INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

FOR THE

MAIN STREET WIDENING

August 2020

Prepared for:

City of Manteca
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

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A Land Use Planning, Design, and Environmental Firm

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Proposed Mitigated Negative Declaration for the Main Street Widening

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

Project Title: Main Street Widening

Project Location: The Main Street Widening project site (project site) is located on approximately four blocks of the existing Main Street right-of-way in the downtown area of the City of Manteca. Main Street is a north-south roadway classified as a Main Street arterial. The site is bound by Alameda Street to the north, Yosemite Avenue to the south, and the existing sidewalks along Main Street on the east and west.

Project Description: The City of Manteca proposes to develop the Main Street Widening project, (project, proposed project, proposal, or Main Street Widening). The proposed project includes roadway improvements to the existing Main Street right-of-way from Yosemite Avenue to Alameda Street by replacing the existing concrete right-of-way with pavers and adding two new travel lanes to help reduce traffic congestion and delay during peak hours. The proposed project would remove the existing 79 on-street parking spaces and six landscaped planters within the right-of-way to reduce the existing travel lanes to 10-feet and add an additional 10-foot travel lane in each direction. The proposed project would also replace the existing landscaped medians between Yosemite Avenue and Center Street with two 10-feet wide paved medians to guide traffic into the appropriate left turn lanes at the Yosemite Avenue/Main Street and Center Street/Main Street intersections.

Pedestrian safety along the corridor would be improved with new curb ramps that meet current standards and improved crosswalk markings at the intersections of Center Street/Main Street, North Street/Main Street, Sutter Street/Main Street, and Alameda Street/Main Street. However, at the Alameda Street and Main Street intersection, the proposed project would only improve the southwest and southeast curbs and crosswalk markings between these two curbs. To accommodate the additional lanes, existing traffic signals would be replaced. The proposed project would also improve the existing storm drain infrastructure by replacing the existing storm drains with a french drain on both sides of the roadway that connects to existing catch basins. Additionally, the existing catch basins at the intersection of Center Street and Main Street would be upgraded to meet current standards. It should be noted that no improvements to the existing sidewalk, light poles, or other utility infrastructure are anticipated at this time.

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.

CULTURAL RESOURCES

Mitigation Measure CLT-1: *If cultural resources (i.e., prehistoric sites, historic sites, isolated artifacts/features, and paleontological sites) are discovered during construction, work shall be halted immediately within the area of the discovery, the City of Manteca shall be notified, and a qualified archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology (or a qualified paleontologist in the event paleontological resources are found) shall be retained to determine the significance of the discovery. The City of Manteca shall consider recommendations presented by the professional for any unanticipated discoveries and shall carry out the measures deemed feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. Specific measures are developed based on the significance of the find.*

Mitigation Measure CLT-2: *Pursuant to State Health and Safety Code §7050.5 (c) State Public Resources Code §5097.98, if human bone or bone of unknown origin is found during construction, all work shall stop in the vicinity of the find and the San Joaquin County Coroner shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission who shall notify the person believed to be the most likely descendant. The most likely descendant shall work with the contractor to develop a program for reinternment of the human remains and any associated artifacts. Additional work is not to take place within the immediate vicinity of the find until the identified appropriate actions have been implemented.*

GEOLOGY AND SOILS

Mitigation Measure GEO-1*: The project applicant shall submit a Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) to the RWQCB in accordance with the NPDES General Construction Permit requirements. The SWPPP shall be designed to control pollutant discharges utilizing Best Management Practices (BMPs) and technology to reduce erosion and sediments. BMPs may consist of a wide variety of measures taken to reduce pollutants in stormwater runoff from the project site. Measures shall include temporary erosion control measures (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) that will be employed to control erosion from disturbed areas. Final selection of BMPs will be subject to approval by the City of Manteca and the RWQCB. The SWPPP will be kept on site during construction activity and will be made available upon request to representatives of the RWQCB.*

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INITIAL STUDY CHECKLIST

PROJECT TITLE

Main Street Widening 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

Alfredo Mijango, Assistant Engineer
City of Manteca – Engineering Division of the Public Works Department
1001 W. Center Street
Manteca, CA 95337
(209) 456-8422
amijango@ci.manteca.ca.us

PURPOSE OF THE INITIAL STUDY

An Initial Study (IS) is a preliminary analysis, which is prepared to determine the relative environmental impacts associated with a proposed project. It is designed as a measuring mechanism to determine if a project will have a significant adverse effect on the environment, thereby triggering the need to prepare an Environmental Impact Report (EIR). It also functions as an evidentiary document containing information, which supports conclusions that the project will not have a significant environmental impact or that the impacts can be mitigated to a "Less Than Significant" or "No Impact" level. If there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, the lead agency shall prepare a Negative Declaration (ND). If the IS identifies potentially significant effects, but: (1) revisions in the project plans or proposals would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and (2) there is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment, then a Mitigated Negative Declaration (MND) shall be prepared.

This Initial Study has been prepared consistent with CEQA Guidelines Section 15063, to determine if the proposed Main Street Widening (project) may have a significant effect upon the environment. Based upon the findings and mitigation measures contained within this report, a Mitigated Negative Declaration (MND) will be prepared.

PROJECT LOCATION AND SETTING

The Main Street Widening project site (project site) is located on approximately four blocks of the existing Main Street right-of-way in the downtown area of the City of Manteca. Main Street is a north-south roadway classified as a Main Street arterial. The typical characteristics of a Main Street arterial is to provide access to all travel modes including on-street parking and wide sidewalks to support primary retail, mixed-use, or recreation uses. The site is bound by Alameda Street to the north, Yosemite Avenue to the south, and the existing sidewalks along Main Street

on the east and west. The project site is generally flat, with an elevation range for the entire project site of approximately 35 to 40 feet above sea level.

The existing roadway includes one 11-foot travel lane in each direction with an 11-foot center turn lane, 79 on-street parking spaces, and 5.5-foot sidewalks. Additionally, the existing roadway from Yosemite Avenue to Center Street currently contains two landscaped medians with various trees and shrubbery, as well as six landscaped planters that bulb out into the right-of-way to designate on-street parking spaces. The remaining stretch of roadway from Center Street to Alameda Street does not contain any landscaping within the sidewalks or right-of-way.

See Figure 1 for the regional location and Figure 2 for the site location and project vicinity.

PROJECT DESCRIPTION

The proposed Main Street Widening project (proposed project) would improve the existing Main Street right-of-way from Yosemite Avenue to Alameda Street by replacing the existing concrete right-of-way with pavers and adding two new travel lanes to help reduce traffic congestion and delay during peak hours.

The proposed project would remove the existing 79 on-street parking spaces and six landscaped planters within the right-of-way to reduce the existing travel lanes to 10-feet and add an additional 10-foot travel lane in each direction. The proposed project would also replace the existing landscaped medians between Yosemite Avenue and Center Street with two 10-feet wide paved medians to guide traffic into the appropriate left turn lanes at the Yosemite Avenue/Main Street and Center Street/Main Street intersections. Pedestrian safety along the corridor would be improved with new curb ramps that meet current standards and improved crosswalk markings at the intersections of:

- Center Street and Main Street;
- North Street and Main Street;
- Sutter Street and Main Street; and
- Alameda Street and Main Street.

However, at the Alameda Street and Main Street intersection, the proposed project would only improve the southwest and southeast curbs and crosswalk markings between these two curbs. To accommodate the additional lanes, existing traffic signals would be replaced. The proposed project would also improve the existing storm drain infrastructure by replacing the existing storm drains with a french drain on both sides of the roadway that connects to existing catch basins. Additionally, the existing catch basins at the intersection of Center Street and Main Street would be upgraded to meet current standards. It should be noted that no improvements to the existing sidewalk, light poles, or other utility infrastructure are anticipated at this time.

See Figure 3 for the site plan for the proposed project.

GENERAL PLAN AND ZONING DESIGNATIONS

The project site is a public right-of-way and therefore, does not have a General Plan Land Use or Zoning designation. All the adjacent parcels to project site are designated Neighborhood Commercial (NC) except for one parcel which is designated as Public/Quasi-Public (P/QP). According to the City of Manteca 2023 General Plan, the NC designation provides for locally oriented retail and service uses, offices, restaurants, and service stations and the P/QP

designation provides for government owned facilities, public and private schools, and civic and public utility uses.

With respect to zoning, the parcels along Main Street located south of North Street are all zoned Central Business District (CBD) while the parcels north of North Street are zoned Mixed Use Commercial (CMU) with one parcel zoned Planned Development (PD).

The existing General Plan land uses and the zoning designations of the properties adjacent to the project site are shown on Figure 4.

REQUESTED ENTITLEMENTS AND OTHER APPROVALS

The City of Manteca is the Lead Agency for the proposed project, pursuant to the State Guidelines for Implementation of CEQA, 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.

