6400e-003	139.7337
Total	**0.0639**	**0.0360**	**0.5028**	**1.3700e-003**	**0.1363**	**7.5000e-004**	**0.1371**	**0.0364**	**6.9000e-004**	**0.0371**		**138.5485**	**138.5485**	**4.0000e-003**	**3.6400e-003**	**139.7337**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**9.2036**	**1.6349**	**10.8385**	**3.6538**	**1.5041**	**5.1579**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0710	0.0400	0.5586	1.5200e-003	0.1643	8.3000e-004	0.1651	0.0436	7.7000e-004	0.0444		153.9427	153.9427	4.4500e-003	4.0500e-003	155.2596
Total	**0.0710**	**0.0400**	**0.5586**	**1.5200e-003**	**0.1643**	**8.3000e-004**	**0.1651**	**0.0436**	**7.7000e-004**	**0.0444**		**153.9427**	**153.9427**	**4.4500e-003**	**4.0500e-003**	**155.2596**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**9.2036**	**1.6349**	**10.8385**	**3.6538**	**1.5041**	**5.1579**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0710	0.0400	0.5586	1.5200e-003	0.1514	8.3000e-004	0.1523	0.0404	7.7000e-004	0.0412		153.9427	153.9427	4.4500e-003	4.0500e-003	155.2596
Total	**0.0710**	**0.0400**	**0.5586**	**1.5200e-003**	**0.1514**	**8.3000e-004**	**0.1523**	**0.0404**	**7.7000e-004**	**0.0412**		**153.9427**	**153.9427**	**4.4500e-003**	**4.0500e-003**	**155.2596**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.2036**	**1.4245**	**10.6281**	**3.6538**	**1.3105**	**4.9643**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0651	0.0349	0.5092	1.4700e-003	0.1643	7.9000e-004	0.1651	0.0436	7.2000e-004	0.0443		148.9370	148.9370	3.9700e-003	3.7100e-003	150.1429
Total	**0.0651**	**0.0349**	**0.5092**	**1.4700e-003**	**0.1643**	**7.9000e-004**	**0.1651**	**0.0436**	**7.2000e-004**	**0.0443**		**148.9370**	**148.9370**	**3.9700e-003**	**3.7100e-003**	**150.1429**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.2036**	**1.4245**	**10.6281**	**3.6538**	**1.3105**	**4.9643**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0651	0.0349	0.5092	1.4700e-003	0.1514	7.9000e-004	0.1522	0.0404	7.2000e-004	0.0412		148.9370	148.9370	3.9700e-003	3.7100e-003	150.1429
Total	**0.0651**	**0.0349**	**0.5092**	**1.4700e-003**	**0.1514**	**7.9000e-004**	**0.1522**	**0.0404**	**7.2000e-004**	**0.0412**		**148.9370**	**148.9370**	**3.9700e-003**	**3.7100e-003**	**150.1429**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1655	6.4387	1.9499	0.0305	1.0301	0.0429	1.0730	0.2966	0.0411	0.3377		3,225.6298	3,225.6298	0.0161	0.4874	3,371.2867
Worker	1.2666	0.6784	9.9029	0.0287	3.1955	0.0153	3.2108	0.8476	0.0141	0.8617		2,896.8238	2,896.8238	0.0771	0.0722	2,920.2793
Total	**1.4321**	**7.1171**	**11.8528**	**0.0592**	**4.2256**	**0.0582**	**4.2839**	**1.1442**	**0.0551**	**1.1993**		**6,122.4536**	**6,122.4536**	**0.0932**	**0.5597**	**6,291.5660**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1655	6.4387	1.9499	0.0305	0.9641	0.0429	1.0070	0.2804	0.0411	0.3215		3,225.6298	3,225.6298	0.0161	0.4874	3,371.2867
Worker	1.2666	0.6784	9.9029	0.0287	2.9456	0.0153	2.9609	0.7863	0.0141	0.8003		2,896.8238	2,896.8238	0.0771	0.0722	2,920.2793
Total	**1.4321**	**7.1171**	**11.8528**	**0.0592**	**3.9097**	**0.0582**	**3.9679**	**1.0667**	**0.0551**	**1.1218**		**6,122.4536**	**6,122.4536**	**0.0932**	**0.5597**	**6,291.5660**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1617	6.4426	1.9115	0.0300	1.0301	0.0433	1.0734	0.2966	0.0414	0.3380		3,175.5033	3,175.5033	0.0154	0.4793	3,318.7268
Worker	1.1664	0.5959	9.1318	0.0277	3.1955	0.0144	3.2099	0.8476	0.0133	0.8609		2,795.7626	2,795.7626	0.0690	0.0667	2,817.3526
Total	**1.3281**	**7.0385**	**11.0434**	**0.0577**	**4.2256**	**0.0577**	**4.2834**	**1.1442**	**0.0547**	**1.1989**		**5,971.2559**	**5,971.2559**	**0.0843**	**0.5460**	**6,136.0794**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1617	6.4426	1.9115	0.0300	0.9641	0.0433	1.0074	0.2804	0.0414	0.3218		3,175.5033	3,175.5033	0.0154	0.4793	3,318.7268
Worker	1.1664	0.5959	9.1318	0.0277	2.9456	0.0144	2.9600	0.7863	0.0133	0.7995		2,795.7626	2,795.7626	0.0690	0.0667	2,817.3626
Total	**1.3281**	**7.0385**	**11.0434**	**0.0577**	**3.9097**	**0.0577**	**3.9674**	**1.0667**	**0.0547**	**1.1213**		**5,971.2559**	**5,971.2559**	**0.0843**	**0.5460**	**6,136.0794**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	1.7082					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6964**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0450	0.0230	0.3521	1.0700e-003	0.1232	5.6000e-004	0.1238	0.0327	5.1000e-004	0.0332		107.8054	107.8054	2.6600e-003	2.5700e-003	108.6383
Total	**0.0450**	**0.0230**	**0.3521**	**1.0700e-003**	**0.1232**	**5.6000e-004**	**0.1238**	**0.0327**	**5.1000e-004**	**0.0332**		**107.8054**	**107.8054**	**2.6600e-003**	**2.5700e-003**	**108.6383**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	1.7082					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6964**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0450	0.0230	0.3521	1.0700e-003	0.1136	5.6000e-004	0.1141	0.0303	5.1000e-004	0.0308		107.8054	107.8054	2.6600e-003	2.5700e-003	108.6383
Total	**0.0450**	**0.0230**	**0.3521**	**1.0700e-003**	**0.1136**	**5.6000e-004**	**0.1141**	**0.0303**	**5.1000e-004**	**0.0308**		**107.8054**	**107.8054**	**2.6600e-003**	**2.5700e-003**	**108.6383**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Archit. Coating	262.1374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**262.3182**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.2339	0.1195	1.8311	5.5500e-003	0.6408	2.8900e-003	0.6436	0.1700	2.6600e-003	0.1726		560.5879	560.5879	0.0138	0.0134	564.9190
Total	**0.2339**	**0.1195**	**1.8311**	**5.5500e-003**	**0.6408**	**2.8900e-003**	**0.6436**	**0.1700**	**2.6600e-003**	**0.1726**		**560.5879**	**560.5879**	**0.0138**	**0.0134**	**564.9190**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	262.1374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**262.3182**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.2339	0.1195	1.8311	5.5500e-003	0.5906	2.8900e-003	0.5935	0.1577	2.6600e-003	0.1603		560.5879	560.5879	0.0138	0.0134	564.9190
Total	**0.2339**	**0.1195**	**1.8311**	**5.5500e-003**	**0.5906**	**2.8900e-003**	**0.5935**	**0.1577**	**2.6600e-003**	**0.1603**		**560.5879**	**560.5879**	**0.0138**	**0.0134**	**564.9190**

Manteca Airport Business Center North - San Joaquin County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.7480	18.7181	33.8235	0.1304	8.5660	0.1719	8.7379	2.2946	0.1634	2.4580		13,535.2312	13,535.2312	0.3687	1.3538	13,947.8873
Unmitigated	3.7480	18.7181	33.8235	0.1304	8.5660	0.1719	8.7379	2.2946	0.1634	2.4580		13,535.2312	13,535.2312	0.3687	1.3538	13,947.8873

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	1,358.00	1,358.00	1358.00	3,964,696	3,964,696
Total	1,358.00	1,358.00	1,358.00	3,964,696	3,964,696

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
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.536987	0.052416	0.169237	0.150872	0.026159	0.006241	0.012518	0.016886	0.000471	0.000325	0.023246	0.001119	0.003522
Parking Lot	0.536987	0.052416	0.169237	0.150872	0.026159	0.006241	0.012518	0.016886	0.000471	0.000325	0.023246	0.001119	0.003522
Refrigerated Warehouse-No Rail	0.439290	0.042880	0.138447	0.123423	0.021400	0.005106	0.008735	0.198822	0.000000	0.000000	0.019017	0.000000	0.002881

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0165	0.1500	0.1260	9.0000e-004		0.0114	0.0114		0.0114	0.0114		180.0161	180.0161	3.4500e-003	3.3000e-003	181.0859
NaturalGas Unmitigated	0.0165	0.1500	0.1260	9.0000e-004		0.0114	0.0114		0.0114	0.0114		180.0161	180.0161	3.4500e-003	3.3000e-003	181.0859

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	446.575	4.8200e-003	0.0438	0.0368	2.6000e-004		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003		52.5383	52.5383	1.0100e-003	9.6000e-004	52.8505
Parking Lot	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
Refrigerated Warehouse-No Rail	1083.56	0.0117	0.1062	0.0892	6.4000e-004		8.0700e-003	8.0700e-003		8.0700e-003	8.0700e-003		127.4778	127.4778	2.4400e-003	2.3400e-003	128.2354
Total		**0.0165**	**0.1500**	**0.1260**	**9.0000e-004**		**0.0114**	**0.0114**		**0.0114**	**0.0114**		**180.0161**	**180.0161**	**3.4500e-003**	**3.3000e-003**	**181.0859**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	0.446575	4.8200e-003	0.0438	0.0368	2.6000e-004		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003		52.5383	52.5383	1.0100e-003	9.6000e-004	52.8505
Parking Lot	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
Refrigerated Warehouse-No Rail	1.08356	0.0117	0.1062	0.0892	6.4000e-004		8.0700e-003	8.0700e-003		8.0700e-003	8.0700e-003		127.4778	127.4778	2.4400e-003	2.3400e-003	128.2354
Total		**0.0165**	**0.1500**	**0.1260**	**9.0000e-004**		**0.0114**	**0.0114**		**0.0114**	**0.0114**		**180.0161**	**180.0161**	**3.4500e-003**	**3.3000e-003**	**181.0859**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.3451	3.5000e-004	0.0380	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0816	0.0816	2.1000e-004		0.0870
Unmitigated	9.3451	3.5000e-004	0.0380	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0816	0.0816	2.1000e-004		0.0870

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.4364					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.9052					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.5100e-003	3.5000e-004	0.0380	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0816	0.0816	2.1000e-004		0.0870
Total	**9.3451**	**3.5000e-004**	**0.0380**	**0.0000**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**		**0.0816**	**0.0816**	**2.1000e-004**		**0.0870**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.4364					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.9052					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.5100e-003	3.5000e-004	0.0380	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0816	0.0816	2.1000e-004		0.0870
Total	**9.3451**	**3.5000e-004**	**0.0380**	**0.0000**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**		**0.0816**	**0.0816**	**2.1000e-004**		**0.0870**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Manteca Airport Business Center North

San Joaquin County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	10.00	1000sqft	0.23	10,000.00	0
Refrigerated Warehouse-No Rail	350.00	1000sqft	8.03	350,000.00	0
Parking Lot	13.04	Acre	13.04	568,022.40	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2024
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with IS/MND's model.

Land Use - See SWAPE's comments on "Failure to Consider Potential Cold Storage Requirements"

Construction Phase - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Grading - Consistent with IS/MND's model.

Manteca Airport Business Center North - San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Architectural Coating - Consistent with IS/MND's model.

Vehicle Trips - Consistent with IS/MND's model.

Construction Off-road Equipment Mitigation - Consistent with IS/MND's model.

