PUBLIC REVIEW DRAFT

MERCED MALL EXPANSION PROJECT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

MERCED, CALIFORNIA

LSA

November 2018

This page intentionally left blank

CITY OF MERCED

"Gateway to Yosemite"

City of Merced Development Services Department, Planning Division, 678 West 18th Street, Merced, CA 95340

Notice of Intent to Adopt an
Initial Study/Mitigated Negative Declaration

Date: November 19, 2018
To: Public Agencies, Organizations, and Interested Parties
From: City of Merced, Planning Division
Subject: **Notice of Intent to Adopt an Initial Study/Mitigated Negative Declaration**

Pursuant to the *State of California Public Resources Code and the Guidelines for Implementation of the California Environmental Quality Act*, as most recently amended, this is to advise that the City of Merced has prepared an Initial Study to evaluate the environmental effects of the project identified below:

Project Title: Merced Mall Expansion Project

Project Sponsor: Bill Kenney, The Kenney Company, 824 Harbor Island Drive, Newport Beach, CA 92660.

Project Location: This project site is located at 851 West Olive Avenue and is bound by West Olive Avenue to the south, R Street to the west, Loughborough Drive, office buildings, and City of Merced Fire Station 53 to the north, and M Street and office buildings to the east.

Project Description: Under two development phases, the Merced Mall Expansion Project would increase the leasable retail area within the Merced Mall and construct a new movie theater at one of two possible locations within the shopping center.

Phase I. The project would expand the existing buildings located along the southern elevation of the shopping center south towards West Olive Avenue by 80 feet. This would result in an increase in the gross leasable area (GLA) of 50,000 square feet. In addition, the project would include reconfiguring, repaving, restriping, and relandscaping of the southern parking lot.

Phase II. Under Phase II, the project would construct a 72,000-square-foot movie theater containing up to 3,000 seats. The project applicant has proposed two alternatives under Phase II which would result in the location of a new movie theater at one of two locations within the project site, as follows:

- Alternative 1 would add an at-grade 72,000-square-foot theater between the existing JC Penny and Kohl's stores in the main shopping center building. In addition, this Phase would remove the enclosed mall roof between JC Penney and Kohl's, and result in a pedestrian mall and open courtyard in front of the new theater. The existing 22,680-square-foot United

Artists movie theater would be demolished and replaced with a new retail building of similar size. The total GLA of the project site after Phase I and Phase II Alternative 1 would be approximately 660,097 square feet. The total number of parking spaces within the project site following completion of Phase I and Phase II Alternative 1 would decrease by 232 parking spaces for a total of 2,810 parking spaces.

- Alternative 2 would demolish the existing United Artists Theater and two retail stores located along the eastern boundary of the project site, and would construct a 72,000-square-foot at-grade theater at that location. The existing theater is approximately 22,680 square feet in size, and the existing retail stores are approximately 25,416 square feet in size. As a result, the total GLA would increase by approximately 23,904 square feet for a total GLA of 612,001 square feet under Phase I and Phase II Alternative 2. Construction of Phase II Alternative 2 would include reconfigured parking for the theater. The existing 3,099 parking spaces would decrease by 124 parking spaces under Phase I and Phase II Alternative 2, resulting in a total of 2,975 parking spaces under Phase II Alternative 2 buildout.

CEQA Project Status: An Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared for this project pursuant to the provisions of CEQA. The IS/MND determined that the proposed project would result in less-than-significant impacts, and therefore a Mitigated Negative Declaration is proposed. The Public Review Draft IS/MND and all related analysis are available on the City's website at https://www.cityofmerced.org/depts/cd/planning/documents_and_handouts/default.asp

Public Hearing: The Planning Commission will consider the proposed project and IS/MND at a public meeting tentatively scheduled for January 23, 2019. The Planning Commission hearing will be held at 7:00 p.m. at the City Council Chambers in the Merced Civic Center located at 678 West 18th Street, Merced, CA 95340.

Public Review Period: A 30-day public review period will begin on November 19, 2018. Written comments must be mailed, submitted in person or via email to the contact person identified below no later than 5:00 p.m. on December 18, 2018.