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;

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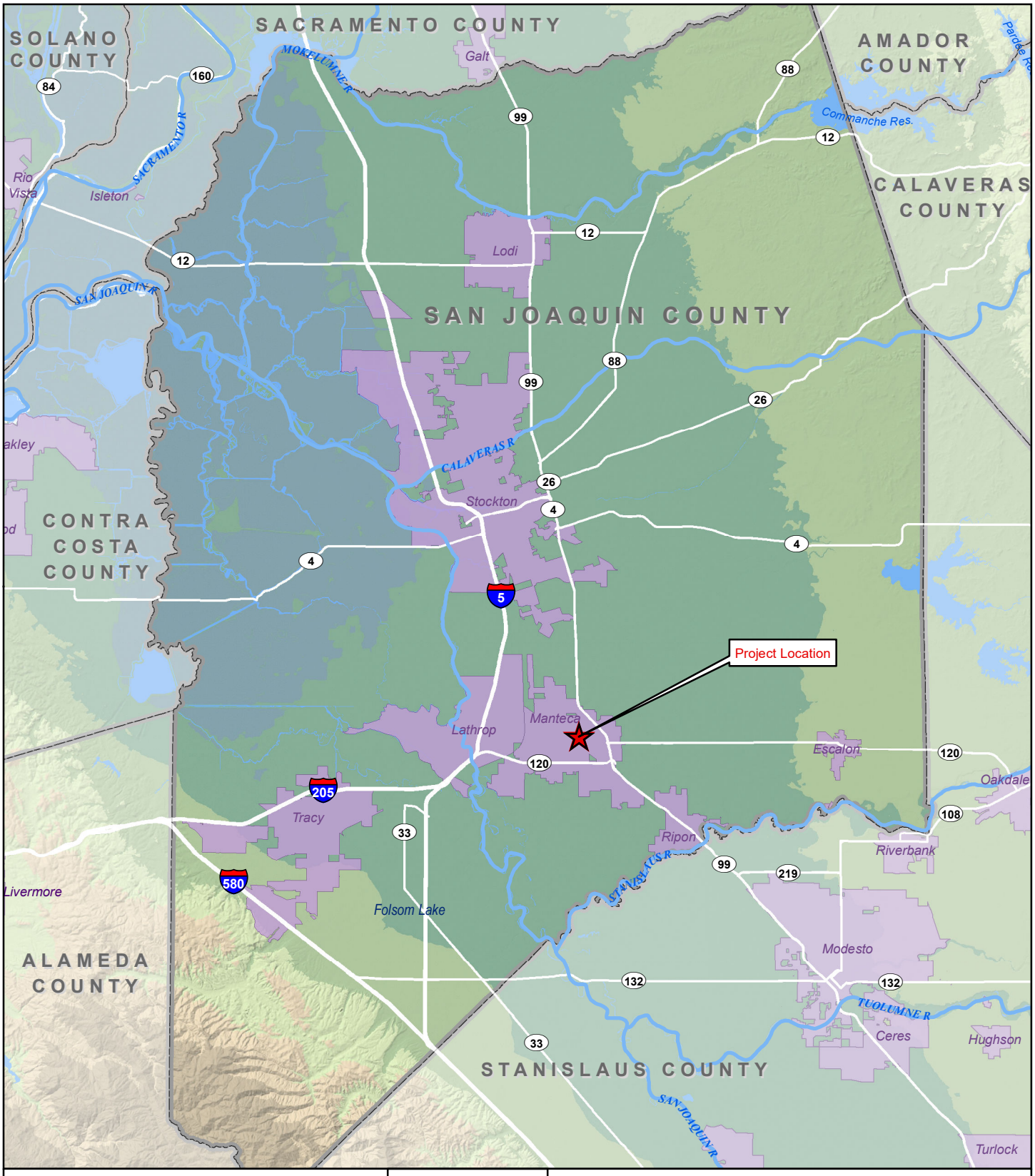

Legend

- Project Location
- County Boundary
- City Area

Sources: CalAtlas; California County GIS Departments. Map date: July 1, 2020.

N

0 2½ 5

Miles

CITY OF MANTECA MAIN STREET WIDENING

Figure 1. Regional Location Map

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Legend

- Project Location
- City of Manteca
- Unincorporated San Joaquin County
- School
- Park
- Tidewater Park/Bikeway
- Police Station
- City of Manteca Fire Department

Sources: San Joaquin County GIS; Google Maps. Map date: July 1, 2020.

N

0 1,000 2,000

Feet

CITY OF MANTECA MAIN STREET WIDENING

Figure 2. Vicinity Map

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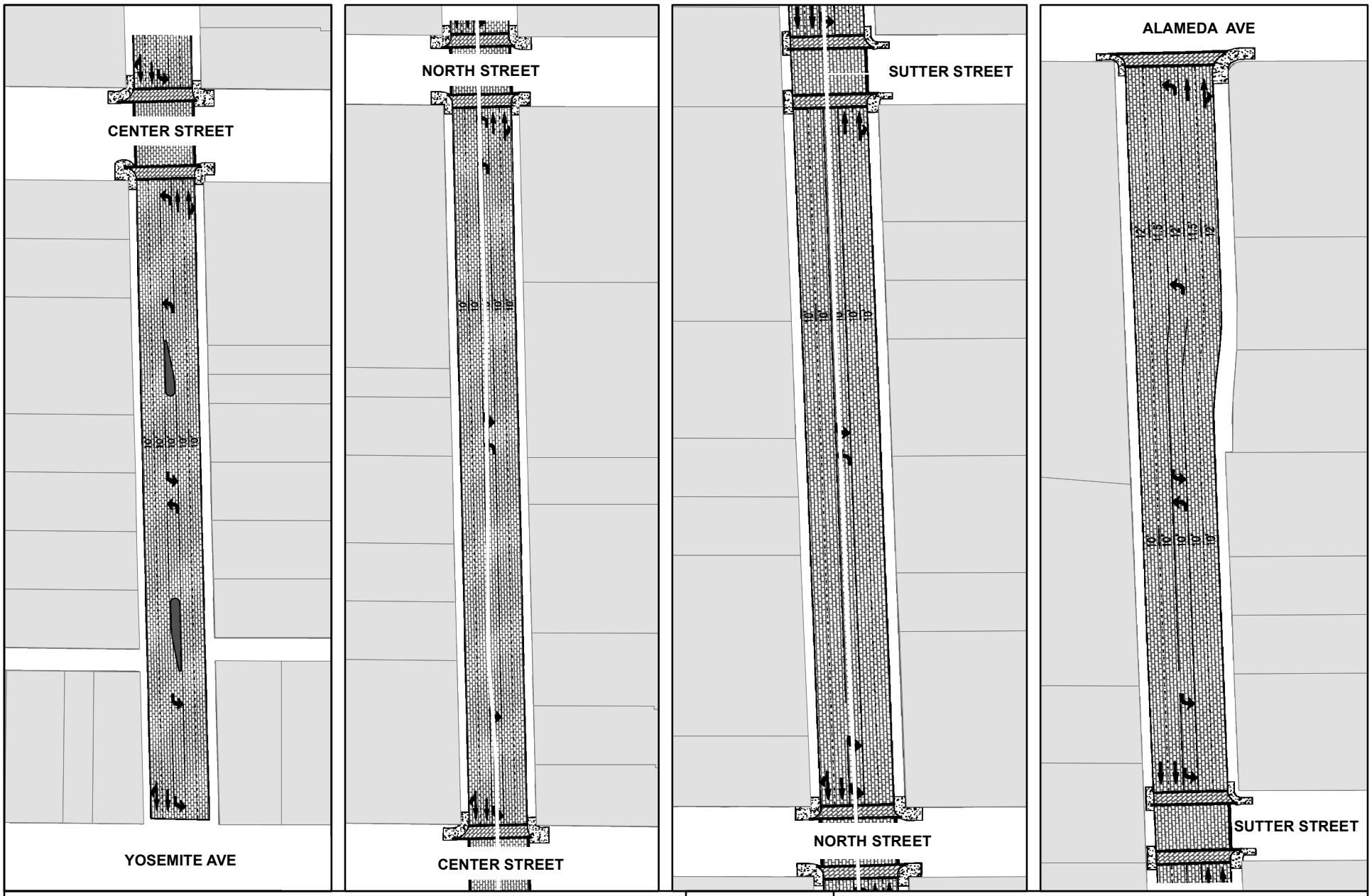

Legend

Assessor Parcel

0 50 100

Feet

Source: City of Manteca Department of Public Works, 6/12/2020. Map date: July 1, 2020.