Fleet Mix - Consistent with IS/MND's model.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	5
tblFleetMix	HHD	0.02	0.20
tblFleetMix	LDA	0.54	0.44
tblFleetMix	LDT1	0.05	0.04
tblFleetMix	LDT2	0.17	0.14
tblFleetMix	LHD1	0.03	0.02
tblFleetMix	LHD2	6.2410e-003	5.1060e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.15	0.12
tblFleetMix	MH	3.5220e-003	2.8810e-003
tblFleetMix	MHD	0.01	8.7350e-003
tblFleetMix	OBUS	4.7100e-004	0.00
tblFleetMix	SBUS	1.1190e-003	0.00
tblFleetMix	UBUS	3.2500e-004	0.00
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	ST_TR	2.12	3.88
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	SU_TR	2.12	3.88
tblVehicleTrips	WD_TR	9.74	0.00
tblVehicleTrips	WD_TR	2.12	3.88

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.6913	38.8919	29.5416	0.0835	19.8049	1.6357	21.4182	10.1417	1.5049	11.6259	0.0000	6,150.462 1	6,150.462 1	1.9492	4.6000e-003	6,200.564 8
2023	3.3828	34.5578	28.5095	0.0834	9.3679	1.4253	10.7932	3.6873	1.3113	5.0086	0.0000	8,404.497 4	8,404.497 4	1.9487	0.5709	8,592.399 1
2024	262.5384	21.0527	26.4039	0.0820	4.2256	0.6712	4.8968	1.1442	0.6317	1.7759	0.0000	8,264.253 6	8,264.253 6	0.7170	0.5564	8,447.510 7
Maximum	**262.5384**	**38.8919**	**29.5416**	**0.0834**	**19.8049**	**1.6357**	**21.4182**	**10.1417**	**1.5049**	**11.6259**	**0.0000**	**8,404.497 4**	**8,404.497 4**	**1.9492**	**0.5709**	**8,592.399 1**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.6913	38.8919	29.5416	0.0835	19.7933	1.6357	21.4066	10.1388	1.5049	11.6231	0.0000	6,150.462 1	6,150.462 1	1.9492	4.6000e-003	6,200.564 8
2023	3.3828	34.5578	28.5095	0.0834	9.3550	1.4253	10.7803	3.6942	1.3113	5.0054	0.0000	8,404.497 4	8,404.497 4	1.9487	0.5709	8,592.399 1
2024	262.5384	21.0527	26.4039	0.0820	3.9097	0.6712	4.5808	1.0667	0.6317	1.6984	0.0000	8,264.253 6	8,264.253 6	0.7170	0.5564	8,447.510 7
Maximum	**262.5384**	**38.8919**	**29.5416**	**0.0834**	**19.7933**	**1.6357**	**21.4066**	**10.1388**	**1.5049**	**11.6231**	**0.0000**	**8,404.497 4**	**8,404.497 4**	**1.9492**	**0.5709**	**8,592.399 1**

Manteca Airport Business Center North - San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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	1.02	0.00	0.92	0.56	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.3451	3.5000e-004	0.0380	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0816	0.0816	2.1000e-004		0.0870
Energy	0.0165	0.1500	0.1260	9.0000e-004		0.0114	0.0114		0.0114	0.0114		180.0161	180.0161	3.4500e-003	3.3000e-003	181.0859
Mobile	3.1585	20.3321	34.0983	0.1255	8.5660	0.1723	8.7383	2.2946	0.1638	2.4584		13,043.3257	13,043.3257	0.4100	1.3821	13,465.4545
Total	**12.5200**	**20.4825**	**34.2624**	**0.1264**	**8.5660**	**0.1838**	**8.7498**	**2.2946**	**0.1754**	**2.4700**		**13,223.4235**	**13,223.4235**	**0.4137**	**1.3854**	**13,646.6274**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.3451	3.5000e-004	0.0380	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0816	0.0816	2.1000e-004		0.0870
Energy	0.0165	0.1500	0.1260	9.0000e-004		0.0114	0.0114		0.0114	0.0114		180.0161	180.0161	3.4500e-003	3.3000e-003	181.0859
Mobile	3.1585	20.3321	34.0983	0.1255	8.5660	0.1723	8.7383	2.2946	0.1638	2.4584		13,043.3257	13,043.3257	0.4100	1.3821	13,465.4545
Total	12.5200	20.4825	34.2624	0.1264	8.5660	0.1838	8.7498	2.2946	0.1754	2.4700		13,223.4235	13,223.4235	0.4137	1.3854	13,646.6274

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/15/2022	11/11/2022	5	20	
2	Site Preparation	Site Preparation	11/12/2022	11/25/2022	5	10	
3	Grading	Grading	11/26/2022	1/13/2023	5	35	
4	Building Construction	Building Construction	1/14/2023	6/14/2024	5	370	
5	Paving	Paving	6/15/2024	7/12/2024	5	20	
6	Architectural Coating	Architectural Coating	7/13/2024	8/9/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 105

Acres of Paving: 13.04

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 540,000; Non-Residential Outdoor: 180,000; Striped Parking Area: 34,081 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	389.00	152.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	78.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**		**1.2427**	**1.2427**		**1.1553**	**1.1553**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0498	0.0363	0.3751	1.0300e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333		104.2886	104.2886	3.7700e-003	3.4500e-003	105.4118
Total	**0.0498**	**0.0363**	**0.3751**	**1.0300e-003**	**0.1232**	**6.3000e-004**	**0.1239**	**0.0327**	**5.8000e-004**	**0.0333**		**104.2886**	**104.2886**	**3.7700e-003**	**3.4500e-003**	**105.4118**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**		**1.2427**	**1.2427**		**1.1553**	**1.1553**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0498	0.0363	0.3751	1.0300e-003	0.1136	6.3000e-004	0.1142	0.0303	5.8000e-004	0.0309		104.2886	104.2886	3.7700e-003	3.4500e-003	105.4118
Total	**0.0498**	**0.0363**	**0.3751**	**1.0300e-003**	**0.1136**	**6.3000e-004**	**0.1142**	**0.0303**	**5.8000e-004**	**0.0309**		**104.2886**	**104.2886**	**3.7700e-003**	**3.4500e-003**	**105.4118**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.6570**	**1.6126**	**21.2696**	**10.1025**	**1.4836**	**11.5860**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0598	0.0436	0.4501	1.2400e-003	0.1479	7.5000e-004	0.1486	0.0392	6.9000e-004	0.0399		125.1464	125.1464	4.5300e-003	4.1400e-003	126.4941
Total	**0.0598**	**0.0436**	**0.4501**	**1.2400e-003**	**0.1479**	**7.5000e-004**	**0.1486**	**0.0392**	**6.9000e-004**	**0.0399**		**125.1464**	**125.1464**	**4.5300e-003**	**4.1400e-003**	**126.4941**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.6570**	**1.6126**	**21.2696**	**10.1025**	**1.4836**	**11.5860**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0598	0.0436	0.4501	1.2400e-003	0.1363	7.5000e-004	0.1371	0.0364	6.9000e-004	0.0371		125.1464	125.1464	4.5300e-003	4.1400e-003	126.4941
Total	**0.0598**	**0.0436**	**0.4501**	**1.2400e-003**	**0.1363**	**7.5000e-004**	**0.1371**	**0.0364**	**6.9000e-004**	**0.0371**		**125.1464**	**125.1464**	**4.5300e-003**	**4.1400e-003**	**126.4941**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**9.2036**	**1.6349**	**10.8385**	**3.6538**	**1.5041**	**5.1579**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0664	0.0484	0.5001	1.3800e-003	0.1643	8.3000e-004	0.1651	0.0436	7.7000e-004	0.0444		139.0515	139.0515	5.0300e-003	4.6000e-003	140.5490
Total	**0.0664**	**0.0484**	**0.5001**	**1.3800e-003**	**0.1643**	**8.3000e-004**	**0.1651**	**0.0436**	**7.7000e-004**	**0.0444**		**139.0515**	**139.0515**	**5.0300e-003**	**4.6000e-003**	**140.5490**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**9.2036**	**1.6349**	**10.8385**	**3.6538**	**1.5041**	**5.1579**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0664	0.0484	0.5001	1.3800e-003	0.1514	8.3000e-004	0.1523	0.0404	7.7000e-004	0.0412		139.0515	139.0515	5.0300e-003	4.6000e-003	140.5490
Total	**0.0664**	**0.0484**	**0.5001**	**1.3800e-003**	**0.1514**	**8.3000e-004**	**0.1523**	**0.0404**	**7.7000e-004**	**0.0412**		**139.0515**	**139.0515**	**5.0300e-003**	**4.6000e-003**	**140.5490**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.2036**	**1.4245**	**10.6281**	**3.6538**	**1.3105**	**4.9643**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0611	0.0422	0.4584	1.3300e-003	0.1643	7.9000e-004	0.1651	0.0436	7.2000e-004	0.0443		134.5767	134.5767	4.5100e-003	4.2200e-003	135.9479
Total	**0.0611**	**0.0422**	**0.4584**	**1.3300e-003**	**0.1643**	**7.9000e-004**	**0.1651**	**0.0436**	**7.2000e-004**	**0.0443**		**134.5767**	**134.5767**	**4.5100e-003**	**4.2200e-003**	**135.9479**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.2036**	**1.4245**	**10.6281**	**3.6538**	**1.3105**	**4.9643**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0611	0.0422	0.4584	1.3300e-003	0.1514	7.9000e-004	0.1522	0.0404	7.2000e-004	0.0412		134.5767	134.5767	4.5100e-003	4.2200e-003	135.9479
Total	**0.0611**	**0.0422**	**0.4584**	**1.3300e-003**	**0.1514**	**7.9000e-004**	**0.1522**	**0.0404**	**7.2000e-004**	**0.0412**		**134.5767**	**134.5767**	**4.5100e-003**	**4.2200e-003**	**135.9479**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1559	6.8839	2.0160	0.0306	1.0301	0.0431	1.0732	0.2966	0.0412	0.3378		3,231.7711	3,231.7711	0.0156	0.4887	3,377.8074
Worker	1.1885	0.8215	8.9152	0.0259	3.1955	0.0153	3.2108	0.8476	0.0141	0.8617		2,617.5164	2,617.5164	0.0877	0.0821	2,644.1856
Total	**1.3445**	**7.7054**	**10.9312**	**0.0565**	**4.2256**	**0.0584**	**4.2840**	**1.1442**	**0.0553**	**1.1995**		**5,849.2875**	**5,849.2875**	**0.1033**	**0.5709**	**6,021.9930**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1559	6.8839	2.0160	0.0306	0.9641	0.0431	1.0072	0.2804	0.0412	0.3216		3,231.7711	3,231.7711	0.0156	0.4887	3,377.8074
Worker	1.1885	0.8215	8.9152	0.0259	2.9456	0.0153	2.9609	0.7863	0.0141	0.8003		2,617.5164	2,617.5164	0.0877	0.0821	2,644.1856
Total	**1.3445**	**7.7054**	**10.9312**	**0.0565**	**3.9097**	**0.0584**	**3.9680**	**1.0667**	**0.0553**	**1.1219**		**5,849.2875**	**5,849.2875**	**0.1033**	**0.5709**	**6,021.9930**

Manteca Airport Business Center North - San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1520	6.8876	1.9772	0.0301	1.0301	0.0434	1.0735	0.2966	0.0416	0.3382		3,181.5878	3,181.5878	0.0149	0.4806	3,325.1786
Worker	1.0983	0.7213	8.2598	0.0250	3.1955	0.0144	3.2099	0.8476	0.0133	0.8609		2,526.9669	2,526.9669	0.0788	0.0758	2,551.5244
Total	**1.2504**	**7.6089**	**10.2370**	**0.0551**	**4.2256**	**0.0578**	**4.2835**	**1.1442**	**0.0548**	**1.1990**		**5,708.5547**	**5,708.5547**	**0.0938**	**0.5564**	**5,876.7030**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1520	6.8876	1.9772	0.0301	0.9641	0.0434	1.0075	0.2804	0.0416	0.3220		3,181.5878	3,181.5878	0.0149	0.4806	3,325.1786
Worker	1.0983	0.7213	8.2598	0.0250	2.9456	0.0144	2.9600	0.7863	0.0133	0.7995		2,526.9669	2,526.9669	0.0788	0.0758	2,551.5244
Total	**1.2504**	**7.6089**	**10.2370**	**0.0551**	**3.9097**	**0.0578**	**3.9675**	**1.0667**	**0.0548**	**1.1215**		**5,708.5547**	**5,708.5547**	**0.0938**	**0.5564**	**5,876.7030**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	1.7082					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.6964	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0424	0.0278	0.3185	9.6000e-004	0.1232	5.6000e-004	0.1238	0.0327	5.1000e-004	0.0332		97.4409	97.4409	3.0400e-003	2.9200e-003	98.3878
Total	0.0424	0.0278	0.3185	9.6000e-004	0.1232	5.6000e-004	0.1238	0.0327	5.1000e-004	0.0332		97.4409	97.4409	3.0400e-003	2.9200e-003	98.3878

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	1.7082					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6964**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0424	0.0278	0.3185	9.6000e-004	0.1136	5.6000e-004	0.1141	0.0303	5.1000e-004	0.0308		97.4409	97.4409	3.0400e-003	2.9200e-003	98.3878
Total	**0.0424**	**0.0278**	**0.3185**	**9.6000e-004**	**0.1136**	**5.6000e-004**	**0.1141**	**0.0303**	**5.1000e-004**	**0.0308**		**97.4409**	**97.4409**	**3.0400e-003**	**2.9200e-003**	**98.3878**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Archit. Coating	262.1374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**262.3182**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.2202	0.1446	1.6562	5.0100e-003	0.6408	2.8900e-003	0.6436	0.1700	2.6600e-003	0.1726		506.6926	506.6926	0.0158	0.0152	511.6167
Total	**0.2202**	**0.1446**	**1.6562**	**5.0100e-003**	**0.6408**	**2.8900e-003**	**0.6436**	**0.1700**	**2.6600e-003**	**0.1726**		**506.6926**	**506.6926**	**0.0158**	**0.0152**	**511.6167**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	262.1374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**262.3182**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.2202	0.1446	1.6562	5.0100e-003	0.5906	2.8900e-003	0.5935	0.1577	2.6600e-003	0.1603		506.6926	506.6926	0.0158	0.0152	511.6167
Total	**0.2202**	**0.1446**	**1.6562**	**5.0100e-003**	**0.5906**	**2.8900e-003**	**0.5935**	**0.1577**	**2.6600e-003**	**0.1603**		**506.6926**	**506.6926**	**0.0158**	**0.0152**	**511.6167**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.1585	20.3321	34.0983	0.1255	8.5660	0.1723	8.7383	2.2946	0.1638	2.4584		13,043.3257	13,043.3257	0.4100	1.3821	13,465.4545
Unmitigated	3.1585	20.3321	34.0983	0.1255	8.5660	0.1723	8.7383	2.2946	0.1638	2.4584		13,043.3257	13,043.3257	0.4100	1.3821	13,465.4545