Julie Nelson, Associate Planner
City of Merced Planning Division
678 West 18th Street
Merced, CA 95340
Fax: (209) 385-6858
Email: nelsonj@cityofmerced.org

City staff encourages your agency or organization to review the IS/MND and offer comments during the public review period. If convenient, City of Merced staff would greatly appreciate receiving written comments at the earliest possible time. This would greatly assist us in meeting the project schedule. You are also welcome to contact us at (209) 385-6858 with any questions you might have.

Sincerely,

Kim Espinosa
Planning Manager

PUBLIC REVIEW DRAFT

MERCED MALL EXPANSION PROJECT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

MERCED, CALIFORNIA

Submitted to:

Kim Espinosa, Planning Manager
City of Merced Planning & Permitting
678 West 18th Street
Merced, California 95340

Prepared by:

LSA
7086 North Maple Avenue, Suite 104
Fresno, California 93720
559.490.1210

Project No. MED1801

LSA

November 2018

This page intentionally left blank

TABLE OF CONTENTS

APPENDICES

FIGURES AND TABLES

FIGURES

TABLES

LIST OF ABBREVIATIONS AND ACRONYMS

µg/m^3	micrograms per cubic meter
AB	Assembly Bill
AQMD	air quality management district
BAU	Business-As-Usual
BMP	Best Management Practices
BSA	Biological Study Area
CalEEMod	California Emissions Estimator Model version 2016.3.2
CALFIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CBES	Commercial Buildings Energy Consumption Survey
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFGC	California Fish and Game Code
CH_4	methane
City	City of Merced
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide

CO_2e	CO_2 equivalents
Court	California Supreme Court
CRHR	California Register of Historic Resources
CWA	Federal Clean Water Act
dB	decibel
dBA	A-weighted decibels
DTSC	California Department of Toxic Substances Control
EIA	U.S. Energy Information Administration
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
GAMAQI	Guidance for Assessing and Mitigating Air Quality Impacts
GHG	greenhouse gas
GLA	gross leasable area
GWP	Global Warming Potential
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HFCs	hydrofluorocarbons
I-5	Interstate 5
IS/MND	Initial Study/Mitigated Negative Declaration
ITE	Institute of Transportation Engineers
L_{dn}	day-night average level
L_{eq}	equivalent continuous sound level
L_{max}	maximum instantaneous noise level
L_{min}	minimum instantaneous noise level

LOS	level of service
MBTA	Migratory Bird Treaty Act
MCAG	Merced County Association of Governments
MFD	Merced Fire Department
MGD	million gallons per day
MID	Madera Irrigation District
MPD	Merced Police Department
MRZ	mineral resource zone
N_2O	nitrous oxide
NEV	neighborhood electric vehicle
NO_2	nitrogen dioxide
NO_x	nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
O&M	operation and maintenance
O_3	ozone
OPR	Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Administration
Ozone Plan	2013 Plan for the Revoked 1-Hour Ozone Standard
P-D	Planned Development #1 zoning district
Pb	lead
PFCs	perfluorocarbons
PG&E	Pacific Gas and Electric
$PM_{2.5}$	fine particulate matter
PM_{10}	respirable particulate matter

ppb	parts per billion
PRC	Public Resources Code
R/C	Regional/Community Commercial
ROG	reactive organic gases
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SF_6	sulfur hexafluoride
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District
SO_2	sulfur dioxide
SO_x	sulfur oxides
SR	State Route
State Water Board	State Water Resources Control Board
SWPPP	Storm Water Pollution Prevention Plan
TACs	toxic air contaminants
TDML	total maximum daily load
TIA	Traffic Impact Analysis
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
UWMP	Urban Water Management Plan
VMT	Vehicle Miles Traveled
WPCP	Water Pollution Control Preparation
WWTP	Wastewater Treatment Plant