CITY OF MANTECA MAIN STREET WIDENING

Figure 3. Site Plan

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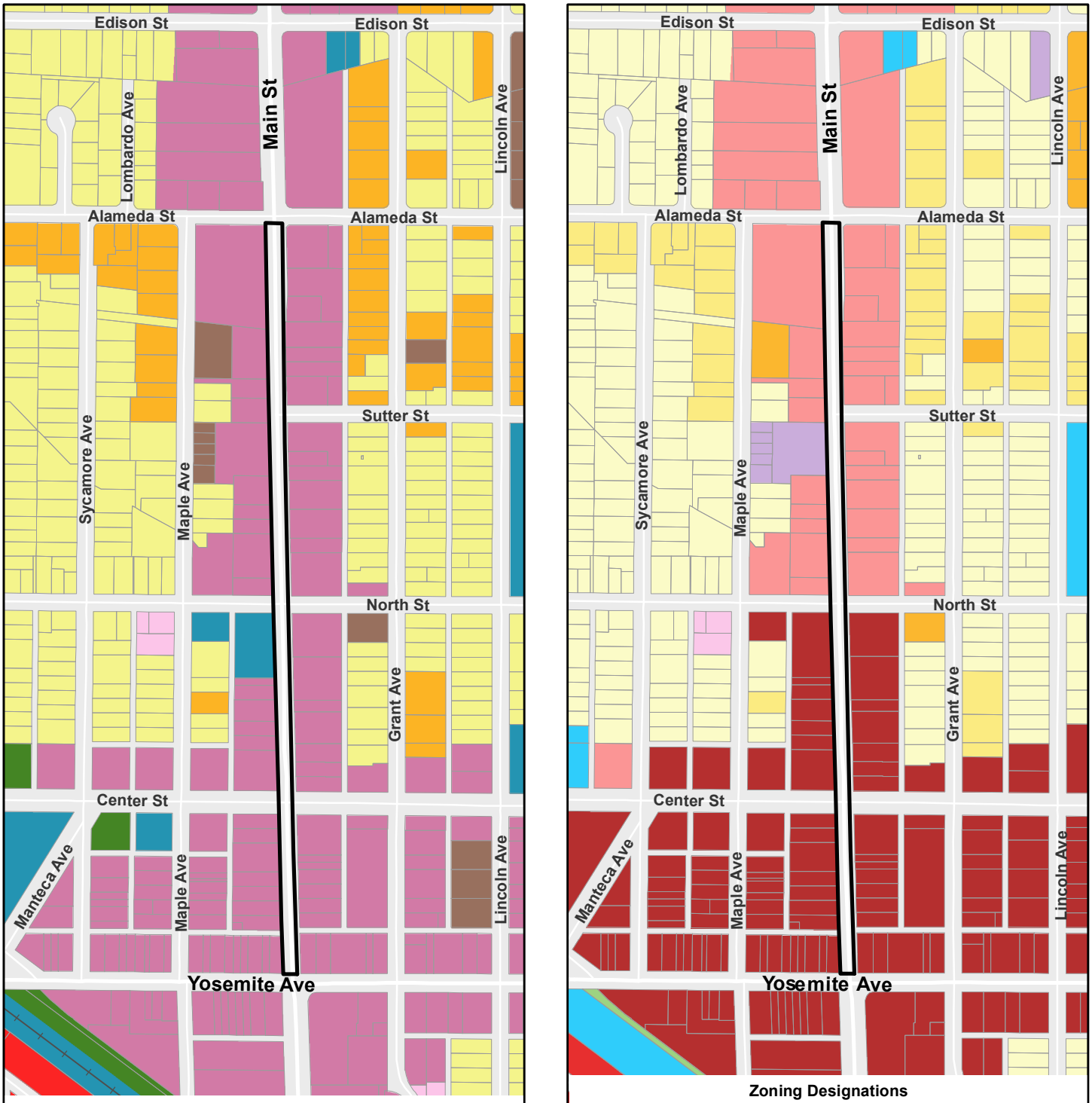
Edison St
Edison St
Lombardo Ave
Main St
Lincoln Ave
Alameda St
Alameda St
Sycamore Ave
Maple Ave
Sutter St
North St
Grant Ave
Center St
Manteca Ave
Maple Ave
Lincoln Ave
Yosemite Ave
General Plan Land Use Designations
NC - Neighborhood Commercial
CMU - Commercial Mixed Use
GC - General Commercial
LDR - Low Density Residential
MDR - Medium Density Residential
HDR - High Density Residential
P - Park
PQP - Public/Quasi-Public
Zoning Designations
R1 - One Family Dwelling
R2 - Limited Multiple-Family Dwelling
R3 - Multiple-Family Dwelling
CG - General Commercial
CMU - Mixed Use Commercial
CN - Neighborhood Commercial
CBD - Central Business District
P - Park
PD - Planned Development
PQP - Public/Quasi-Public
Legend
Project Boundary
Assessor Parcel Boundary
N
0
250
500
Feet
Sources: City of Manteca; San Joaquin County. Map date: July 1, 2020.
CITY OF MANTECA MAIN STREET WIDENING
Figure 4. General Plan Land Use and Zoning Designations
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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 proposed project will not significantly disrupt middleground or background views from public viewpoints. Moreover, the proposed project would not result in noticeable changes to the foreground views from the public viewpoint, since the proposed project is an infrastructure/roadway project. Upon build-out, the project would be of similar or better visual character to nearby and adjacent developments (such as existing roadways and Neighborhood Commercial uses nearby). For motorists travelling along nearby roadways, the project would blend into existing and future development and would not present unexpected or otherwise

unpleasant aesthetic values within the general project vicinity. Therefore, implementation of the proposed project would have a ***less than significant*** impact relative to this topic.

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 street lighting, which would not be impacted by the street widening. As part of the project, traffic signals at intersections would be replaced to accommodate the additional travel lanes. There is a potential for the proposed project to create new sources of light, but would not substantially increase ambient light levels. Examples of lighting would include construction lighting, and street lighting. However, nighttime construction activities are not anticipated to be required as part of on-site roadway construction. Operational light sources from street lighting may be required to provide for safe travel. 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. 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

Responses a), b): The project site includes only Urban and Built-Up land, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency (California Department of Conservation, 2018). Additionally, the project site is an existing right-of-way and therefore, is not under a Williamson Act contract (California Department of Conservation, 2018). Neither the Project Site nor neighboring parcels are designated for agricultural uses in the General Plan or zoned for agricultural uses. All the adjacent parcels are zoned for commercial or public uses. Additionally, no existing agricultural uses are located on or in the vicinity of the Project Site. Therefore, the proposed project would not convert farmland to non-agricultural uses, conflict with existing zoning for agricultural uses, or conflict with a Williamson Act contract. Implementation of the proposed project would have ***no impact*** relative to this issue.

Responses c): The project site is not considered 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 an existing right-of-way and does not have a General Plan or Zoning designation. Additionally, the proposed project is improvements to the existing public right-of-way and would not result in in conversion of farmland to non-agricultural use, or

conversion of forest land to non-forest use. 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	

Existing Setting

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 construction of the proposed project. Unlike a development project, an infrastructure/roadway project does not have a traditional daily trip generation (Fehr & Peers, 2020); therefore, operational emissions associated with the proposed project would be minimal to none. According to VMT Analysis prepared by Fehr & Peers, implementation of the proposed project would result in 0.37 percent increase in vehicle miles traveled (VMT) or 150 miles. Additionally, although travel speed on Main Street would remain in the 25 to 30 miles per hour (MPH) speed bin under both the 2042 No Project and 2042 With Project conditions, implementation of the project would influence the traffic volume and travel speed on roadways in the vicinity of the project area increasing congested speed on Main Street from 28 to 29 MPH. The increase in congested speed highlights a reduction in the existing vehicle traffic congestion along Main Street and neighboring roadways, which means there would be a reduction in air pollution from vehicles idling along Main Street. Therefore, the proposed project would have a less than significant impact regarding operational emissions. Further discussion of construction-related air quality impacts are addressed below.

The SJVAPCD's approach to analysis of construction impacts is to require implementation of effective and comprehensive control measures, rather than to require detailed quantification of emission concentrations for modeling of direct impacts. 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. The SJVAPCD has determined that, on its own, compliance with Regulation VIII for all sites and implementation of all other control measures indicated in Tables 6-2 and 6-3 of the SJVAPCD's Guide for Assessing and Mitigating Air Quality Impacts (as

appropriate) would constitute sufficient mitigation to reduce construction PM_{10} impacts to a level considered less than significant.

Construction would result in numerous activities that would generate dust. The fine, silty soils in the project area 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 a few weeks to a few months. The initial phase of project construction would involve grading and site preparation activities, followed by paving. 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 Rule VIII. The proposed project would have a ***less than significant*** impact related to construction activities on these potential impacts.

Response c): Sensitive receptors are those parts of the population that can be severely impacted by substantial concentrations of air pollution. Children, pregnant women, the elderly, and those with existing health problems are considered more sensitive to air pollution than others. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, day care centers, playgrounds, and medical facilities. The closest sensitive receptors are the neighboring residences adjacent to the commercial parcels next to Main Street approximately 125 to 200 feet to the east and west of portions of the project site.

Emissions of carbon monoxide (CO) are of potential concern, as the pollutant is a toxic gas that results from increased traffic levels and vehicle idling. In addition, Toxic Air Contaminants (TACs) are also a category of environmental concern. The California Air Resources Board's (CARB) has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks from TACs are a function of both the concentration of emissions and the duration of exposure. Health-related risks associated with DPM in particular are primarily associated with long-term exposure and associated risk of contracting cancer.

The residences located west and east of the project site would be considered the nearest existing sensitive receptors to the project site and could become exposed to DPM emissions from the site during construction activities. However, construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. In addition, only portions of the site would be disturbed at a time during buildout of the proposed project, with operation of construction equipment regulated and occurring intermittently throughout the course of a day. Thus, the likelihood that any one sensitive receptor would be exposed to high concentrations of DPM for any extended period of time would be very low. Because health risks associated with exposure to DPM or any TAC are correlated with high concentrations over a long period of exposure (e.g., over a 70-year lifetime), the temporary, intermittent construction-related DPM emissions would not be expected to cause any health risks to nearby sensitive receptors. Additionally, the implementation of all State, Federal, and SJVAPCD requirements would greatly reduce pollution concentrations generated during construction activities. Thus, construction of the proposed project would not expose any nearby existing sensitive receptors to any short-term substantial concentrations of TACs.

The project does not involve long-term operation of any stationary diesel engine or other major on-site stationary source of TACs. The proposed project in the widening of the existing right-of-way to reduce the existing traffic congestion on Main Street. As noted above, implementation of the project would influence the traffic volume and travel speed on roadways in the vicinity of the project area increasing congested speed on Main Street from 28 to 29 MPH. The increase in congested speed highlights a reduction in the existing vehicle traffic congestion along Main Street and neighboring roadways. Therefore, there would be a reduction in air pollution from vehicles idling along Main Street resulting in a reduction to operational air emissions on the neighboring residences.