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	1,358.00	1,358.00	1358.00	3,964,696	3,964,696
Total	1,358.00	1,358.00	1,358.00	3,964,696	3,964,696

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
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.536987	0.052416	0.169237	0.150872	0.026159	0.006241	0.012518	0.016886	0.000471	0.000325	0.023246	0.001119	0.003522
Parking Lot	0.536987	0.052416	0.169237	0.150872	0.026159	0.006241	0.012518	0.016886	0.000471	0.000325	0.023246	0.001119	0.003522
Refrigerated Warehouse-No Rail	0.439290	0.042880	0.138447	0.123423	0.021400	0.005106	0.008735	0.198822	0.000000	0.000000	0.019017	0.000000	0.002881

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0165	0.1500	0.1260	9.0000e-004		0.0114	0.0114		0.0114	0.0114		180.0161	180.0161	3.4500e-003	3.3000e-003	181.0859
NaturalGas Unmitigated	0.0165	0.1500	0.1260	9.0000e-004		0.0114	0.0114		0.0114	0.0114		180.0161	180.0161	3.4500e-003	3.3000e-003	181.0859

Manteca Airport Business Center North - San Joaquin County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	446.575	4.8200e-003	0.0438	0.0368	2.6000e-004		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003		52.5383	52.5383	1.0100e-003	9.6000e-004	52.8505
Parking Lot	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
Refrigerated Warehouse-No Rail	1083.56	0.0117	0.1062	0.0892	6.4000e-004		8.0700e-003	8.0700e-003		8.0700e-003	8.0700e-003		127.4778	127.4778	2.4400e-003	2.3400e-003	128.2354
Total		**0.0165**	**0.1500**	**0.1260**	**9.0000e-004**		**0.0114**	**0.0114**		**0.0114**	**0.0114**		**180.0161**	**180.0161**	**3.4500e-003**	**3.3000e-003**	**181.0859**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	0.446575	4.8200e-003	0.0438	0.0368	2.6000e-004		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003		52.5383	52.5383	1.0100e-003	9.6000e-004	52.8505
Parking Lot	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
Refrigerated Warehouse-No Rail	1.08356	0.0117	0.1062	0.0892	6.4000e-004		8.0700e-003	8.0700e-003		8.0700e-003	8.0700e-003		127.4778	127.4778	2.4400e-003	2.3400e-003	128.2354
Total		**0.0165**	**0.1500**	**0.1260**	**9.0000e-004**		**0.0114**	**0.0114**		**0.0114**	**0.0114**		**180.0161**	**180.0161**	**3.4500e-003**	**3.3000e-003**	**181.0859**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.3451	3.5000e-004	0.0380	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0816	0.0816	2.1000e-004		0.0870
Unmitigated	9.3451	3.5000e-004	0.0380	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0816	0.0816	2.1000e-004		0.0870

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.4364					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.9052					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.5100e-003	3.5000e-004	0.0380	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0816	0.0816	2.1000e-004		0.0870
Total	**9.3451**	**3.5000e-004**	**0.0380**	**0.0000**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**		**0.0816**	**0.0816**	**2.1000e-004**		**0.0870**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.4364					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.9052					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.5100e-003	3.5000e-004	0.0380	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0816	0.0816	2.1000e-004		0.0870
Total	**9.3451**	**3.5000e-004**	**0.0380**	**0.0000**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**		**0.0816**	**0.0816**	**2.1000e-004**		**0.0870**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

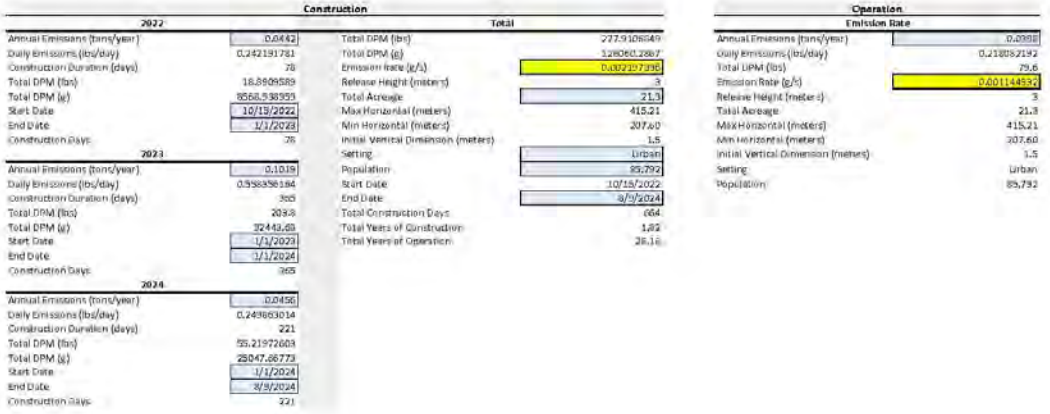
Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Attachment B



Construction	
2022	
Annual Emissions (tons/year)	0.0442
Daily Emissions (lbs/day)	0.242191781
Construction Duration (days)	78
Total DPM (lbs)	18.8909589
Total DPM (g)	8566.538355
Start Date	10/13/2022
End Date	1/1/2023
Construction Days	78
2023	
Annual Emissions (tons/year)	0.1019
Daily Emissions (lbs/day)	0.558356184
Construction Duration (days)	365
Total DPM (lbs)	203.8
Total DPM (g)	92443.69
Start Date	1/1/2023
End Date	1/1/2024
Construction Days	365
2024	
Annual Emissions (tons/year)	0.0456
Daily Emissions (lbs/day)	0.243663014
Construction Duration (days)	221
Total DPM (lbs)	55.21972603
Total DPM (g)	25047.66773
Start Date	1/1/2024
End Date	8/9/2024
Construction Days	221

Total	
Total DPM (lbs)	277.9106849
Total DPM (g)	126060.2867
Emission Rate (g/s)	0.002197396
Release Height (meters)	3
Total Acreage	21.3
Max Horizontal (meters)	415.21
Min Horizontal (meters)	207.60
Initial Vertical Dimension (meters)	1.5
Setting	Urban
Population	85,792
Start Date	10/13/2022
End Date	8/9/2024
Total Construction Days	664
Total Years of Construction	1.82
Total Years of Operation	28.18

Operation	
Emission Rate	
Annual Emissions (tons/year)	0.0988
Daily Emissions (lbs/day)	0.218082192
Total DPM (lbs)	79.6
Emission Rate (g/s)	0.001144832
Release Height (meters)	3
Total Acreage	21.3
Max Horizontal (meters)	415.21
Min Horizontal (meters)	207.60
Initial Vertical Dimension (meters)	1.5
Setting	Urban
Population	85,792

Attachment C

```
AERSCREEN 21112 / AERMOD 21112                                    10/21/22
                                                                  11:24:15

TITLE: Airport Business Centre, Operations


------------------------------------------------------------------------------
*****************************  AREA PARAMETERS  ****************************
------------------------------------------------------------------------------

SOURCE EMISSION RATE:         0.114E-02 g/s            0.909E-02 lb/hr

AREA EMISSION RATE:           0.133E-07 g/(s-m2)       0.105E-06 lb/(hr-m2)
AREA HEIGHT:                      3.00 meters              9.84 feet
AREA SOURCE LONG SIDE:          415.21 meters           1362.24 feet
AREA SOURCE SHORT SIDE:         207.60 meters            681.10 feet
INITIAL VERTICAL DIMENSION:       1.50 meters              4.92 feet
RURAL OR URBAN:                  URBAN
POPULATION:                      85792

INITIAL PROBE DISTANCE =          5000. meters            16404. feet


------------------------------------------------------------------------------
***********************  BUILDING DOWNWASH PARAMETERS  ***********************
------------------------------------------------------------------------------

              BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES


------------------------------------------------------------------------------
**************************  FLOW SECTOR ANALYSIS  ***************************
                25 meter receptor spacing: 1. meters - 5000. meters
------------------------------------------------------------------------------


   MAXIMUM  IMPACT  RECEPTOR

   Zo        SURFACE   1-HR CONC  RADIAL  DIST   TEMPORAL
   SECTOR    ROUGHNESS  (ug/m3)    (deg)   (m)    PERIOD
  ----------------------------------------------------
      1*       1.000    0.6325       0   200.0     WIN
* = worst case diagonal


------------------------------------------------------------------------------
```

```
**********  MAKEMET METEOROLOGY PARAMETERS  **********
--------------------------------------------------------------------------------

MIN/MAX TEMPERATURE:    250.0 / 310.0 (K)

MINIMUM WIND SPEED:       0.5 m/s

ANEMOMETER HEIGHT:     10.000 meters

SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

DOMINANT SURFACE PROFILE: Urban
DOMINANT CLIMATE TYPE:    Average Moisture
DOMINANT SEASON:          Winter

ALBEDO:                  0.35
BOWEN RATIO:             1.50
ROUGHNESS LENGTH:       1.000 (meters)

SURFACE FRICTION VELOCITY (U*) NOT ADUSTED


      METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT
      ------------------------------------------------------------

 YR MO DY JDY HR
 -- -- -- --- --
 10 01 10  10 01

    H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 -1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50

    HT  REF TA     HT
- - - - - - - - - - -
  10.0   310.0    2.0


--------------------------------------------------------------------------------
************************ AERSCREEN AUTOMATED DISTANCES **********************
                  OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE
--------------------------------------------------------------------------------

                    MAXIMUM                             MAXIMUM
          DIST     1-HR CONC                DIST     1-HR CONC
           (m)      (ug/m3)                  (m)      (ug/m3)
        ---------------------              ---------------------
           1.00    0.4874                 2525.00    0.2465E-01
```

25.00	0.5104	2550.00	0.2433E-01
50.00	0.5324	2575.00	0.2402E-01
75.00	0.5524	2600.00	0.2371E-01
100.00	0.5710	2625.00	0.2341E-01
125.00	0.5881	2650.00	0.2311E-01
150.00	0.6039	2675.00	0.2282E-01
175.00	0.6187	2700.00	0.2253E-01
200.00	0.6325	2725.00	0.2226E-01
225.00	0.6291	2750.00	0.2198E-01
250.00	0.4915	2775.00	0.2172E-01
275.01	0.4038	2800.00	0.2145E-01
300.00	0.3543	2825.00	0.2120E-01
325.00	0.3193	2850.00	0.2095E-01
350.00	0.2921	2875.00	0.2070E-01
375.00	0.2708	2900.00	0.2046E-01
400.00	0.2521	2925.00	0.2023E-01
425.00	0.2355	2950.00	0.2000E-01
450.00	0.2207	2975.00	0.1977E-01
475.00	0.2075	3000.00	0.1955E-01
500.00	0.1954	3025.00	0.1933E-01
525.00	0.1845	3050.00	0.1912E-01
550.00	0.1747	3075.00	0.1891E-01
575.00	0.1657	3100.00	0.1870E-01
600.00	0.1574	3125.00	0.1850E-01
625.00	0.1498	3150.00	0.1831E-01
650.00	0.1429	3175.00	0.1811E-01
675.00	0.1364	3200.00	0.1792E-01
700.00	0.1304	3225.00	0.1773E-01
725.00	0.1249	3250.00	0.1755E-01
750.00	0.1197	3275.00	0.1737E-01
775.00	0.1149	3300.00	0.1719E-01
800.00	0.1105	3325.00	0.1702E-01
825.00	0.1063	3350.00	0.1685E-01
850.00	0.1024	3375.00	0.1668E-01
875.00	0.9868E-01	3400.00	0.1652E-01
900.00	0.9524E-01	3425.00	0.1635E-01
925.00	0.9199E-01	3450.00	0.1620E-01
950.00	0.8890E-01	3475.00	0.1604E-01
975.00	0.8600E-01	3500.00	0.1589E-01
1000.00	0.8327E-01	3525.00	0.1573E-01
1025.00	0.8070E-01	3550.00	0.1559E-01
1050.00	0.7825E-01	3575.00	0.1544E-01
1075.00	0.7591E-01	3600.00	0.1530E-01
1100.00	0.7367E-01	3625.00	0.1515E-01
1125.00	0.7155E-01	3650.00	0.1501E-01
1150.00	0.6954E-01	3675.00	0.1488E-01
1175.00	0.6764E-01	3700.00	0.1474E-01
1200.00	0.6583E-01	3725.00	0.1461E-01
1225.00	0.6410E-01	3750.00	0.1448E-01
1250.00	0.6246E-01	3775.00	0.1435E-01

1275.00	0.6088E-01
1300.00	0.5936E-01
1325.00	0.5789E-01
1350.00	0.5648E-01
1375.00	0.5513E-01
1400.00	0.5385E-01
1425.00	0.5261E-01
1450.00	0.5143E-01
1475.00	0.5029E-01
1500.00	0.4920E-01
1525.00	0.4815E-01
1550.00	0.4714E-01
1575.00	0.4615E-01
1600.00	0.4520E-01
1625.00	0.4428E-01
1650.00	0.4340E-01
1675.00	0.4255E-01
1700.00	0.4173E-01
1725.00	0.4093E-01
1750.00	0.4016E-01
1775.00	0.3941E-01
1800.00	0.3868E-01
1825.00	0.3798E-01
1850.00	0.3730E-01
1875.00	0.3665E-01
1900.00	0.3601E-01
1925.00	0.3539E-01
1950.00	0.3479E-01
1975.00	0.3421E-01
2000.00	0.3364E-01
2025.00	0.3308E-01
2050.00	0.3255E-01
2075.00	0.3202E-01
2100.00	0.3152E-01
2125.00	0.3102E-01
2150.00	0.3054E-01
2175.00	0.3008E-01
2200.00	0.2962E-01
2225.00	0.2918E-01
2250.00	0.2875E-01
2275.00	0.2833E-01
2300.00	0.2792E-01
2325.00	0.2752E-01
2350.00	0.2713E-01
2375.00	0.2676E-01
2400.00	0.2639E-01
2425.00	0.2602E-01
2450.00	0.2567E-01
2475.00	0.2532E-01
2500.00	0.2498E-01
3800.00	0.1422E-01
3825.00	0.1410E-01
3850.00	0.1416E-01
3875.00	0.1404E-01
3900.00	0.1392E-01
3925.00	0.1379E-01
3950.00	0.1368E-01
3975.00	0.1356E-01
4000.00	0.1344E-01
4025.00	0.1333E-01
4050.00	0.1322E-01
4075.00	0.1310E-01
4100.00	0.1300E-01
4125.00	0.1289E-01
4150.00	0.1278E-01
4175.00	0.1268E-01
4200.00	0.1257E-01
4225.00	0.1247E-01
4250.00	0.1237E-01
4275.00	0.1227E-01
4300.00	0.1218E-01
4325.00	0.1208E-01
4350.00	0.1198E-01
4375.00	0.1189E-01
4400.00	0.1180E-01
4425.00	0.1171E-01
4450.00	0.1162E-01
4475.00	0.1153E-01
4500.00	0.1144E-01
4525.00	0.1136E-01
4550.00	0.1127E-01
4575.00	0.1119E-01
4600.00	0.1110E-01
4625.00	0.1102E-01
4650.00	0.1094E-01
4675.00	0.1086E-01
4700.00	0.1078E-01
4725.00	0.1070E-01
4750.00	0.1063E-01
4775.00	0.1055E-01
4800.00	0.1048E-01
4825.00	0.1040E-01
4850.00	0.1033E-01
4875.00	0.1026E-01
4900.00	0.1018E-01
4925.00	0.1011E-01
4950.00	0.1004E-01
4975.00	0.9974E-02
5000.00	0.9906E-02

```
--------------------------------------------------------------------------------
**********  AERSCREEN MAXIMUM IMPACT SUMMARY  **********
--------------------------------------------------------------------------------

3-hour, 8-hour, and 24-hour scaled
concentrations are equal to the 1-hour concentration as referenced in
SCREENING PROCEDURES FOR ESTIMATING THE AIR QUALITY
IMPACT OF STATIONARY SOURCES, REVISED (Section 4.5.4)
Report number EPA-454/R-92-019
http://www.epa.gov/scram001/guidance_permit.htm
under Screening Guidance

                    MAXIMUM      SCALED      SCALED      SCALED      SCALED
                     1-HOUR      3-HOUR      8-HOUR      24-HOUR     ANNUAL
  CALCULATION         CONC        CONC        CONC        CONC        CONC
   PROCEDURE        (ug/m3)     (ug/m3)     (ug/m3)     (ug/m3)     (ug/m3)
---------------    ----------  ----------  ----------  ----------  ----------
FLAT TERRAIN       0.6367      0.6367      0.6367      0.6367        N/A

DISTANCE FROM SOURCE        208.00 meters


IMPACT AT THE
AMBIENT BOUNDARY   0.4874      0.4874      0.4874      0.4874        N/A

DISTANCE FROM SOURCE          1.00 meters
```

```
AERSCREEN 21112 / AERMOD 21112                                        10/21/22
                                                                      11:11:57

TITLE: Airport Business Centre, Construction


------------------------------------------------------------------------------
*****************************  AREA PARAMETERS  ****************************
------------------------------------------------------------------------------

SOURCE EMISSION RATE:         0.220E-02 g/s            0.174E-01 lb/hr

AREA EMISSION RATE:           0.255E-07 g/(s-m2)       0.202E-06 lb/(hr-m2)
AREA HEIGHT:                      3.00 meters              9.84 feet
AREA SOURCE LONG SIDE:          415.21 meters           1362.24 feet
AREA SOURCE SHORT SIDE:         207.60 meters            681.10 feet
INITIAL VERTICAL DIMENSION:       1.50 meters              4.92 feet
RURAL OR URBAN:                  URBAN
POPULATION:                      85792

INITIAL PROBE DISTANCE =          5000. meters            16404. feet


------------------------------------------------------------------------------
***********************  BUILDING DOWNWASH PARAMETERS  ***********************
------------------------------------------------------------------------------

              BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES


------------------------------------------------------------------------------
**************************  FLOW SECTOR ANALYSIS  ***************************
                25 meter receptor spacing: 1. meters - 5000. meters
------------------------------------------------------------------------------


   MAXIMUM  IMPACT  RECEPTOR

   Zo         SURFACE   1-HR CONC  RADIAL  DIST   TEMPORAL
   SECTOR     ROUGHNESS  (ug/m3)    (deg)   (m)    PERIOD
  ----------------------------------------------------
      1*        1.000     1.214        0   200.0     WIN
* = worst case diagonal


------------------------------------------------------------------------------
```

```
**********  MAKEMET METEOROLOGY PARAMETERS  **********
--------------------------------------------------------------------------------

MIN/MAX TEMPERATURE:    250.0 / 310.0 (K)

MINIMUM WIND SPEED:       0.5 m/s

ANEMOMETER HEIGHT:     10.000 meters

SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

DOMINANT SURFACE PROFILE: Urban
DOMINANT CLIMATE TYPE:    Average Moisture
DOMINANT SEASON:          Winter

ALBEDO:                  0.35
BOWEN RATIO:             1.50
ROUGHNESS LENGTH:       1.000 (meters)

SURFACE FRICTION VELOCITY (U*) NOT ADUSTED


      METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT
      ------------------------------------------------------------

 YR MO DY JDY HR
 -- -- -- --- --
 10 01 10  10 01

    H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 -1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50

    HT  REF TA     HT
 - - - - - - - - - - -
  10.0   310.0    2.0


--------------------------------------------------------------------------------
********************** AERSCREEN AUTOMATED DISTANCES **********************
                 OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE
--------------------------------------------------------------------------------

                  MAXIMUM                          MAXIMUM
        DIST     1-HR CONC               DIST     1-HR CONC
         (m)      (ug/m3)                 (m)      (ug/m3)
      ----------------------           ----------------------
        1.00    0.9356                2525.00    0.4732E-01
```

25.00	0.9797	2550.00	0.4670E-01
50.00	1.022	2575.00	0.4610E-01
75.00	1.060	2600.00	0.4550E-01
100.00	1.096	2625.00	0.4493E-01
125.00	1.129	2650.00	0.4436E-01
150.00	1.159	2675.00	0.4380E-01
175.00	1.188	2700.00	0.4325E-01
200.00	1.214	2725.00	0.4272E-01
225.00	1.207	2750.00	0.4219E-01
250.00	0.9435	2775.00	0.4168E-01
275.01	0.7751	2800.00	0.4118E-01
300.00	0.6801	2825.00	0.4069E-01
325.00	0.6128	2850.00	0.4021E-01
350.00	0.5606	2875.00	0.3974E-01
375.00	0.5198	2900.00	0.3928E-01
400.00	0.4839	2925.00	0.3882E-01
425.00	0.4520	2950.00	0.3838E-01
450.00	0.4236	2975.00	0.3795E-01
475.00	0.3982	3000.00	0.3752E-01
500.00	0.3751	3025.00	0.3711E-01
525.00	0.3542	3050.00	0.3670E-01
550.00	0.3353	3075.00	0.3630E-01
575.00	0.3180	3100.00	0.3590E-01
600.00	0.3021	3125.00	0.3552E-01
625.00	0.2875	3150.00	0.3514E-01
650.00	0.2742	3175.00	0.3476E-01
675.00	0.2618	3200.00	0.3440E-01
700.00	0.2504	3225.00	0.3404E-01
725.00	0.2397	3250.00	0.3369E-01
750.00	0.2298	3275.00	0.3334E-01
775.00	0.2206	3300.00	0.3300E-01
800.00	0.2121	3325.00	0.3267E-01
825.00	0.2041	3350.00	0.3234E-01
850.00	0.1965	3375.00	0.3202E-01
875.00	0.1894	3400.00	0.3170E-01
900.00	0.1828	3425.00	0.3139E-01
925.00	0.1766	3450.00	0.3109E-01
950.00	0.1706	3475.00	0.3079E-01
975.00	0.1651	3500.00	0.3049E-01
1000.00	0.1598	3525.00	0.3020E-01
1025.00	0.1549	3550.00	0.2992E-01
1050.00	0.1502	3575.00	0.2963E-01
1075.00	0.1457	3600.00	0.2936E-01
1100.00	0.1414	3625.00	0.2909E-01
1125.00	0.1373	3650.00	0.2882E-01
1150.00	0.1335	3675.00	0.2856E-01
1175.00	0.1298	3700.00	0.2830E-01
1200.00	0.1264	3725.00	0.2804E-01
1225.00	0.1230	3750.00	0.2779E-01
1250.00	0.1199	3775.00	0.2754E-01

1275.00	0.1169	3800.00	0.2730E-01
1300.00	0.1139	3825.00	0.2706E-01
1325.00	0.1111	3850.00	0.2719E-01
1350.00	0.1084	3875.00	0.2695E-01
1375.00	0.1058	3900.00	0.2671E-01
1400.00	0.1034	3925.00	0.2648E-01
1425.00	0.1010	3950.00	0.2625E-01
1450.00	0.9872E-01	3975.00	0.2602E-01
1475.00	0.9654E-01	4000.00	0.2580E-01
1500.00	0.9444E-01	4025.00	0.2558E-01
1525.00	0.9243E-01	4050.00	0.2537E-01
1550.00	0.9048E-01	4075.00	0.2515E-01
1575.00	0.8858E-01	4100.00	0.2494E-01
1600.00	0.8676E-01	4125.00	0.2474E-01
1625.00	0.8500E-01	4150.00	0.2453E-01
1650.00	0.8330E-01	4175.00	0.2433E-01
1675.00	0.8167E-01	4200.00	0.2414E-01
1700.00	0.8009E-01	4225.00	0.2394E-01
1725.00	0.7856E-01	4250.00	0.2375E-01
1750.00	0.7707E-01	4275.00	0.2356E-01
1775.00	0.7564E-01	4300.00	0.2337E-01
1800.00	0.7425E-01	4325.00	0.2319E-01
1825.00	0.7290E-01	4350.00	0.2300E-01
1850.00	0.7160E-01	4375.00	0.2282E-01
1875.00	0.7034E-01	4400.00	0.2265E-01
1900.00	0.6912E-01	4425.00	0.2247E-01
1925.00	0.6793E-01	4450.00	0.2230E-01
1950.00	0.6679E-01	4475.00	0.2213E-01
1975.00	0.6566E-01	4500.00	0.2196E-01
2000.00	0.6457E-01	4525.00	0.2180E-01
2025.00	0.6350E-01	4550.00	0.2163E-01
2050.00	0.6247E-01	4575.00	0.2147E-01
2075.00	0.6147E-01	4600.00	0.2131E-01
2100.00	0.6049E-01	4625.00	0.2115E-01
2125.00	0.5955E-01	4650.00	0.2100E-01
2150.00	0.5863E-01	4675.00	0.2084E-01
2175.00	0.5773E-01	4700.00	0.2069E-01
2200.00	0.5686E-01	4725.00	0.2054E-01
2225.00	0.5601E-01	4750.00	0.2040E-01
2250.00	0.5518E-01	4775.00	0.2025E-01
2275.00	0.5438E-01	4800.00	0.2011E-01
2300.00	0.5359E-01	4825.00	0.1996E-01
2325.00	0.5283E-01	4850.00	0.1982E-01
2350.00	0.5208E-01	4875.00	0.1968E-01
2375.00	0.5135E-01	4900.00	0.1955E-01
2400.00	0.5065E-01	4925.00	0.1941E-01
2425.00	0.4995E-01	4950.00	0.1928E-01
2450.00	0.4927E-01	4975.00	0.1915E-01
2475.00	0.4860E-01	5000.00	0.1901E-01
2500.00	0.4795E-01		

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---------------------------------------------------------------------------
**********  AERSCREEN MAXIMUM IMPACT SUMMARY  **********
---------------------------------------------------------------------------

3-hour, 8-hour, and 24-hour scaled
concentrations are equal to the 1-hour concentration as referenced in
SCREENING PROCEDURES FOR ESTIMATING THE AIR QUALITY
IMPACT OF STATIONARY SOURCES, REVISED (Section 4.5.4)
Report number EPA-454/R-92-019
http://www.epa.gov/scram001/guidance_permit.htm
under Screening Guidance

                    MAXIMUM      SCALED      SCALED      SCALED      SCALED
                     1-HOUR      3-HOUR      8-HOUR      24-HOUR     ANNUAL
  CALCULATION         CONC        CONC        CONC        CONC        CONC
   PROCEDURE        (ug/m3)     (ug/m3)     (ug/m3)     (ug/m3)     (ug/m3)
---------------    ----------  ----------  ----------  ----------  ----------
FLAT TERRAIN        1.222       1.222       1.222       1.222       N/A

DISTANCE FROM SOURCE        208.00 meters


IMPACT AT THE
AMBIENT BOUNDARY   0.9356      0.9356      0.9356      0.9356       N/A

DISTANCE FROM SOURCE          1.00 meters
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Attachment D

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

2656 29th Street, Suite 201
Santa Monica, CA 90405

Matt Hagemann, P.G, C.Hg.
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mhagemann@swape.com

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
Industrial Stormwater Compliance
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2104, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 100 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F.** 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

Attachment E

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
Mobil: (310) 795-2335
Office: (310) 452-5555
Fax: (310) 452-5550
Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, industrial, military and agricultural sources, unconventional oil drilling operations, and locomotive and construction engines. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities. Dr. Rosenfeld has also successfully modeled exposure to contaminants distributed by water systems and via vapor intrusion.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, creosote, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at sites and has testified as an expert witness on numerous cases involving exposure to soil, water and air contaminants from industrial, railroad, agricultural, and military sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program, 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health*. 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P.**, (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment. Air Pollution,* 123 (17), 319-327.