Overall, implementation of the proposed project would not expose these sensitive receptors to substantial pollutant concentrations, including but not limited to the neighboring residences. As described under Response a) – b) above, the proposed project would not generate significant concentrations of air emissions. Therefore, impacts to sensitive receptors would be negligible and this is a ***less than significant*** impact.

Response d): The proposed project would not generate objectionable odors. 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. 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 project does not include any of the aforementioned uses. As such, 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.

Responses to Checklist Questions

Response a): No special-status species are expected to be affected by the proposed project. The project involves the widening of the existing right-of-way of Main Street in a highly urbanized area of Manteca. As part of the project, the existing sidewalks would be retained and the right-of-way would be repaved with pavers and re-stripped to add an additional travel lane in each direction. No new ground disturbance or vegetation removal activity will occur outside of the existing footprint of the existing right-of-way. Therefore, there is no habitat for any special-status species on or adjacent to the project site. The proposed project would have ***no impact*** to any threatened, endangered, or special-status species.

Responses b) c): There is no riparian habitat on the project site. Additionally, 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. The proposed project is located within an existing right-of-way in a highly urbanized and heavily trafficked area of downtown Manteca. Therefore, the proposed project would have ***no impact*** riparian habitats, wetlands, or sensitive natural communities.

Response d): The proposed project is located in a highly urbanized area of Manteca, and no wildlife corridors or nursery sites are located on or near the project site. No sensitive habitats were identified within or near the project limits. The project area is highly urbanized and heavily used and does not provide significant habitat for wildlife. The proposed project is not expected to have an impact on habitat suitable for wildlife movement or migration. Therefore, the proposed project would have a ***no impact*** relative to this topic.

Responses e): The Resource Conservation Element of the General Plan establishes numerous policies and implementation measures related to the protection of biological resources. The following are relevant policies and actions applicable to the project:

- Policy RC-P-31: Minimize impact of new development on native vegetation and wildlife.
- Policy 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.
- Policy RC-P-34. Protect special status species and other species that are sensitive to human activities.
- RC-P-35. Allow contiguous habitat areas.

As described in Responses a) and b) c) above, the proposed project involves the improvement to an existing right-of-way in a highly urbanized area of Manteca. The proposed project would have no impact to any threatened, endangered, or special-status species and no wildlife corridors or nursery sites are located on or near the project site. The project does require the removal of seven trees located within medians in the right-of-way; however, these are ornamental street trees for

landscaping and aesthetic purposes. Thus, 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 a ***less than significant*** impact relative to this topic.

Responses f): The proposed project is subject to the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). Because the proposed project has no potential to impact biological resources and there would be no ground disturbance outside of the footprint of the existing right-of-way, the proposed project does not conflict with the SJMSCP. Additionally, Main Street was paved prior to the adoption of the SJMSCP; therefore, according to the SJMSCP Review Form, the proposed project would not have to seek coverage under the SJMSCP and would have ***no impact*** relative to this topic.

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 Section15064.5?		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-c): The project site is in an urbanized area that was previously disturbed when the original improvements were constructed. Typically, under this scenario, it can be assumed that if there were buried cultural resources, they would have been discovered during the original construction effort. There are no known cultural resources within the project site. Nevertheless, it is possible that a cultural resource could be found during construction activities. The implementation of Mitigation Measures CLT-1 and CLT-2 would require appropriate steps to preserve and/or document any previously undiscovered resources that may be encountered during construction activities, including human remains. Implementation of this measure would reduce this impact to a ***less than significant*** level.

Mitigation Measure

Mitigation Measure CLT-1: *If cultural resources (i.e., prehistoric sites, historic sites, isolated artifacts/features, and paleontological sites) are discovered during construction, work shall be halted immediately within the area of the discovery, the City of Manteca shall be notified, and a qualified archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology (or a qualified paleontologist in the event paleontological resources are found) shall be retained to determine the significance of the discovery. The City of Manteca shall consider recommendations presented by the professional for any unanticipated discoveries and shall carry out the measures deemed feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. Specific measures are developed based on the significance of the find.*

Mitigation Measure CLT-2: *Pursuant to State Health and Safety Code §7050.5 (c) State Public Resources Code §5097.98, if human bone or bone of unknown origin is found during construction, all work shall stop in the vicinity of the find and the San Joaquin County Coroner shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission who shall notify the person believed to be the most likely descendant. The most likely descendant shall work with the contractor to develop a program for reinternment of the human remains and any associated artifacts. Additional work is not to take place within the immediate vicinity of the find until the identified appropriate actions have been implemented.*

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

Response 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.

The proposed project includes the improvement of the existing Main Street right-of-way from Yosemite Avenue to Alameda Street. 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, and fuel used by off-road construction vehicles during construction. Overall, proposed project energy consumption would be temporary and minor, given the nature of the proposed project (a roadway widening), and given the size and scope of proposed project activities.

Conclusion

The proposed project would be responsible for conserving energy, to the extent feasible, and relies heavily on reducing per capita energy consumption to achieve this goal, including through Statewide and local measures. 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 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. The proposed project would comply with all existing energy standards, including those established by the City of Manteca and San Joaquin County, and would not result in significant adverse impacts on energy resources.

Therefore, the proposed project would not be expected cause an inefficient, wasteful, or unnecessary use of energy resources nor cause a significant impact on any of the threshold as described by Appendix G of the CEQA Guidelines. 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): Figure 5 shows the earthquake faults in the region. As shown in the figure, 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 or in the regional vicinity. 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 9 miles to the west of the project site, 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 ground shaking 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 Code. Additionally, the City of Manteca has adopted Design and Construction Standards and incorporated numerous policies relative to seismicity to ensure the health and safety of all people. Design in accordance with these standards and policies 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 and local standards and policies, 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. The project site is an existing right-of-way paved with concrete. According to Figure 5.5-2: Soils Map of the Manteca General Plan Existing Conditions Report (ECR), the entire project site contains Delhi – Urban Land Complex, 0 to 2 percent slopes, soil. The physical soil properties of Delhi soils from a depth of 0 to 26 inches is 81 percent sand, 17 percent silt, and 0 -3 – 5 percent clay, resulting in a linear extensibility of less than 3 percent[1]. Shrink-swell potential is determined by linear extensibility, which refers the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. Soils are considered to have a low potential when the linear extensibility is less than 3 percent. Therefore, based on the above and Figure 5.5-4 of the Manteca General Plan ECR, the project site has a low shrink-swell potential.

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, these policies obligate the City to mitigate the potential impacts of seismic-induced settlement of uncompacted fill and liquefaction due to the presence of a high-water table (Policy S-P-2). 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.

Therefore, this potential impact would be ***less than significant***.

Response b): According to the project site plans prepared for the proposed project, development of the proposed project would not result in the creation of any additional impervious surface areas. The proposed project is an infrastructure/roadway improvement project that is surrounded by existing commercial and public uses. The development of the project site involves improving an existing right-of-way by excavating, grading, and repaving the project site with pavers. The ground disturbance would be limited to the areas proposed for grading and excavation, including the proposed 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. Implementation of the following mitigation measure would ensure the impact is ***less than significant***.

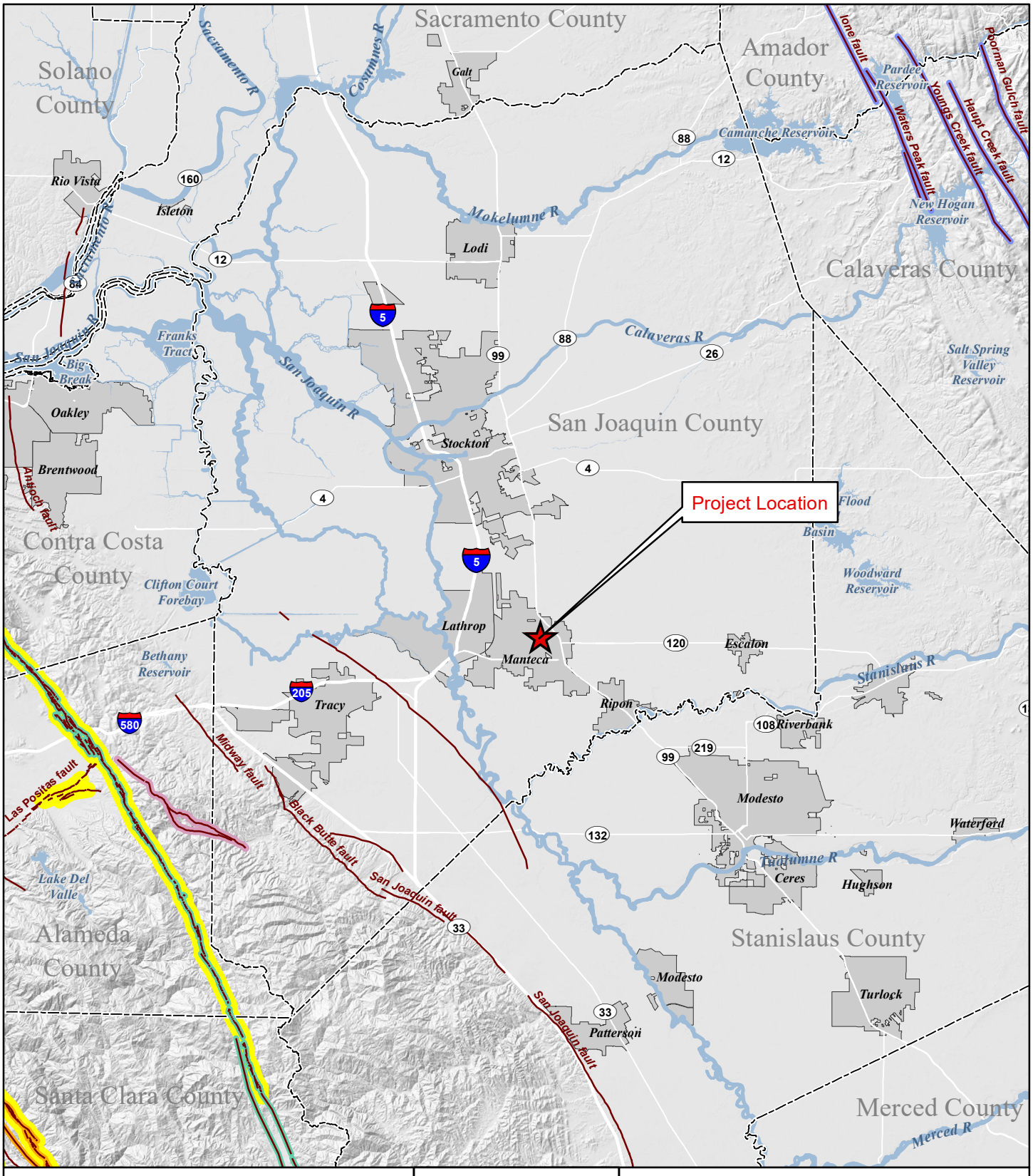
[1] United States Department of Agriculture Natural Resources Conservation Service (NRCS). *Web Soil Survey* 2016.