Tam L. K., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

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Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004*. New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality*. 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld.** (1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., "The science for Perfluorinated Chemicals (PFAS): What makes remediation so hard?" Law Seminars International, (May 9-10, 2018) 800 Fifth Avenue, Suite 101 Seattle, WA.

Rosenfeld, P.E., Sutherland, A, Hesse, R., Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society*. Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

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Rosenfeld, P.E. (April 19-23, 2009). Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

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Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

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Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting*. Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition*. Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference*. Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

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Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference*. Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

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Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants.*. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

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Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington.

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conference*. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation*. Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest*. Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

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Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest*. Lecture conducted from Lake Chelan, Washington.

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Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 5-14-2021
Trial, October 8-4-2021

In the Circuit Court of Cook County Illinois
Joseph Rafferty, Plaintiff vs. Consolidated Rail Corporation and National Railroad Passenger Corporation d/b/a AMTRAK,
Case No.: No. 18-L-6845
Rosenfeld Deposition, 6-28-2021

In the United States District Court For the Northern District of Illinois
Theresa Romcoe, Plaintiff vs. Northeast Illinois Regional Commuter Railroad Corporation d/b/a METRA Rail, Defendants
Case No.: No. 17-cv-8517
Rosenfeld Deposition, 5-25-2021

In the Superior Court of the State of Arizona In and For the Cunty of Maricopa
Mary Tryon et al., Plaintiff vs. The City of Pheonix v. Cox Cactus Farm, L.L.C., Utah Shelter Systems. Inc.
Case Number CV20127-094749
Rosenfeld Deposition: 5-7-2021

In the United States District Court for the Eastern District of Texas Beaumont Division
Robinson, Jeremy et al *Plaintiffs*, vs. CNA Insurance Company et al.
Case Number 1:17-cv-000508
Rosenfeld Deposition: 3-25-2021

In the Superior Court of the State of California, County of San Bernardino
Gary Garner, Personal Representative for the Estate of Melvin Garner vs. BNSF Railway Company.
Case No. 1720288
Rosenfeld Deposition 2-23-2021

In the Superior Court of the State of California, County of Los Angeles, Spring Street Courthouse
Benny M Rodriguez vs. Union Pacific Railroad, A Corporation, et al.
Case No. 18STCV01162
Rosenfeld Deposition 12-23-2020

In the Circuit Court of Jackson County, Missouri
Karen Cornwell, *Plaintiff*, vs. Marathon Petroleum, LP, *Defendant*.
Case No.: 1716-CV10006
Rosenfeld Deposition. 8-30-2019

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs*, vs. United States Metals Refining Company et. al. *Defendant*.
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168 , Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case No.: 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No.: 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In United States District Court For The Southern District of Mississippi
Guy Manuel vs. The BP Exploration et al., Defendants
Case: No 1:19-cv-00315-RHW
Rosenfeld Deposition, 4-22-2020

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition. July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs*, vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court for the Middle District of Alabama, Northern Division
James K. Benefield, et al., *Plaintiffs*, vs. International Paper Company, *Defendant.*
Civil Action Number 2:09-cv-232-WHA-TFM
Rosenfeld Deposition: July 2010, June 2011

In the Circuit Court of Jefferson County Alabama
Jaeanette Moss Anthony, et al., *Plaintiffs*, vs. Drummond Company Inc., et al., *Defendants*
Civil Action No. CV 2008-2076
Rosenfeld Deposition: September 2010

In the United States District Court, Western District Lafayette Division
Ackle et al., *Plaintiffs*, vs. Citgo Petroleum Corporation, et al., *Defendants*.
Case Number 2:07CV1052
Rosenfeld Deposition: July 2009

Response to Letter C: Gary Ho, Blum Collins & Ho, LLP

Response C-1: This comment serves as an introduction to the letter. No response is warranted.

Response C-2: The commentor states that the MND does not include a floor plan, detailed grading plan, or detailed site plan for the proposed Project. The commentor further states that the site plan provided in Figure 3: Site Plan does not provide any pertinent information such as the earthwork quantity notes, parking requirements, or floor area ratio calculations. The commentor also states that Figure 4: Project Elevations has also been edited for public review and does not provide any information, such as the materials utilized or the building heights. Additionally, the commentor states that a grading plan and floor plans have not been provided for public review. The commentor states that the MND has excluded these required application items from public review and edited them into forms that do not represent them meaningfully, which does not comply with CEQA's requirements for adequate informational documents and meaningful disclosure (CEQA § 15121 and 21003(b)). The commentor claims that incorporation by reference (CEQA §15150 (f)) is not appropriate as these documents contribute directly to analysis of the problem at hand. The commentor further states that providing this information is vital as the MND does not provide any details about the onsite/offsite grading required by the proposed project. The commentor states that an EIR must be prepared to include all application items for review, analysis, and comment by the public and decision makers.

This comment is noted. A detailed site plan is required for approval of the requested entitlements by the City of Manteca. The IS/MND is not required to include all applicable plans that are ultimately prepared, some of which are not prepared until entitlements are secured. For instance, full improvement and grading plans are engineered drawings that are prepared if entitlements are secured. The site plan included in the IS/MND is sufficient for a CEQA analysis. Meaningful disclosure is provided for the proposed Project, including within the Project Description prepared for the IS/MND. The written Project Description provides sufficient detail for the project consideration. The IS/MND adequately addressed CEQA requirements and an EIR is not required, as explained further throughout Responses C-3 through C-21, below. We have added Appendix E with a set of conceptual plans; however, it is noted that the requested grading plans are not engineered for a project unless a project's entitlement request is approved. Engineered grading plans are not necessary to perform a CEQA review of the project. No further response to this comment is warranted.

Response C-3: This comment cites tiering criteria and argues that an EIR must be prepared because a website link to the City's website does not provide public access to the Addendum to the Northwest Airport Master Plan EIR.

The City's "Planning Documents" site, which was referenced in the Initial Study, provides a pdf copy of the Northwest Airport Way Master Plan, Northwest Airport Way Master Plan Draft EIR, and Northwest Airport Way Master Plan Final EIR. These are the original CEQA documents that were prepared and certified for the Master Plan area. Subsequent

to the certification of the EIR, several projects within the Master Plan area have been designed for development, and with those projects a CEQA analysis was performed. This includes the Airport Business Center IS/MND, CenterPoint South IS/MND, Intermodal Way Extension IS/MND, GBx Manteca IS/MND, and an EIR Addendum for CenterPoint Container Yard 2. All these documents are available at the City of Manteca, whom holds these records as part of the official approval of these individual projects. The EIR Addendum in question can also be found on the City's website at the following link:

https://www.ci.manteca.ca.us/CommunityDevelopment/Planning%20Division/PlanningCommissionDocuments/2019%20Planning%20Commission%20Agendas/05%20-%20May%2028,%202019%20Meeting%20Agenda/Item%206.1%20%20CenterPoint%20Container%20Yard%202,%20SPC-17-38%20and%20SPC-17-40/Item%206.1%20%20Attachment%205.pdf

All documents in question are available both electronically on the City's website, and in person at the City's Planning Department.

Response C-4: This comment suggests that the MND severely misrepresents the proposed Project and under-represents the proposed Project's significant impacts. The comment argues that a new EIR is warranted based on new information being produced since the Northwest Airport Way Master Plan EIR was certified. The commenter specifically identifies the enactment of SB 743 and a requirement for a VMT analysis.

The commenter fundamentally misunderstands tiering and how tiering has been appropriately conducted under the Northwest Airport Way Master Plan EIR and subsequent CEQA documents for individual projects under the Master Plan. Page 4 of the Final Initial Study presents a background discussion of past Master Plan approvals, and EIR tiering. The following excerpt is from page 4 of the Initial Study:

> *Tiering*
>
> *According to CEQA Guidelines section 15168, subdivision (c)(5), "[a] program EIR will be most helpful in dealing with later activities if it provides a description of planned activities that would implement the program and deals with the effects of the program as specifically and comprehensively as possible." Later environmental documents (EIRs, mitigated negative declarations, or negative declarations) can incorporate by reference materials from the program EIR regarding regional influences,* secondary impacts, cumulative impacts, broad alternatives, and other factors (CEQA Guidelines Section 15168[d][2]). These later documents need only focus on new impacts that have not been considered before (CEQA Guidelines Section 15168[d][3]).
>
> Section 15168(c), entitled "Use with Later Activities," provides, in pertinent part, as follows:
>
> Later activities in the program must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared:
>
> 1. If a later activity would have effects that were not examined in the program EIR, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration. That later analysis may tier from the program EIR as provided in Section 15152.

2. If the agency finds that pursuant to Section 15162, no subsequent EIR would be required, the agency can approve the activities as being within the scope of the project covered by the program EIR, and no new environmental document would be required. Whether a later activity is within the scope of a program EIR is a factual question that the lead agency determines based on substantial evidence in the record. Factors that an agency may consider in making that determination include, but are not limited to, consistency of the later activity with the type of allowable land use, overall planned density and building intensity, geographic area analyzed for environmental impacts, and covered infrastructure, as described in the program EIR.
3. An agency shall incorporate feasible mitigation measures and alternatives developed in the program EIR into later activities in the program.
4. Where the later activities involve site specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were within the scope of the program EIR.

Generally, when a property owner submits applications for site-specific approvals (i.e., tentative maps, conditional use permits, or other discretionary entitlements), the City staff will review the applications for *consistency* with the higher tier document. This consistency review ultimately determines whether the application for site specific approval is consistent with the higher tier document, Conditions of Approval, and Mitigation Measures, and whether it is consistent with what was anticipated and analyzed in the program EIR. Often a City will conclude that most, or all, components of the site-specific application can be developed with no new analysis of environmental effects, or a focused analysis limited to the environmental effects that could not be reasonably foreseen at the time the certified EIR was prepared.

These site-specific approvals may be narrowed pursuant to the rules for tiering set forth in CEQA Guidelines Section 15152. "'[T]iering is a process by which agencies can adopt programs, plans, policies, or ordinances with EIRs focusing on 'the big picture,' and can then use streamlined CEQA review for individual projects that are consistent with such…[first tier decisions] and are…consistent with local agencies' governing general plans and zoning.'" (Koster v. County of San Joaquin (1996) 47 Cal.App.4th 29, 36.) Section 15152 provides that, where a first-tier EIR has "adequately addressed" the subject of cumulative impacts, such impacts need not be revisited in second- and third-tier documents. Furthermore, second- and third-tier documents may limit the examination of impacts to those that "were not examined as significant effects" in the prior EIR or "[a]re susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or other means." In general, significant environmental effects have been "adequately addressed" if the lead agency determines that:

a. they have been mitigated or avoided as a result of the prior environmental impact report and findings adopted in connection with that prior environmental impact report; or
b. they have been examined at a sufficient level of detail in the prior environmental impact report to enable those effects to be mitigated or avoided by site specific revisions, the imposition of conditions, or by other means in connection with the approval of the later project.

Where a site-specific approval within the City warrants additional environmental review, there are several paths forward. This includes an EIR Addendum, a Mitigated Negative Declaration, or some form of Environmental Impact Report. The Mitigated Negative Declaration is a form of CEQA review that is commonly prepared for small projects built out under a Master Plan with a certified EIR. Based on the characteristics of the proposed Project, the City of Manteca has determined it is appropriate to develop an IS/MND for the proposed Project, using the tiering concept. Therefore, this IS/MND tiers from the Northwest Airport Way Master Plan EIR and the Addendum to the Northwest Airport Way Master Plan EIR.

The commenter is directed to page 122 through 125 of the Initial Study for a VMT analysis that was prepared in accordance with SB 743. Here, the City has responded to new statutory requirements to prepare a VMT analysis. This VMT analysis is subsequent to, and supplementary to, the certified EIR for which this project analysis is tiered. This analysis presents new information, provides an analysis, and concludes that the impact is less than significant. The commenter incorrectly presumes that the existence of "new information" guarantees the need for an EIR to be prepared, when in fact this is not what is specified in the CEQA Guidelines Section 15162(s). The statute provides four warrants for when a Subsequent or Supplemental EIR would be warranted for a project that has "new information." The City responded to the statutory requirements by preparing the Initial Study for this project to determine if any of the four warrants would be met. After the analysis it was found that none of the four warrants were met. More specifically, the VMT analysis, which the commenter cites as a source of "new information" that warrants an EIR, was found by the Traffic Engineer to be a less than significant impact. The City intends to continue to comply with the SB 743 VMT analysis requirements for any project that develops within an area that already has a certified EIR, but where that EIR did not include a VMT analysis because no such analysis was required. These subsequent and supplementary VMT analyses will guide the City in determining where a Supplemental or Subsequent EIR is warranted, and were a Mitigated Negative Declaration or Exemption is warranted. Based on the analysis in the Initial Study, and all facts in the record, there are no new transportation impacts as a result of the VMT analysis.

Response C-5: This comment suggests that MND does not accurately describe the proposed Project, and suggests that the proposed Project has been piecemealed. The commenter provides a list of five known buildings and uses a term "CenterPoint Intermodal Center Manteca" to describe these projects.

As discussed under Response C-3, the commenter fundamentally misunderstands tiering and how tiering has been appropriately conducted under the Northwest Airport Way Master Plan EIR.

What the commenter has described is individual sites that have been developed within the approved Northwest Airport Master Plan. As stated throughout the Initial Study, the proposed Project is located within this Northwest Airport Master Plan, just as the five projects listed by the commenter are located in the same Master Plan area. The term "CenterPoint Intermodal Center Manteca" appears to be a marketing name that one of the property owners within the Northwest Airport Master Plan area has assigned to market their properties for sale. Property developers assigning a marketing name to properties for sale is common after City approvals are made. The City recognizes the Master Plan area under the approved Northwest Airport Master Plan, not under the marketing name.

The commenter misapplies the term "piecemealing" to the proposed Project. Instead, the Initial Study clearly articulates the Project Background, including the previously certified

program-level EIR for the Northwest Airport Way Master Plan and the CEQA "Tiering" statutes beginning on page 5. This is discussed under Response C-3.

Response C-6: This commenter provides a set of comments regarding the "Air Quality, Energy, and Greenhouse Gas Emissions" analysis. The commentor refers to the attachments from SWAPE for a complete technical commentary and analysis. The commentor then states that the IS/MND does not include analysis for relevant environmental justice issues. The commentor states that this is particularly important, since the surrounding community is highly burdened by pollution. The commentor states that, according to CalEnviroScreen 4.0, CalEPA's screening tool that ranks each census tract in the state for pollution and socioeconomic vulnerability, the proposed project's census tract (6077005119) ranks worse than 98% of the rest of the state overall. The commentor provides additional statistics for the community's exposure to air pollution, and states that, since the community has a high rate of linguistic isolation and low educational attainment, the community is highly vulnerable. The commentor also states that the proposed Project's census tract is identified as an SB 535 Disadvantaged Community.

The commentor also states that CalEEMod, which was used (in part) to estimate Project energy usage, is not a State-approved energy compliance modeling software, and since the CalEEMod modeling does not comply with the California 2022 Building Energy Efficiency Standards, the modeling is inaccurate. The commentor further states that, therefore, a finding of significance for energy impacts must be made.

It should be noted that topic of "environmental justice" or "fair treatment" is not referenced in the CEQA Guidelines and is not a required impact category. Social and economic impacts that are not related to physical impacts are not considered within an environmental analysis. The Initial Study, however, does provide an analysis of environmental topics revolving around pollution (i.e. air quality pollution, water quality pollution, etc.), that ultimately become important considerations for elected officials as they deliberate on entitlement requests and the social, economic, and environmental impacts that the entitlements would have on the community.

The IS/MND has evaluated each of the proposed Project's environmental impacts against the relevant thresholds (such as via an air toxic health risk screening, using the Air District's air toxic health risk screening Prioritization Calculator,[1] to determine the total cancer and non-cancer air toxic health risks and the nearby sensitive receptors) and checked consistency with the applicable plans (such as the Northwest Airport Way Master Plan and its associated EIR). Moreover, the IS/MND has incorporated mitigation measures where applicable and feasible, made appropriate significance determinations, and evaluated cumulative impacts. As noted earlier in this response, CEQA does not use the terms "fair treatment" or "environmental justice". Rather, CEQA centers on whether a project may have a significant effect on the physical environment, regardless of

[1] See here for further detail (under 'Screening Tools'): https://www.valleyair.org/transportation/ceqa_idx.htm

socioeconomic conditions, including income levels of the residents. For instance, air quality impacts are measured against a threshold established for the region, which is not weighted or modified up or down based on a socioeconomic condition. The threshold itself is a metric by which an analyst can make a determination of the physical environmental impact caused by a project. The thresholds are established by the Air District, whose responsibility is to maintain and/or improve ambient air quality conditions to state and federal levels for all people.

Nevertheless, CEQA does require a lead agency to consider whether a project's effects, while individually limited, are "cumulatively considerable" and therefore significant when combined with other projects. The City has considered the cumulative effects of developing the Project site with Industrial uses when they certified the Northwest Airport Master Plan EIR, as well as when they certified the General Plan EIR.

Separately, the City of Manteca considers alternative locations early in the application process. The City's key considerations in identifying an alternative location are as follows:

- Is there an alternative location where significant effects of the proposed Project would be avoided or substantially lessened?
- Is there a site available within the City's Sphere of Influence with the appropriate size and characteristics such that it would meet the basic Project objectives?

The City's consideration of alternative locations at the Project application level included a review of previously approved land use planning and environmental documents in Manteca including the General Plan and Northwest Airport Way Master Plan. The City noted that the Project site has been designated for industrial land uses for over a decade. The City has determined that industrial uses in this part of the City is appropriate, in part, because of the rail infrastructure and access to major highways that would support such uses. The City has found that there are no feasible alternative locations that exist within the city limits with the appropriate size and characteristics that would meet the basic Project objectives and avoid or substantially lessen one or more significant effects of the proposed Project. The City has determined that alternative locations outside the city limits would have greater impacts that development within the city limits. For these reasons, the City of Manteca determined that there are no feasible alternative locations.

In addition, as discussed in Citizens of Goleta Valley v. Board of Supervisors (1990) 52 Cal.3d 553 (Goleta II), where a project is consistent with an approved general plan, no off-site alternative need be analyzed. As stated in the Project Description, no General Plan amendment or zoning change is required for the proposed Project, as the proposed Project was previously planned for by the existing General Plan. The proposed Project is consistent with the types of uses considered in the Manteca General Plan and associated EIR.

Overall, CEQA's purpose is neither "fair treatment" nor "environmental justice" in the sense of socioeconomic conditions. Rather, CEQA centers on whether a project may have

a significant effect on the physical environment. The Draft IS/MND is consistent with the requirements of CEQA. Lastly, it should be noted that CalEEMod was used (in part) to estimate Project energy usage, as it is the Air District's recommended model for estimating Project energy emissions for CEQA projects. It is noted that the Air District reviewed the proposed Project, and included a comment provided herein. Nowhere in their comment did they suggest that a different model should be used for this analysis. There are no "approved energy compliance modeling softwares" for calculating energy consumption for the purposes of CEQA. The California s Building Energy Code Compliance Software (CBECC), identified by the commentor, is not relevant to estimating energy consumption under CEQA. Moreover, the latest version of CalEEMod (CalEEMod Version 2020.4.0), which was used (in part) to estimate Project energy usage, accounts for the California 2019 Energy Efficiency Standards, according to Appendix A of the CalEEMod guidance,[2] in contrast to the commentor's comment that CalEEMod does not comply with the California Building Energy Efficiency Standards. Moreover, since the 2019 Energy Efficiency Standards are less stringent that the latest 2022 Energy Efficiency Standards, the energy impacts associated with the proposed Project are underestimated in comparison to their actual impacts. See the Final IS/MND and/or Appendix B of the Final IS/MND for further detailed results.

Response C-7: This comment suggests that an EIR needs to be prepared to include a consistency analysis with all General Plan goals and policies, including goals and policies of the General Plan Update.

The currently adopted General Plan is the 2023 General Plan, which is the same General Plan that was in effect at the time the Northwest Airport Master Plan was approved and the Draft EIR was certified. Page 3.9-17 through 3.9-53 of the Northwest Airport Master Plan Draft EIR includes the Northwest Airport Way Master Plan General Plan Consistency Analysis. The DEIR consistency analysis concludes that the Master Plan is consistent with the General Plan with the implementation of all mitigation measures and conditions imposed on projects developed within the Master Plan area. As stated in the in the Initial Study, the proposed Project is consistent with the light industrial design standards and guidelines established in the approved Northwest Airport Way Master Plan, and implements the small-scale light industrial uses that are encouraged within the Northwest Airport Way Master Plan. Additionally, all relevant mitigation measures from the certified EIR are incorporated into the Initial Study. All conditions of approval run with the land and are in effect. Therefore, the proposed Project is consistent with the applicable General Plan.

The commenter has specifically noted one goal and two policies that they believe should be analyzed for the proposed Project. These are listed below:

[2] See here: http://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/appendix-a2020-4-0.pdf?sfvrsn=6

- Goal AQ-2. Integrate air quality planning with land use and transportation planning processes in order to reduce vehicle miles traveled in the City and by commuters.
- C-P-49: The city shall require that new industrial development pay a fair share toward improvements required to accommodate heavy vehicles, including increased pavement wear.
- C-P-53: The City shall establish a requirement for a TDM program in any business park, industrial or commercial land use that employs more than 50 full time equivalent employees.

A Project-specific analysis focuses on consistency with the policies established by the City, and does not include a consistency analysis with goals. Goals are very broad based, whereas policies are more focused. For instance, Goal AQ-2 is a broad goal regarding regional planning as it related to land use, transportation, and air quality. Nevertheless, the City has taken steps to achieve this goal through the implementation of their land use plan, circulation plan, and their focus on reducing VMT citywide. The circulation patterns for the Master Plan itself have undergone considerable planning and engineering efforts since it was first approved. This circulation patterns have evolved such that the original plan to direct heavy truck traffic onto Airport Way and Lathrop Road has been modified to focus heavy truck traffic on Intermodal Way (internal to the Master Plan) north bound to Roth Road, then west bound to I-5. This traffic pattern modification was developed through communication and coordination with nearby residents of Manteca and the City of Lathrop. The concern was that heavy truck traffic would both congest these roadways, and provide a higher level of toxic air contaminants on these roadways. By integrating transportation, land use, and air quality, the City developed a pattern that would focus heavy truck traffic to roadways that would be least likely to impact residents, and focus only passenger vehicle traffic to the roadways of concern. The solution developed by the City is consistent with Goal AQ-2.

The proposed Project is consistent with policy C-P-49. The City has an established Public Facilities Implementation Plan (PFIP) that funds local roadway improvements, including increased pavement wear. Additionally, there are regional traffic impact fees that are charged for more regional roadway impacts. This policy is established in the General Plan, and it is implemented by the City through their existing programs. The City conditions all projects to pay the appropriate impact fees prior to grading permit. The City considers payment of these impact fees as a fair share of their impact.

The proposed Project is consistent with policy C-P-53. The City has an established travel demand model that is developed for the entire City. The model is regularly updated as new projects are developed. The forecasting that is performed through the modeling informs the City on how to manage traffic volumes and congestion within specific areas impacted by new projects. The City then conditions each project with specific improvements needed to manage traffic congestion. The Final IS/MND page 122 includes

the following Conditions of Approval that are intended to manage travel demand based on forecasting that has been performed.

- Traffic COA #1 – The developer shall pay for the total cost of construction of the Proposed Private Drive on the west site of the project site and require all truck traffic (delivery, California, and Surface Transportation Assistance Act – STAA) to use Intermodal Drive to access the Airport Business Centre North Project.
- Traffic COA #2 – The developer shall pay their fair share for improvements identified in the City of Manteca Public Facilities Implementation Plan (PFIP) by paying current fees as determined by the City of Manteca prior to issuance of building permits to improve intersections in the City of Manteca.
- Traffic COA #3 – The developer shall pay their fair share of the SJCOG Regional Transportation Impact Fee (RTIF) by paying current fees as determined by the City of Manteca prior to issuance of building permits top improve the Roth Road Corridor in the City of Manteca, City of Lathrop, and San Joaquin County.
- Traffic COA #4 – The developer shall work with the City of Manteca Engineering Department and Caltrans District 10 to document STAA Terminal Access Route from Interstate 5 to Roth Road / Intermodal Way and Tactical Way / Airport Business Centre truck turnaround area.
- Traffic COA #5 – The developer shall pay for the current PFIP fee as determined by the City of Manteca prior to issuance of building permits to mitigate the Union Road / Lathrop Road intersection under Cumulative Conditions. Based on the City of Manteca General Plan Travel Demand Forecasting (TDF) Model. the project contributes 1.3 percent of the volume at this intersection under Cumulative Plus Project Conditions, Therefore, the project's fair share contribution would be 1.3 percent of the total cost of installing a new traffic signal controller and completing a traffic signal timing optimization study that was identified as COA#3 for the North Manteca Annexation Project.