Mitigation Measure

Mitigation Measure GEO-1*: The project applicant shall submit a Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) to the RWQCB in accordance with the NPDES General Construction Permit requirements. The SWPPP shall be designed to control pollutant discharges utilizing Best Management Practices (BMPs) and technology to reduce erosion and sediments. BMPs may consist of a wide variety of measures taken to reduce pollutants in stormwater runoff from the project site. Measures shall include temporary erosion control measures (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) that will be employed to control erosion from disturbed areas. Final selection of BMPs will be subject to approval by the City of Manteca and the RWQCB. The SWPPP will be kept on site during construction activity and will be made available upon request to representatives of the RWQCB.*

Response e): The project is an infrastructure project and no septic systems will be used. 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 an existing right-of-way surrounded by existing or future urban development. As discussed in Section V, Cultural Resources, should artifacts or unusual amounts of stone, bone, or shell be uncovered during construction activities, an archeologist should be consulted for an evaluation. Implementation of Mitigation Measure CLT-1 would require investigations and avoidance methods in the event that a previously undiscovered cultural resource is encountered during construction activities. With implementation of Mitigation Measure CLT-1, impacts to paleontological resources or unique geologic features are not expected. This is a ***less than significant*** impact.


Project Location
Sacramento County
Solano County
Amador County
Calaveras County
San Joaquin County
Contra Costa County
Alameda County
Santa Clara County
Stanislaus County
Merced County
Rio Vista
Isleton
Galt
Lodi
Stockton
Oakley
Brentwood
Lathrop
Manteca
Tracy
Ripon
Escalon
Riverbank
Modesto
Waterford
Ceres
Hughson
Turlock
Patterson
Camanche Reservoir
Pardee Reservoir
New Hogan Reservoir
Salt Spring Valley Reservoir
Woodward Reservoir
Flood Basin
Bethany Reservoir
Clifton Court Forebay
Franks Tract
Big Break
Sacramento R
Cosumnes R
Mokelumne R
Calaveras R
San Joaquin R
Stanislaus R
Tuolumne R
Merced R
Ione fault
Pleasant Valley fault
Waters Peak fault
Youngs Creek fault
Haupt Creek fault
Foothill fault
Antioch fault
Las Positas fault
Midway fault
Black Butte fault
San Joaquin fault
Legend
Quaternary fault
Foothills fault system
Calaveras fault zone
Corral Hollow-Carnegie fault zone
Greenville fault zone
Alquist-Priolo Zone
Data sources: US Geologic Survey; CalAtlas. Map date: April 28, 2020.
0
2½
5
Miles
CITY OF MANTECA MAIN STREET WIDENING
Figure 5. Earthquake Fault Map
De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

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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. In California, the transportation sector is the largest emitter of GHGs, followed by the industrial sector (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 441 million gross metric tons of carbon dioxide equivalents ($MMTCO_2e$) in 2014 (California Energy Commission, 2016). By 2020, estimated business-as-usual greenhouse gas emissions in California are projected to be 509 $MMTCO_2e$ per year (California Air Resources Board, 2015). 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 percent (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.

Consumption of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in 2017, accounting for 41 percent of total GHG emissions in the state. This category was followed by the industrial sector (24 percent), the electricity generation sector (including both in-state and out of-state sources) (15 percent), and the agriculture sector (8 percent), the residential energy consumption sector (7 percent), and the commercial energy consumption sector (5 percent)(California Energy Commission, 2019).

Responses to Checklist Questions

Responses a), b): The SJVAPCD has evaluated different approaches for estimating impacts, and summarizing potential GHG emission reduction measures. 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 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 *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 percent, 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 percent 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 a qualitative approach for this analysis. 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 City of Manteca Climate Action Plan (CAP) (2013), which has been determined to reduce GHG emissions in accordance with AB 32 and SB 375 levels. 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 for the year 2020 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 CAP which includes GHG reduction strategies that are expected to reduce community-wide GHG emissions by 15 percent below 2005 levels by 2020.

The proposed project would generate GHGs during the construction phase 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, and paving phases. Other sources of GHG emissions would be minimal.

The City of Manteca developed a Climate Action Plan (CAP) in October 2013. The CAP provides a baseline emissions inventory for the community, provides forecasts and future year GHG reduction targets, develops a comprehensive set of strategies for reducing GHG emissions community GHG emissions, and describes a set of guidelines for implementation, monitoring, and funding of GHG reduction strategies. The CAP aligns the City of Manteca with the Statewide GHG reduction requirements as set forth in Statewide legislation AB 32 and SB 375, by providing GHG reduction strategies that are expected to reduce community-wide GHG emissions by 15 percent below 2005 levels by 2020. 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), the proposed project would not generate a 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. Since the proposed project would be consistent with the City CAP, 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 proposed project is an infrastructure/roadway project that is surrounded by Neighborhood Commercial and Public/Quasi-Public uses. Although vehicles with hazardous materials could traverse the project site, the proposed project is located sufficiently distant from sensitive receptors such that any routine transport, use, or disposal of hazardous materials would not cause a significant hazard. In addition, since the proposed project would divert trips from existing roadways that are located closer to sensitive land uses (such as nearby residences) compared to the proposed roadway, the proposed project would not create a significant hazard to the public or environment related to upset or accident conditions involved the release of hazardous materials. Additionally, project implementation results in a higher average congested speed along Main Street, which highlights a reduction in traffic congestion along Main Street. The operational phase of the proposed project does not pose a significant hazard to the public or the environment. Overall, therefore, the proposed project would have a ***less than significant*** impact relative to this issue.

Response c): The nearest school (Manteca High School) is located approximately 0.2 miles to the southeast of the project site, at its closest point. The proposed project is an infrastructure/roadway improvement project involving the widening of busy roadway. Implementation of the project will result in the reduction of existing traffic congestion along the roadway allowing vehicles and trucks to travel faster down the roadway. Therefore, no hazardous materials would be stored on-site, which results 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 adjacent to 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 investigation site, located approximately 0.36 miles to the southeast of the project site, is the:

- Proposed Manteca High School Addition (site code: 60000342) – 206, 216 and 220 South Garfield Avenue: This site is a School Investigation, which has a current status of Inactive – Needs Evaluation. The soil on-site contained high concentrations of lead, which was removed without Department of Toxic Substance Control (DTSC) oversight; therefore, DTSC recommended preparation of a Preliminary Environmental Assessment, which has yet to be prepared.

Because the project site is not included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5, 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 the vicinity of a private airstrip or public airport. The closest airport or airstrip is the Stockton Metropolitan Airport, located approximately 5.6 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 would not impair or physically interfere with any of San Joaquin County's emergency plans or evacuation routes. The proposed project involves the widening of Main Street to reduce the existing traffic congestion. Therefore; the proposed project itself would relieve traffic congestion assisting with quicker evacuation routes. The proposed project would not alter the adjacent street system. Construction activities are expected to occur over phases, resulting in minimal road closures. The City will ensure that roadways surrounding the project site remain accessible to emergency vehicles and crews, and open for emergency evacuations, if necessary. 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 agricultural 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.

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 also include "moderate" and "non-wildland fuel" ranks. Areas west of Interstate 5, approximately 16 miles or further southwest of the project site, are designated as "moderate" and "high" fuel ranks. There are sufficient fuel breaks between this area and the City of Manteca.

The project site is located in an area with a "Local Responsibility Zone (LRA) Unzoned" rank. The site is also not located on a steep slope, and the site 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

Response a): Implementation of proposed project would not violate any water quality or waste discharge requirements. 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. The RWQCB requires a project-specific SWPPP to be prepared for each project that disturbs an area one acre or larger. The SWPPP is required to include project specific best management measures that are designed to control drainage and erosion. Mitigation Measure GEO-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 project. The SWPPP (Mitigation Measure GEO-1) and the project specific drainage plan would reduce the potential for the proposed project to violate water quality standards during construction.

No new, operational sources of water quality degradation are anticipated in conjunction with the project. As part of the project, the existing stormwater drains would be replaced with french

drains along both sides of the roadway connecting to existing catch basins. After construction is complete, the quality of runoff from the street would be comparable to the quality of current runoff. The proposed project would not degrade water quality.