It should be noted that the General Plan Update is not approved, is subject to change, does not have a certified EIR, and is not valid currently. As such, it is not part of the baseline conditions for the proposed Project. The General Plan Update and its Draft EIR have undergone multiple revisions since City first embarked on the long-range planning process and it is currently going through additional revisions and change so it is not appropriate to base a consistency analysis. Instead, the consistency of the proposed Project has been compared to the existing General Plan. It is noted, however, that the General Plan Update, in its current form, does not propose any changes to the Northwest Airport Master Plan area, for which the proposed Project is located. As such, there is nothing provided in the draft General Plan Update that would suggest that there is an inconsistency with the proposed Project, or the Master Plan as a whole. The proposed Project is consistent with the current Draft General Plan Update.

It is also noted that the proposed Project's consistency with the SJCOG RTP/SCS is addressed on page 69 of the Initial Study, which concludes that the RTP/SCS includes the

Northwest Airport Way Master Plan in their population and employment projections, and VMT increases associated with buildout of the City of Manteca. It is noted that the land use and circulation model that the SJCOG has established for their RTP/SCS is based on the Project site, and Master Plan area as a whole, being developed with the same industrial development that has been anticipated on the site for over 10 years. The land use and circulation patterns drive the development of the RTP/SCS action and financing plan. There is not anything that is proposed that is inconsistent with the RTP/SCS. The proposed Project is consistent with the RTP/SCS.

Finally, the proposed Project is not a residential project, and therefore the City's Growth Management Ordinance is not applicable to light industrial projects. The Growth Management Ordinance is only appliable to residential developments.

The City's periodically updates their list of ongoing commercial and industrial projects. The City's most current list of these projects can be found at the following link: https://www.ci.manteca.ca.us/CommunityDevelopment/Planning%20Division/gpstatus/Documents/Commercial_Projects_2016-2020_24x36.pdf

Response C-8: This commenter provides a set of comments regarding the "Population and Housing" analysis.

The proposed Project is estimated to generate approximately 342 employees. The proposed Project trip generation analysis was based on having 342 employees on-site per day, or approximately 1 employee per 1,053 gross square feet for the proposed Project. Not all employees would live and work in the City of Manteca. Employees are projected to live in several communities in the San Joaquin County, including Manteca, Lathrop, Ripon, Stockton and other unincorporated areas of San Joaquin County. It is not anticipated that people would commute to this job from areas outside the region. It is common for residents of the City of Manteca and surrounding communities in San Joaquin County to commute to higher paying jobs located in the San Francisco Bay Area which has a higher cost of living and higher paying jobs. However, it is not common that people living in the Bay Area with higher costs of living would commute to Manteca for a job in a warehouse that pays considerably lower than jobs in the Bay Area. For these reasons, it is anticipated that the warehouse jobs provided by this Project would come from residents in Manteca or the immediately surrounding communities.

The land uses for the Project site have been established for over a decade. SJCOG develops their projections based on long range planning documents from the communities that they serve. For instance, the growth projections that SJCOG establishes for Manteca are derived from the City of Manteca General Plan, Master Plans, etc. The proposed Project is part of the Northwest Airport Master Plan, which is known by SJCOG and is assumed within their growth projections. The Northwest Airport Way Master Plan EIR anticipated employment growth of 2,588 jobs over the 15-year Master Plan. The total employees generated by the proposed Project is well within the assumptions of the

Master Plan. The Master Plan, as an approved project, was accounted for in the City's Household and Employment projections.

Separately, the commentor states that the claim that "The Project site is currently vacant and does not contain housing. The proposed Project would not displace housing or people," (as stated in Section XIV: Population and Housing of the IS/MND) is contradictory to the statement made in the IS/MND Project Description, which states that "A rural residence is located in the northeastern quadrant." Based on this comment, the Final IS/MND has been revised to identify the housing located within the Project site. The impact for the Population and Housing topic impact b) has been revised to a "less than significant" impact determination, from a "no impact" significance determination. Despite this revision, this revision to the Final IS/MND does not cause a potentially significant impact.

Response C-9: This commenter provides a set of comments regarding the "Transportation" analysis.

The Traffic Impact Analysis prepared by Fehr & Peers for the Project utilized a blended trip rate for warehouse industrial land uses, consistent with the blended trip rates from the *Trip Generation Manual 11th Edition* (Institute of Transportation Engineers, 2021) and the City of Manteca Travel Demand Forecasting (TDF) Model that was developed for the General Plan 2020/2040 Update. Specifically, as was used for other projects such as the nearby GBxManteca project, the blended trip generation rate for the proposed Project utilized the following ITE Land Use Codes and weighted percentages:

- Land Use Code 110: 10%
- Land Use Code 130: 14%
- Land Use Code 150: 16%
- Land Use Code 154: 48%
- Land Use Code 155: 5%
- Land Use Code 156: 4%
- Land Use Code 157: 3%

In addition, as described in the Traffic Impact Analysis, The Baseline VMT and Cumulative Project VMT was developed using the City of Manteca travel demand model that was derived from the San Joaquin Council of Government's (SJCOG) Regional Travel Demand Model. The model was developed in 2020 and calibrated to adjusted pre-COVID-19 traffic counts. Roadway improvements and land use projections consistent with the SJCOG Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), City of Manteca General Plan, and City of Lathrop General Plan were added to the Cumulative Conditions Model. A model-wide analysis was preformed to obtain daily trips and travel distance for all Industrial Transportation Analysis Zones (TAZs), and the product of daily trips and travel distance was summed up to obtain VMT estimates. It should be noted that the VMT analysis was based on Interconnect Way being constructed to provide access to and from Intermodal Way, Roth Road and the I-5 / Roth Road interchange for project-generated California Legal and STAA Truck traffic. The Traffic Impact Analysis

accounted for workers traveling from communities outside of the City of Manteca. Based on this, the Traffic Impact Analysis does not rely on upon a workforce living artificially close to the Project site, as claimed by the commentor.

The Vehicle Miles Traveled (VMT) analysis is consistent with Senate Bill (SB) 743, the *Technical Advisory on Evaluating Transportation Impacts* (December 2018), and the VMT-Focused Transportation Impact Study Guide (May 2020), and includes all passenger cars, SUVs and light duty trucks driven by employees to and from the project site. Consistent with SB 743 technical guidelines, the VMT analysis does not include Delivery, California, or STAA truck / trailer vehicle miles traveled. The analysis contained in Appendix B analyzed VMT per industrial employee consistent with the VMT-Focused Transportation Impact Study Guide.

In addition to the VMT analysis, the Transportation Impact Analysis Report (Appendix B), also included the trip generation analysis which includes both employee vehicles (Table 3) for passenger cars, sport utility vehicles (SUV) and light duty trucks. The trip generation analysis also includes trucks (Table 4) for delivery California, and Surface Transportation Assistance Act (STAA).

The City of Manteca Travel Demand Model used the same transportation planning industry software (Cube) for both Baseline and Cumulative Conditions that the San Joaquin Council of Governments (SJCOG) used for the regional travel demand model. In addition, the same Cube Model is being used for the City of Manteca General Plan and EIR (Manteca General Plan Update). And the land use designation for the proposed Project is consistent with both the currently adopted General Plan and Draft General Plan Update.

The Baseline Citywide VMT per industrial employee was determined by summing the total distance all industrial workers that are employed in the City of Manteca traveled, and dividing this total VMT by the total number of industrial workers. This resulted in the baseline citywide VMT of 75.3 miles per industrial employee and a Cumulative with Project VMT of 74.8 miles per industrial employee. This represents a 0.6% decrease when compared to baseline city-wide average. Therefore, the construction of the proposed Project will improve the jobs to housing balance in the City of Manteca and provide an overall benefit to reducing VMT per employee, fuel consumption and greenhouse gas emissions. The jobs to housing balance is improved by increasing the number of jobs in the City of Manteca. In order to have a less than significant impact relative to this primary CEQA topic, the proposed Project will be required to have all trucks access the facility using Intermodal Way and only employee access will be allowed from Airport Way.

The construction of the Airport Business Centre North Project will provide approximately 342 industrial jobs on a typical weekday, and will improve the jobs to housing balance in Manteca, Lathrop, Ripon, Stockton and other unincorporated areas of San Joaquin County. Also moving the employment closer to the labor force has the overall benefit of reducing VMT per employee by a much larger amount if workers were required to drive the San Francisco Bay Area versus staying in the City of Manteca and San Joaquin County.

It should also be noted that by reducing VMT per employee by a conservative one mile per weekday for each of the 342 employee, fuel consumption would be reduced by approximately 3,420 gallons per year and greenhouse gas emissions would be reduced by approximately 65,224 pounds.

Response C-10: This commenter provides a set of comments regarding the "Mandatory Findings of Significance" analysis.

As stated by the commenter, the City of Manteca maintains a list of ongoing commercial and industrial projects. All City documents, including a list of ongoing commercial and industrial projects, can be found on the City's website (https://www.ci.manteca.ca.us/CommunityDevelopment/Planning%20Division/gpstatus/Documents/Commercial_Projects_2016-2020_24x36.pdf), or in person at the City Hall. The list in question has been included as an Appendix in the Final IS/MND.

The suggestion that an EIR must be prepared that includes a cumulative analysis in relation to the City's growth management requirements underscores the commenters misunderstanding of the City's growth management requirements. The City's growth management requirements are specific to residential projects, which drive new residents living in the city limits of Manteca. The proposed Project does not generate any new homes, and therefore, does not directly result in population growth. Instead, page 107 of the Initial Study accurately reflects the City's expectation that jobs created would be served by residents of Manteca and surrounding communities. It is not reasonable to assume that people would commute to work in this warehouse from communities outside communities that are in the regional vicinity. As noted under Response C-8, it is common for residents of the City of Manteca and surrounding communities in San Joaquin County to commute to higher paying jobs located in the San Francisco Bay Area which has a higher cost of living and higher paying jobs. However, it is not common that people living in the Bay Area with higher costs of living would commute to Manteca for a job in a warehouse that pays considerably lower than jobs in the Bay Area. For these reasons, it is anticipated that the warehouse jobs provided by this Project would come from residents in Manteca or the immediately surrounding communities.

It is also noted that the certified EIR for the Northwest Airport Master Plan included a cumulative analysis of buildout of the parcels within the Master Plan Area, which included the Project site. The full Draft and Final EIR can be viewed on the City's website at the following link:

https://www.ci.manteca.ca.us/CommunityDevelopment/Planning%20Division/Pages/Planning-Division-Documents.aspx?RootFolder=%2FCommunityDevelopment%2FPlanning%20Division%2FPlanning%20Division%20Documents%2FMaster%20And%20Specific%20Plans%2FNorthwest%20Airport%20Way%20Master%20Plan&FolderCTID=0x012000C1D839DE3D407540A4D0E9B464C9237D&View=%7BC6EEA1A9%2D842B%2D49CD%2D94D1%2DE0D08910FEFD%7D.

The cumulative analysis considered the new development relative to anticipated growth in the region. The Northwest Airport Master Plan was approved approximately 12 years ago, and has since been anticipated within all regional planning documents including the City of Manteca's General Plan, and SJCOG's Regional Transportation Plan/Sustainable Communities Strategy. In addition to these relevant long-range planning documents, development of the Northwest Airport Master Plan area has been well known by the San Joaquin County Local Agency Formation Commission, the Cities of Lathrop, Stockton, Ripon, and Tracy, and the County and San Joaquin.

The City of Manteca recognizes that the certified EIR for the Northwest Airport Master Plan includes conclusions where significant and unavoidable impacts would occur as the Master Plan develops. The City has not changed, nor do they suggest, that the significant and unavoidable conclusions should or will change as a result of any individual project within the Master Plan area, including the proposed Project. This holds true for direct, indirect, and cumulative impacts. The City has adopted statement of overriding considerations for those significant and unavoidable impacts as part of the original certification of the Northwest Airport Master Plan EIR, and the proposed Project contributes to the impacts disclosed under the original certified EIR. All mitigation measures from the Northwest Airport Way Master Plan EIR are applicable to the proposed Project, and have been incorporated into the Initial Study on pages 7-13. (Table PD-1) For this second tier CEQA document, however, the City has followed the statutory requirements for analyzing individual projects developed within an already approved Project for which an EIR is certified. More specifically, the analysis in the Initial Study is focused on the "New Information" that is now known, that was not, or could not have been known at the time the original analysis was performed. The most significant new information is the VMT analysis, which is a new requirement based on a change in state law. The VMT analysis provided on pages 122-125 of the Initial Study further describes that there would be a less than significant impact from VMT.

There is no evidence that the proposed Project would have new significant impacts that have not already been addressed by the first tier EIR. The City requires all individual projects within the Northwest Airport Master Plan to implement mitigation measures and conditions of approve adopted as part of the Northwest Airport Master Plan to reduce impacts to the extent possible. All of the previously adopted mitigation measures and conditions of approved are in effect for the proposed Project.

Response C-11: This comment serves as a closing statement for the commenter. The commenter requests to be included on a list to receive subsequent information regarding this project.

This comment is noted. The City has added the commenter to the list for this project.

Response C-12: This comment serves as an introduction to a letter that was attached to the main commenter's letter. The comment suggests that the IS/MND does not adequately evaluate the proposed Project's air quality and health risk impacts. Being an introduction, this specific comment does not provide any supporting evidence, rather, their arguments

are provided in subsequent comments. The introduction does not warrant a response. All subsequent comments are addressed subsequently in the following responses.

Response C-13: The commentor states that there are unsubstantiated input parameters used to estimate project emissions. The commentor states that the IS/MND's air quality analysis relies on emissions calculated with CalEEMod. The commentor states that they found several model inputs that were not consistent with the information disclosed in the IS/MND. The commentor then states that, therefore, the proposed Project's construction and operational emissions are underestimated. The commentor states that an EIR should be prepared to include an updated air quality analysis to adequately address the impacts that Project construction and operation will have on local and regional air quality.

This comment is noted. This comment is a general comment that lacks specificity, instead, this comment serves as a preface to more detailed individual comments provided under Comments C-14 through C-20. Based on comments received, more detailed responses to the individual input parameters identified by the commentor for each of the Comments C-14 through C-20 are provided in the responses below. The modeling uses defaults where more specific details are not available, as recommended by CalEEMod.[3] CalEEMod utilizes default data that can be used when site-specific information is not available. Users of CalEEMod are required to provide justifications for all changes made to the default values (see the CalEEMod v.2020.4.0 User's Guide for more detail). The user may only override the defaults when more accurate, project-specific information is available and appropriate. Where more specific information was available and appropriate (with substantial evidence), the defaults were overridden with the specific information. The updated emissions outputs do not change any impact conclusions. It is also noted, that through the initiation of Rule 9510 review with the Air District, the Air District performs their own modeling. That modeling is consistent with the model included in the Final IS/MND. See below for individual responses to the individual comments, in the responses to Comments C-14 through C-20, below.

Response C-14: The commentor states that the CalEEMod modeling fails to consider potential cold storage requirements. However, the proposed Project would not include any cold storage. Rather, as provided in the IS/MND Project Description, the facility will operate as a distribution warehouse. The warehouse would not be refrigerated. That is, the Project would not contain any refrigerated warehouse space whatsoever. Should any development occur on-site that would include any refrigerated warehouse space, additional CEQA analysis would be required. No further response to this comment is warranted.

Response C-15: This commenter states that there were unsubstantiated changes to area coating emission factors. Specifically, the commentor states that there were several reductions within the

[3] See the CalEEMod v.2020.4.0 User's Guide for more detail. Available at: http://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/01_user-39-s-guide2020-4-0.pdf?sfvrsn=6

CalEEMod model to the default area and architectural coating (interior) emission factors. Specifically, the commentor identifies the changes to the operational architectural and area coating ROG emission factors for interior coatings from 150 g/L of to 0 g/L.

Architectural coatings for the interior of the proposed Project building would have 0 g/L VOCs, since the Project does not contain interior coatings. Therefore, the usage of a 0 g/L of ROG emission factor for interior coatings in the CalEEMod model is supported by substantial evidence, since no architectural coatings would be applied to the interior of the Project. No further response to this comment is warranted.

Response C-16: The commentor states that there was a failure to substantiate the amount of soil import or export. While grading would occur on-site, the use of import (fill) and export (cut) is not anticipated; the grading of soils would be balanced on-site. This is because the Project site is relatively flat. The Project site has been previously used for agricultural purposes, and therefore has been previously graded. As stated in the IS/MND Project Description, the project site is generally flat, with an elevation range of approximately 22 to 25 feet. No further response to this comment is warranted.

Response C-17: The commentor states that, in an effort to prepare a more accurate model of the Project's construction-related emissions, the commentor prepared an updated CalEEMod model. According to their revisions to the model, the commentor claims that construction-related VOC emissions would exceed the applicable Air District threshold.

This comment is noted. However, we do not agree with the changes made to the model by the commentor. For example, we do not agree with the changes to the vehicle fleet mix and the exclusion of mobile- and water-related operational mitigation measures, as the commentor describes as having changed. Further detail is provided in Responses C-14 through C-16, and Response C-18 through C-20. No further response to this comment is warranted.

Response C-18: The commentor states that the diesel particulate matter health risk emissions were inadequately evaluated. Specifically, the commentor requests a quantified health risk analysis ("HRA") be conducted.

As provided in the IS/MND, the proposed Project has the potential to impact nearby sensitive receptors during the construction and operational phases. Specifically, the proposed Project has the potential to generate DPM from on- and off-road construction vehicles, during the construction phase. In addition, the proposed Project has the potential to impact nearby sensitive receptors during operation, due to the proposed Project's generation of trips by heavy-duty diesel trucks, which are also an emitter of DPM. In particular, DPM during Project operation is emitted from on-site heavy-duty truck vehicle circulation and idling, and off-site mobile travel. Combined, these sources of DPM (both construction and operational) have the potential to generate TACs on nearby sensitive receptors, including those located nearest to the Project site. Both sources of

DPM (both construction and operational) were addressed in the IS/MND, and is described in further detail below.

The SJVAPCD has established a screening calculator entitled the "Prioritization Calculator". An estimate of DPM emissions generated by the heavy-duty trucks and delivery vans associated with the proposed Project during Project operation was calculated for on-site mobile and idling emissions, and off-site mobile emissions 0.25 miles from the Project site, combined with the exhaust DPM emissions from both on- and off-road vehicles during the Project's construction phase, amortized over 70 years, in accordance with the California Office of Environmental Health Hazard Assessment (OEHHA) guidance, as recommended by the SJVAPCD. The estimate of DPM emissions was based on the data provided in the Transportation Analysis for the proposed Project, and with diesel particulate matter mobile emission rates from CARB's EMFAC2021 database (for year 2022, San Joaquin County; emission rates for DPM; 10 MPH for on-site truck travel and 55 MPH for off-site truck travel), and from standard heavy-duty truck idling emission rates from CARB.

As described on pages 40 and 41 of the IS/MND, the results of the screening analysis show that the cancer and non-cancer risks associated with the proposed Project are below the SJVAPCD screening thresholds contained within their Prioritization Calculator. Specifically, the Prioritization Calculator estimates that the prioritization score associated with total cancer risk from proposed project operational DPM would be approximately 4.62, and from construction DPM 1.58[4], for a total of 6.20, well below the SJVAPCD threshold of 10 that would require development of air toxics Health Risk Assessment (HRA) that includes air dispersion modeling. Additionally, non-cancer (i.e. chronic and acute risks) associated with project DPM would also be well below the applicable thresholds for the Maximally Exposed Individual (i.e. greater than or equal to the Hazard Index level of 1). Therefore, the complex air dispersion modeling using software such as AERMOD is not required. See Appendix B of the IS/MND for further detail.

Therefore, a full HRA is not required for the proposed Project, since the proposed Project's screening level is below the applicable SJVAPCD thresholds within their Prioritization calculator. See Appendix B of the IS/MND for further detail.

Response C-19: The commentor states they conducted a screening-level assessment using AERSCREEN. Based on the commentor's analysis, the commentor states that they calculated that excess cancer risk over the course of a residential lifetime (30 years) is approximately 50.8 in one million, which would exceed the SJVAPCD threshold of 20 in one million.

This comment is noted. However, the analysis provided by the commentor is overly conservative. The commentor even describes that their analysis represents a screening-

[4] It should be noted that construction-generated sources of DPM emissions would be greater than 100 meters from the nearest sensitive receptor, on average, as measures by Google Earth.

level HRA, which is known to be conservative and tends to err on the side of health protection.

As described in detail under Response C-18, the SJVAPCD has established a screening calculator entitled the "Prioritization Calculator", which was specifically designed to be the screening approach for projects within the jurisdiction of the SJVAPCD. As described on pages 40 and 41 of the IS/MND, the results of the screening analysis show that the cancer and non-cancer risks associated with the proposed Project are below the SJVAPCD screening thresholds contained within their Prioritization Calculator. Therefore, the complex air dispersion modeling using software such as AERSCREEN or AERMOD is not required. See Appendix B of the IS/MND for further detail.

As described also under Response C-18, a full HRA is not required for the proposed Project, since the proposed Project's screening level is below the applicable SJVAPCD thresholds within their Prioritization calculator. See Appendix B of the IS/MND for further detail. No further response to this comment is warranted.

Response C-20: The commentor states that the Project should implement further mitigation. The commentor provides additional sample mitigation, including SCAG's 2020 RTP/SCS PEIR's Air Quality Project Level Mitigation Measures ("PMM-AQ-1"), as well as mitigation measures that can be found in the Department of Justice Warehouse Project Best Practices document, as well as other mitigation measures. The commentor also reiterates their recommendation that an EIR should be prepared for the Project.

This comment is noted. As provided within the IS/MND, no impacts were determined to have a "potentially significant impact". Therefore, additional mitigation beyond what was included in the IS/MND is not required; further, an EIR is also not required. No further response to this comment is warranted.

Response C-21: This comment serves as a disclaimer, closing statement. This comment also includes resumes of two individuals responsible for preparing the letter. No response is warranted.

Water Boards

GAVIN NEWSOM, Governor

YANA GARCIA, Secretary for Environmental Protection

Central Valley Regional Water Quality Control Board

3 November 2022

Mallorie Fenrich
City of Manteca
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COMMENTS TO REQUEST FOR REVIEW FOR THE MITIGATED NEGATIVE DECLARATION, AIRPORT BUSINESS CENTRE NORTH PROJECT, SCH#2022100047, SAN JOAQUIN COUNTY

Pursuant to the State Clearinghouse's 4 October 2022 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Mitigated Negative Declaration* for the Airport Business Centre North Project, located in San Joaquin County.

D-1

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

I. Regulatory Setting

Basin Plan

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

D-2

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

Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

D-2 Cont'd

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:
https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

D-3

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

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

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

D-4

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

D-5

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

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

Clean Water Act Section 404 Permit
If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

D-6

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

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

https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

Waste Discharge Requirements – Discharges to Waters of the State
If USACE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at:https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

D-6 Cont'd

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources Control Board website at:
https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf

Dewatering Permit
If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

D-7

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at:
https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf

Limited Threat General NPDES Permit
If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will

require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

D-7 Cont'd

NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/help/permit/

D-8

If you have questions regarding these comments, please contact me at (916) 464-4684 or Peter.Minkel2@waterboards.ca.gov.

Peter Minkel

Peter Minkel
Engineering Geologist

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

Response to Letter D: Central Valley Regional Water Quality Control Board

Response D-1: This comment is noted. This comment serves as an introduction to the letter and does not warrant a response. No further response is necessary.

Response D-2: The comment provides background information regarding the responsibilities of the Central Valley Regional Water Quality Control Board (RWQCB). This information further elaborates on regulatory information regarding the Water Quality Control Plan for the Central Valley Region (Basin Plan), which is the guiding document for water quality and sustainable groundwater management in the region. Hydrology and Water Quality is discussed on pages 66 through71 of the Initial Study, and in Section 3.8 of the Draft EIR for the Northwest Airport Way Master Plan. No further response is necessary.

Response D-3: The comment provides information regarding "Antidegradation Considerations," including the Basin Plan's policy and analysis requirements for National Pollutant Discharge Elimination System (NPDES) and Waste Discharge Requirement (WDR) permitting. Hydrology and Water Quality is discussed on pages 66 through71 of the Initial Study, and in Section 3.8 of the Draft EIR for the Northwest Airport Way Master Plan. Mitigation Measures HYD-1, HYD-2, and HYD-4 for the Northwest Airport Way Master Plan are aimed at reducing water quality impacts. The proposed Project is subject to the requirements of the NPDES and WDR, which are existing regulatory requirements. No further response is necessary.

Response D-4: The comment identifies construction storm water permit requirements for projects that disturb one or more acres of soil or are part of a larger plan that in total disturbs one or more acres of soil. These are regulatory requirements that require the Project Applicant to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. To do so, the applicant(s) must prepare a Project-specific Stormwater Pollution Prevention Plan (SWPPP), which would incorporate BMPs in order to prevent or reduce to the greatest extent feasible adverse impacts to water quality from erosion and sedimentation. Mitigation Measure HYD-1 specifically requirements the preparation of a SWPPP and implementation of BMPs. The proposed Project would comply with the General Construction Stormwater Permit from the Central Valley RWQCB.

Response D-5: The comment identifies construction storm water permit requirements MS4 permit requirements. The City is classified as a Phase II city by the State Water Resources Control Board. As such, the City, and consequently new development, is required to comply with the State Board's storm water National Pollutant Discharge Elimination System (NPDES) permit for Phase II cities.

Response C-6: This comment discusses requirements of Section 404 and 401 of the federal Clean Water Act, and discharges to Waters of the State. As discussed on page 40 of the Initial Study,

the Project site does not have any jurisdictional waters and is not subject to these permit requirements.

Response D-7: This comment discusses dewater permit requirements. Dewatering is not anticipated to be required as a result of construction of the proposed Project. However, should groundwater be encountered during construction and dewatering become necessary, the applicant would be required to seek the proper NPDES permit for dewatering activities.

Response D-8: This comment discuses NPDES permits, and the preparation of Waste Discharge Reports. These are regulatory requirements that require the Project Applicant operating under a NPDES permit to complete and submit a report of Waste Discharge to the Central Valley RWQCB. The proposed Project is required to comply with these requirements.