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

Response b): The proposed project is an infrastructure/roadway improvement project that is surrounded by commercial and residential uses and does not propose any additional impervious surfaces. The proposed project would not use existing groundwater resources; therefore, the 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). Overall, this impact would be ***less than significant***.

Responses c.i), c.ii), c.iii), e): When land is in a natural or undeveloped condition, soils, mulch, vegetation, and plant roots absorb rainwater. This absorption process is called infiltration or percolation. Much of the rainwater that falls on natural or undeveloped land slowly infiltrates the soil and is stored either temporarily or permanently in underground layers of soil. When the soil becomes completely soaked or saturated with water or the rate of rainfall exceeds the infiltration capacity of the soil, the rainwater begins to flow on the surface of land to low lying areas, ditches, channels, streams, and rivers. Rainwater that flows off a site is defined as storm water runoff. When a site is in a natural condition or is undeveloped, a larger percentage of rainwater infiltrates into the soil and a smaller percentage flows off the site as storm water runoff.

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.

The proposed project would not change the volume of storm water runoff. The proposed project is in a fully urbanized portion of the City of Manteca and is currently paved and impermeable. 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 project to alter a water course, which could lead to on or offsite flooding. As discussed earlier, the project would result in temporary soil disturbance activities during construction during which time a storm water pollution prevention plan for the control of soil erosion and sediment runoff would be implemented. As part of the project, the existing stormwater drains would be replaced with french drains along both sides of the roadway connecting to existing catch basins. Additionally, the existing catch basins at the intersection of Center Street and Main Street do not meet current standards and will be upgraded as part of the project to improve flooding issues at the intersection. Runoff from the project would be directed towards the newly constructed storm drains. Because the project site is currently impermeable, the amount of surface runoff would not increase due to the project. Therefore, the proposed project would not alter the existing drainage pattern of the project site during either construction or operation.

Additionally, 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.

Overall, the construction of the proposed project facilities would not alter the existing drainage pattern of the area, or alter the course of a stream or river, in a manner that would result in substantial erosion or siltation, or increase the rate or amount of surface runoff in a manner that would result in flooding, or create or contribute runoff water which would exceed the capacity or existing or planned drainage systems or provide substantial additional sources of polluted runoff. The proposed project would also not conflict with any water control quality plan or sustainable groundwater management plan. Therefore, this is a ***less than significant*** impact.

Response d): The proposed project would not expose people or structures to a significant risk of loss, injury or death involving flooding because of the failure of a levee or dam. The proposed project is not located within a 100-year 200-year, or 500-year flood zone. The FEMA Flood Insurance Rate Map (FIRM) Number 06077C0640F, dated October 16, 2009, indicates the project site is in Flood Zone X, an area of minimal flood hazard.

The project site is not anticipated to be inundated by a tsunami or seiche because it is located at an elevation of approximately 25 to 30 feet above sea level and is approximately 50 miles away from the Pacific Ocean which is the closest ocean waterbody.

According to Figure 4.4-3 of the Manteca General Plan ECR, the project site is located within the dam inundation area for the New Melones 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.

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.

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 is consistent with the surrounding uses and 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 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 an existing right-of-way and does not have a General Plan land use or zoning designation. Therefore, the proposed project would not require changes to any land use designations or zoning and would not increase utility demands. The adjacent parcels to Main Street are designated as Neighborhood Commercial and Public/Quasi-Public uses in the Manteca General Plan. The proposed project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The propose project is an infrastructure/roadway improvement to widen Main Street to reduce existing traffic congestion allowing faster travel for Manteca residents and visitors, as well as reducing idling cars impacts on the adjacent businesses and residences. 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 State Mining and Reclamation Act of 1975 (SMARA) requires that the State Mining and Geology Board map areas in California that contain regionally significant mineral resources. 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 MRZ-1 to MRZ-4 are based on knowledge of a resource's presence and the quality of the resource. The project site is an existing right-of-way in a highly urbanized area of Manteca; therefore, no mineral extraction operations exist in or adjacent to the project site. Portions of the project site are designated within Mineral Resource Zone 3 (MRZ-1), as delineated by the Mineral Resources and Mineral Hazards Mapping Program (MRMHMP) (California Department of Conservation, 2012). MRZ-3 is defined by the MRMHMP as being in areas containing mineral deposits the significance of which cannot be evaluated from the available data.

Responses to Checklist Questions

Responses a), b): Portions of the project site is mapped as being located within Mineral Resource Zone 3 (MRZ-3), as delineated by the Mineral Resources and Mineral Hazards Mapping Program (MRMHMP). MRZ-3 is defined by the MRMHMP as being in areas containing mineral deposits the significance of which cannot be evaluated from the available data. The proposed project activities would not result in substantial subsurface excavation and does not include new development of vacant land or open space. The project is not located in an area used or available for mineral extraction and would not convert an existing or future exploration for, and extraction of, mineral resources. Therefore, the 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

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 range of numbers. The decibel (dB) scale is used to facilitate graphical visualization of large ranges of numbers. 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 graphically practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels 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. All noise levels reported in this section are in terms of A-weighted levels and are expressed in units of dBA, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound power 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 to measure the ambient noise level 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, 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 dBA penalty for evening noise. Typically, CNEL and L_{dn} values are within 0.5 dBA of each other and are often considered to be synonymous. 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
Quiet Urban Nighttime	--40--	Theater, Large Conference Room
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human

SOURCE: CALTRANS, TECHNICAL NOISE SUPPLEMENT, TRAFFIC NOISE ANALYSIS PROTOCOL. NOVEMBER 2009.

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.

Regulatory Setting – Manteca 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:

Goals

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

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 14 of this section).

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 15 of this section).

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

Implementation Measures

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.

Table NOISE-2: Maximum Allowable Noise Exposure Mobile Noise Sources

MAXIMUM ALLOWABLE NOISE EXPOSURE MOBILE NOISE SOURCES

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

[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: MANTECA GENERAL PLAN, TABLE 9-1.

Table NOISE-3: Performance Standards for Stationary Noise Sources or Projects Affected by Stationary Noise Sources

PERFORMANCE STANDARDS FOR STATIONARY NOISE SOURCES OR PROJECTS AFFECTED BY STATIONARY NOISE SOURCES[1,2]

Noise Level Descriptor	Daytime	Nighttime
	7 a.m. to 10 p.m.	10 p.m. to 7 a.m.
Hourly Leq, dB	50	45
Maximum Level, dB	70	65

[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: MANTECA GENERAL PLAN, TABLE 9-2.

Regulatory Setting – Manteca 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.

R*esponses to Checklist Questions*
Response a): The proposed project has the potential to generate an increase in temporary ambient noise from project construction activities, and an increase in permanent ambient noise during project operation.

Construction Noise
Proposed project construction activities would require the use of construction equipment, including powered construction equipment; therefore, the proposed project could result in temporary or periodic increases in ambient (outdoor) noise levels in the project vicinity above levels existing without the proposed project. Table NOISE-4 provides a list of the types of equipment which may be associated with construction activities and the associated noise levels. Activities involved in project construction would typically generate maximum noise levels ranging from 85 to 90 dB at a distance of 50 feet.

During construction, ambient noise levels would increase at the nearest sensitive receptors, which would be the nearby residences located approximately 125 feet from project construction activities. It should be noted that the residences would be shielded by the existing commercial and public/quasi-public developments along Main Street. Therefore, the projected noise levels have the potential to exceed the City noise standard of 70 dB on a temporary basis. However, as noted above, the City of Manteca Municipal Code Section 17.58.050 D exempts construction noise from its noise standards when it is a part of an approved Building Permit and construction

activities only occur between the hours of 7:00 AM to 7:00 PM daily in accordance with City of Manteca Municipal Section 17.58.050.E. Since all project-related construction activities would only occur within the hours specified in the City of Manteca Municipal Code, the proposed project would not result in a violation of the City's construction noise standards, resulting in a **less than significant** impact.

Table NOISE-4: Construction Equipment Noise

Type of Equipment	*Predicted Noise Levels, L_{max} dB*				*Distances to Noise Contours, feet*	
	Noise Level at 50'	*Noise Level at 100'*	*Noise Level at 200'*	*Noise Level at 400'*	*70 dB L_{max} contour*	*65 dB L_{max} contour*
Backhoe	78	72	66	60	126	223
Compactor	83	77	71	65	223	397
Compressor (air)	78	72	66	60	126	223
Concrete Saw	90	84	78	72	500	889
Dozer	82	76	70	64	199	354
Dump Truck	76	70	64	58	100	177
Excavator	81	75	69	63	177	315
Generator	81	75	69	63	177	315
Jackhammer	89	83	77	71	446	792
Pneumatic Tools	85	79	73	67	281	500

SOURCE: ROADWAY CONSTRUCTION NOISE MODEL USER'S GUIDE. FEDERAL HIGHWAY ADMINISTRATION. FHWA-HEP-05-054. JANUARY 2006.

Operational Noise

Generally, a project may have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. In practice, more specific professional standards have been developed. These standards state that a noise impact may be considered significant if it would generate noise that would conflict with local planning criteria or ordinances, or substantially increase noise levels at noise-sensitive land uses.

The proposed project does not include the development of residential or commercial uses that would increase vehicular trips within the project area, nor does it include the construction of any new noise-generating uses. The proposed project is an infrastructure/roadway improvement project that would not directly generate increased noise. Implementation of the proposed project would result in a minimal increase in overall VMT of 0.37 percent and a 3.6 percent increase in travel speed along Main Street. Therefore, increases in traffic noise from the proposed project would be negligible because traffic volumes would increase very slightly as a result of the proposed project, and corresponding changes in noise levels are logarithmic in nature. Additionally, the increased travel speed highlights a reduction in traffic congestion on the roadway. A reduction in traffic congestion would result in less operational traffic noise from idling cars on the roadway, although it would be partially offset by an increase in noise associated with higher travel speeds. The net change in noise with the offsetting described is negligible. In addition, the improvement of Main Street would result in diverting some traffic (including truck traffic) that would otherwise travel along the adjacent roadways to avoid the traffic along Main Street. Therefore, operation traffic noise associated with the proposed project would result in a **less than significant** impact generated from project-related traffic noise.

Conclusion

The proposed project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of the applicable standards. As such, this is a ***less than significant*** impact.

Response b): 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 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.

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-5 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). One-half this minimum threshold or 0.1 in/sec p.p.v. is considered a safe criterion that would protect against architectural or structural damage. The general threshold at which human annoyance could occur is noted as 0.1 in/sec p.p.v.

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.

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. Table NOISE-6 shows the typical vibration levels produced by construction equipment. The Table NOISE-6 data indicates that construction vibration levels are less than the 0.2 in/sec p.p.v. threshold of damage to buildings and less than the 0.1 in/sec threshold of annoyance criteria at distances over 25 feet.

Table NOISE-6: Vibration Levels for Varying 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

The primary vibration-generating activities associated with the proposed project would occur during construction when activities such as grading, utilities placement, and roadway construction occur. Sensitive receptors which could be impacted by construction related vibrations, especially vibratory compactors/rollers, are located approximately 10 feet or further from the project site. Therefore, construction activities may cause damage to existing buildings or cause annoyance to sensitive receptors. However, construction related vibrations would be temporary in nature and only occur during normal daytime working hours of 7:00 AM to 7:00 PM. Additionally, according to City of Manteca Municipal Code Section 17.58.070(D), vibrations from temporary construction/demolition and vehicles that leave the project site are exempt from vibration provisions. Therefore, implementation of the proposed project would have a ***less than significant*** impact relative to this environmental topic.

Response c): The project site is not located within the vicinity of an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport. The closest airport or airstrip is the Stockton Metropolitan Airport, located approximately 5.65 miles north of the project site. The proposed project would, therefore, not expose people residing or working in the project area to excessive noise levels associated with such airport facilities. The project site is not located within the vicinity of a private airstrip. The proposed project would, therefore, not expose people residing or working in the project area to excessive noise levels associated with such private airport facilities. 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 is an infrastructure/roadway improvement project that is surrounded by parcels designated Neighborhood Commercial and Public/Quasi-Public in the Manteca General Plan 2023. The proposed project would not involve changing the City's land use and planning designations to a more intense use and therefore would not induce substantial population growth. The proposed project is designed solely to improve traffic conditions and would have no impact on population growth, either directly or indirectly. Implementation of the proposed project would have ***no impact*** relative to this topic.

Response b): The project site is the existing right-of-way and does not contain housing. The proposed project would not displace housing or people. Implementation of the proposed project would have ***no 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 Department. The Manteca Fire Department serves approximately 71,164 residents throughout approximately 17.2 square miles within the City limits. The Manteca Fire Department operates out of four (4) facilities that are strategically located in the City of Manteca. The nearest fire station to the project site is located at 1154 Union Road, approximately 1.2 miles southwest of the project site.

The Manteca Fire Department 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 percent of the time (Response Effectiveness). In 2014, the Department averaged a 4:18 response time City-wide and was on scene within five minutes 77 percent of the time. In 2015, the Department averaged a 4:40 response time City-wide. Additionally, in 2015, 6,615 calls were made to the Department, which is the greatest number of calls in the history of the Manteca Fire Department.[2]

The Department is not currently meeting the Response Effectiveness goal. In May of 2016, the Department arrived on-scene within 5 minutes approximately 66 percent of the time.[3] The percentage continues to decline. The Department has recently seen increased calls and expanded areas of coverage. The proposed project will be served by the Department's most impacted fire station (Station No. 2, 1154 S. Union Rd). To combat the increased calls in the southern areas of Manteca, the Department has recently staffed a "Rescue" in District 2. The additional unit will help relieve the significant call volume in south Manteca.

[2] City of Manteca Fire Department. 2015. City of Manteca Fire Department 2015 Annual Report.
[3] Personal Communication with Lantz Rey, City of Manteca Fire Department Fire Marshal. July 19, 2016.

On September 11, 2013, Fire Station No. 4 opened in northwest Manteca. Fire Station No. 4 was one factor that helped to improve both the average response time and the percent of response effectiveness in 2014.

The construction of Fire Station No. 5, which is planned in southeast Manteca, will have a similar impact on response times and response effectiveness. The City is in the process of completing 30 percent of the design of this station with the intent of constructing and staffing this station by the 2019/2020 fiscal year. Funding for this station is dependent on additional annexations and development in the area. The construction and staffing of Fire Station No. 5 will allow the City the ability to achieve the full alarm standard outlined by the National Fire Protection Association 1710 for the first time in the City's History; this will directly affect the Insurance Services Office (ISO) rating, enhance service to the citizens of Manteca, and improve the department's ability to obtain grants. Nevertheless, the City's currently ISO is at 2 (note: lower is better), which is better than most of the jurisdictions in San Joaquin and Stanislaus County.

The proposed project is an infrastructure/roadway project that is surrounded by commercial and residential uses. The proposed project would not add additional people to the City of Manteca; therefore, the proposed project would not put additional demands for service on the Manteca Fire Department. Moreover, project implementation results in a 3.6 percent increase in travel speed along Main Street which could assist in reducing response times. The proposed project would be constructed in accordance with applicable fire codes set forth by the State Fire Marshall and Manteca Fire Department. The nearest local fire responders would be notified, as appropriate, of traffic control plans during construction to coordinate emergency response routing during construction work. Therefore, the impact of the proposed project on the need for additional fire services facilities is ***less than significant***.

Police Protection

The project site is currently under the jurisdiction of the Manteca Police Department. The Manteca Police Department operates out of its headquarters located at 1001 W. Center Street. The project site is located approximately 0.81 miles east 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.

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. Currently the City has 63 sworn officers. With a population of 71,164, that equates to a staffing level of .85 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.

The proposed project is an infrastructure/roadway project that is surrounded by commercial and public uses. The proposed project would not add additional people to the City of Manteca;

therefore, the proposed project would not put additional demands for service on the Manteca Police Department. Moreover, implementation of the proposed project results in a 3.6 percent increase in average travel speed along Main Street which could assist in reducing response times. 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

The proposed project does not include any residential units, and thus, would not result in an increase in the student population in the area. Therefore, development of the proposed project would not result in a subsequent need for additional school facilities. There would be ***no impact***.

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 does not include any residential units and does not result in any additional need for parks. Therefore, implementation of the proposed project will result in a ***no impact***.

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 is an infrastructure/roadway project that is surrounded by mostly commercial uses. The proposed project does not include the construction of residential uses, and therefore does not generate additional direct demand on park services. Thus, implementation of the proposed project would have ***no impact*** relative to this issue.

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	

Responses to Checklist Questions

Response a), b): The project site is in a highly urbanized area of Manteca on Main Street. The proposed project would widen Main Street from three lanes (one travel lane in each direction and one center turn lane) to five lanes (two travel lanes in each direction and one center turn lane) between Alameda Street and Yosemite Avenue. The existing sidewalks along Main Street will be retained, so no changes are anticipated to pedestrian facilities.

The proposed project has been designed to relieve the existing traffic congestion along Main Street. Construction traffic would be temporary and minor. A Traffic Analysis was conducted by Fehr & Peers (see Attachment A), which provided an analysis of changes to congested travel speed due to the additional roadway capacity. According to the Traffic Analysis, the posted speed limit on Main Street is 30 Miles per Hour (MPH). Implementation of the proposed project would result in the daily average speed on Main Street between Alameda Street and Yosemite Avenue to increase from 28 to 29 MPH, a 1 MPH or 3.6 percent increase in travel speed when compared to the existing condition. Therefore, implementation of the proposed project would assist in reducing the existing traffic congestion along Main Street allowing vehicles to travel faster and improving overall circulation.

Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project's transportation impacts. Per Section 15064.3, analysis of vehicle miles traveled (VMT) attributable to a project is the most appropriate measure of transportation impacts. While changes to driving conditions that increase intersection delay are an important consideration for traffic operations and management, the method of analysis does not fully describe environmental effects associated with fuel consumption, emissions, and public health. Section 15064.3(3) changes the focus of transportation impact analysis in CEQA from measuring impact to drivers to measuring the impact of driving. The Traffic Analysis conducted by Fehr & Peers (see Attachment A) also provides an analysis of the additional roadway capacity to local VMT by calculating the Average Daily Traffic (ADT) and VMT under a Design Year 2042 No Project (No Project) condition and Design Year 2042 With Project (With Project) Condition. The study area used for the analysis is bound by Yosemite Avenue to the south, Walnut Avenue to the west, Alameda Avenue to the north, and Powers Avenue to the east.

According to the Traffic Analysis, implementation of the project would result in Average Daily Traffic (ADT) increasing from 17,200 to 17,800, an increase of 600 vehicles or 3.5 percent when

compared to the No Project conditions. Additionally, under the With Project conditions, Vehicle Miles Traveled (VMT) is projected to increase from 40,491 to 40,641, an increase of 150 miles or 0.37 percent when compared to the No Project conditions.

Building new roadways, adding roadway capacity in congested areas, or adding roadway capacity to areas where congestion is expected in the future, typically induces additional vehicle travel[4]. Therefore, an increase in VMT is expected from increasing the number of lanes. The most recent major study, estimates an elasticity of 1.0, meaning that every one percent change in lane miles results in one percent increase in VMT[5]. Thus, because implementation of the proposed project adds two additional travel lanes to the overall roadway capacity and only results in a 0.37 percent increase in VMT, the proposed project would be consistent with CEQA Guidelines Section 15064.3.

Additionally, as described under Responses c), d) (below), the proposed project would not result in inadequate emergency access and would not increase hazards due to design features or incompatible uses. There is a ***less than significant*** impact relative to this topic.

Responses c), d): The proposed project is a roadway infrastructure project, which would increase roadway capacity along a congested roadway. As described under Responses a) b) (above), implementation of the project results additional roadway capacity and increase average travel speeds long Main Street, resulting in improved traffic flow and reduced congestion. The improved conditions would enhance emergency access to Main Street and the surrounding area. Therefore, there would not be a significant concern relating to emergency access to and from the proposed project, as the proposed project would be developed in accordance with all relevant state and local regulations governing emergency vehicle access, which would ensure that the proposed project would not result in inadequate emergency access.

Additionally, no site circulation or access issues have been identified by the Traffic Engineer that would cause a traffic safety problem/hazard or any unusual traffic congestion or delay within the proposed project. As part of the project, the existing 79 on-street parking spaces would be removed to allow additional travel lanes. Therefore, no on-site parking will be allowed along Main Street from Yosemite Avenue to Alameda Street. According to City of Manteca Municipal Code Section 16.23.060.2.d(B), the project would be required to include signage to clearly mark no parking within this portion of Main Street to ensure no future traffic hazards from vehicles attempting to park in the right-of-way. Therefore, implementation of Municipal Code Section 16.23.060.2.d(B) would ensure there is a ***less than significant*** impact relative to this topic.

[4] See page 24: Governor's Office of Planning and Research (2018). *Technical Advisory on Evaluating Transportation Impacts in CEQA*. Available at: https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf

[5] Duranton and Turner (2011). The Fundamental Law of Road Congestion: Evidence from US cities, available at http://www.nber.org/papers/w15376.

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): The project site is in an urbanized area that was previously disturbed when the original improvements were constructed. Typically, under this scenario, it can be assumed that if there were buried cultural resources, they would have been discovered during the original construction effort. There are no known Tribal Cultural Resources (TCRs) within the project site. Nevertheless, it is possible that a TCR could be found during construction activities. Examples of significant archaeological discoveries that may meet the TCR definition would include villages and cemeteries. 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 CLT-1 and CLT-2.

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

Responses a)-c): The proposed project is an infrastructure/roadway project. The proposed project includes the widening of a roadway to relieve traffic congestion. As part of the project, the existing stormwater drains would be replaced with french drains along both sides of the roadway connecting to existing catch basins. Additionally, the existing catch basins at the intersection of Center Street and Main Street do not meet current standards and will be upgraded as part of the project to improve flooding issues at the intersection. The proposed project would not require the use of water or wastewater, or natural gas, facilities. There is the potential for the installation of electric power or telecommunications facilities as part of the proposed project, but this would not generate any significant impacts. Additionally, the storm drain utility upgrades would improve the overall site drainage to assist with on-site flooding. Therefore, the installation of the roadway, including any underground utilities would not cause significant environmental effects. This is a ***less than significant*** impact.

Responses d), e): The proposed project would not generate solid waste. Therefore, implementation of the proposed project would have a ***less than significant*** impact relative to the project's potential to generate solid waste in excess of the State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, and relative to the potential of the proposed project to comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

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	
d) 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. The City of Manteca is not categorized as a "Very High" Fire Hazard Severity Zone (FHSZ) by CalFire. No cities or communities within San Joaquin County are categorized as a "Very High" FHSZ by CalFire. 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 project site will connect to existing roadways. The proposed circulation improvements would allow for greater emergency access relative to existing conditions. The project would not impair implementation of or physically interfere with an adopted 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. The 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 downtown Manteca in an area that is predominately urban, which is not considered at a significant risk of wildlife. Therefore, impacts from project implementation would be considered ***less than significant*** relative to this topic.

Response c): The project includes improvements to infrastructure (a roadway widening) that would allow for decreased fire risk relative to existing conditions. The project would not impair

implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, impacts from project implementation would be considered ***less than significant*** relative to this topic.

Response d): The project site will be connecting to an existing network of streets. The proposed circulation improvements would allow for greater emergency access relative to existing conditions. The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

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 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 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): This Initial Study includes an analysis of the 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 project's contribution to cumulative impacts.

The project would not increase the population or the use of public services and systems; therefore, it was found that there is adequate capacity to accommodate the project.

There are no significant cumulative or cumulatively considerable effects that are identified associated with the proposed project after the implementation of all mitigation measures presented in this Initial Study. With the implementation of all mitigation measures presented in this Initial Study, the proposed project would have a ***less than significant*** impact relative to this topic.

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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Manteca Main Street Widening Project

The Main Street Widening Project is located in the City of Manteca, CA. The project would widen Main Street from 2 lanes to 4 lanes between Alameda Street and Yosemite Avenue. The project study area in bounced by Yosemite Avenue to the south, Walnut Avenue to the west, Alameda Street to the north, and Powers Avenue to the east. The results of the Average Daily Traffic (ADT) and Vehicle Miles Traveled (VMT) analysis was completed using a combination of traffic counts for the Manteca General Plan and the Three County Regional Transportation Plan / Sustainable Communities Strategy (RTP / SCS) Air Quality Conformity Model (Three-County Model).

The project would increase roadway capacity on Main Street by constructing an additional travel lane in each direction. Under Design Year 2042 With Project conditions, Average Daily Traffic (ADT) is projected to increase from 17,200 to 17,800, an increase of 600 vehicles (3.5%) when compared to the Design Year 2042 No Project conditions.

Daily ADT					
	2017 Existing	**2021 No Project**	**2021 With Project**	**2042 No Project**	**2042 With Project**
ADT	16,239	16,400	16,500	17,200	17,800

Source: Fehr & Peers, 2020

Under Design Year 2042 With Project conditions, Vehicle Miles Traveled (VMT) is projected to increase from 40,491 to 40,641, an increase of 150 miles (0.37%) when compared to the Design Year 2042 No Project conditions.

Daily VMT					
	2017 Existing	**2021 No Project**	**2021 With Project**	**2042 No Project**	**2042 With Project**
Daily VMT	37,344	38,043	38,077	40,491	40,641

Source: Fehr & Peers, 2020

The posted speed limit on Main Street is 30 Miles per Hour (MPH). Under Design Year 2042 With Project conditions, the daily average speed on Main Street between Alameda Street and Yosemite Avenue is projected to increase from 28 to 29, an increase of 1 MPH (3.6%) when compared to the Design Year 2042 No Project conditions. Although travel speed on Main Street would remain

in the 25 MPH to 30 MPH speed bin under both 2042 No Project and 2042 With Project conditions, the project is projected to influence the traffic volume and travel speed on roadways in the vicinity of the project area, and therefore result in shifts in VMT by speed bin.

2042 Congested Speed on Main Street		
	2042 No Project	**2042 With Project**
24-Hr Weighted Average	28	29

Source: Fehr & Peers, 2020

	Congested Speed		VMT - Design Year No Project (2042)	
Bin	MIN	MAX	DAILY_TOTAL	Daily %
1	>0	<=5	-	-
2	>5	<=10	-	-
3	>10	<=15	-	-
4	>15	<=20	934	2.31%
5	>20	<=25	14,860	36.70%
6	>25	<=30	11,150	27.54%
7	>30	<=35	13,547	33.46%
8	>35	<=40	-	-
9	>40	<=45	-	-
10	>45	<=50	-	-
11	>50	<=55	-	-
12	>55	<=60	-	-
13	>60	<=65	-	-
14	>65	<=70	-	-
15	>70	<=75	-	-
16	>75		-	-
		Total	40,491	100.00%

	Congested Speed		VMT - Design Year With Project (2042)	
Bin	MIN	MAX	DAILY_TOTAL	Daily %
1	>0	<=5	-	-
2	>5	<=10	-	-
3	>10	<=15	-	-
4	>15	<=20	1,037	2.55%
5	>20	<=25	15,041	37.01%
6	>25	<=30	10,413	25.62%
7	>30	<=35	14,150	34.82%
8	>35	<=40	-	-
9	>40	<=45	-	-
10	>45	<=50	-	-
11	>50	<=55	-	-
12	>55	<=60	-	-
13	>60	<=65	-	-
14	>65	<=70	-	-
15	>70	<=75	-	-
16	>75		-	-
		Total	40,641	100.00%

	Congested Speed		VMT - Design Year Difference	
Bin	MIN	MAX	DAILY_TOTAL	Daily %
1	>0	<=5	-	-
2	>5	<=10	-	-
3	>10	<=15	-	-
4	>15	<=20	103	11.03%
5	>20	<=25	181	1.22%
6	>25	<=30	(737)	-6.61%
7	>30	<=35	603	4.45%
8	>35	<=40	-	-
9	>40	<=45	-	-
10	>45	<=50	-	-
11	>50	<=55	-	-
12	>55	<=60	-	-
13	>60	<=65	-	-
14	>65	<=70	-	-
15	>70	<=75	-	-
16	>75		-	-
		Total	150	0.37%

Capture Area