1.0 PROJECT INFORMATION

1. Project Title

Merced Mall Expansion Project

2. Lead Agency Name and Address

City of Merced Planning & Permitting
678 West 18th Street
Merced, CA 95340

3. Contact Person and Phone Number

Kim Espinosa, Planning Manager OR Julie Nelson, Associate Planner
(209) 385-6858
espinosak@cityofmerced.org or nelsonj@cityofmerced.org

4. Project Location

Merced Mall, 851 West Olive Avenue, Merced, CA 95348

5. Project Sponsor's Name and Address

Bill Kenney
The Kenney Company
824 Harbor Island Drive
Newport Beach, CA 92660

6. General Plan Designation

Regional/Community Commercial (RC)

7. Zoning

Planned Development #1 (P-D)

8. Description of Project

The proposed project would increase leasable retail area and construct a new movie theater at one of two possible locations located within the Merced Mall shopping center. Both movie theater locations are described below, and upon further consideration, the project applicant will select one alternative to construct and operate.

Phase I of the proposed project would expand the buildings located along the southern elevation of the shopping center south towards West Olive Avenue by an additional 80 feet. The

new frontage would be constructed in an updated and contemporary design. The height of the new frontage would increase the building mass and would be approximately 50 feet. This would increase the GLA of the project site by approximately 50,000 square feet, for a total GLA of 588,097 square feet. The southern parking lot would be reconfigured, repaved, restriped, and relandscaped. The total parking within the project site under Phase I would decrease by 232 parking spaces for a total of 2,867 parking spaces.

Phase II of the proposed project would include construction of a 72,000-square-foot movie theater containing up to 3,000 seats. The project applicant has proposed two alternatives under Phase II which would result in the location of a new movie theater at one of two locations within the project site.

Phase II Alternative 1 would add an at-grade 72,000-square-foot theater between the existing JC Penny and Kohl's stores in the main shopping center building. In addition, this Phase would remove the enclosed mall roof between JC Penney and Kohl's, and result in a pedestrian mall and open courtyard in front of the new theater. The design and height of the movie theater addition would be integrated into the existing shopping center building and would be consistent with the exterior additions completed under Phase I. The height of the movie theater would be approximately 50 feet in height. The existing 22,680-square-foot United Artists movie theater would be demolished and replaced with a new retail building of similar size. The total GLA of the project site after Phase I and Phase II Alternative 1 would be approximately 660,097 square feet. The total number of parking spaces within the project site following completion of Phase I and Phase II Alternative 1 would decrease by 232 parking spaces for a total of 2,810 parking spaces.

Phase II Alternative 2 would demolish the existing United Artists Theater and two retail stores located along the eastern boundary of the project site, and would construct a 72,000-square-foot at-grade theater at that location. The design and height of the movie theater would be consistent with the exterior additions completed under Phase I, and would be approximately 50 feet in height. The existing theater is approximately 22,680 square feet in size, and the existing retail stores are approximately 25,416 square feet in size. As a result, the total GLA would increase by approximately 23,904 square feet for a total GLA of 612,001 square feet under Phase I and Phase II Alternative 2. Construction of Phase II Alternative 2 would include reconfigured parking for the theater. The existing 3,099 parking spaces would decrease by 124 parking spaces under Phase I and Phase II Alternative 2, resulting in a total of 2,975 parking spaces under Phase II Alternative 2 buildout.

9. Surrounding Land Uses and Setting:

Retail and commercial uses are directly adjacent to the project site to the west, south and east. City of Merced Fire Station 53 is located directly north of the project site along Loughborough Drive. Multi-family residential uses are located north of the project site. Merced High School is located on West Olive Avenue, approximately 0.3 miles east of the project site.

10. Other Public Agencies Whose Approval is Required (i.e., permits, financial approval, or participation agreements):

The City is the Lead Agency with discretionary authority over the project. No other agencies are anticipated to require discretionary approvals for the project.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resource Code section 21080.3.1? If so, has consultation begun?

The City has not been contacted by any California Native American tribes requesting to be notified when projects are proposed in Merced. As such, no tribes have requested consultation pursuant to Public Resources Code section 21080.3.1.

This page intentionally left blank

2.0 PROJECT DESCRIPTION

The following describes the proposed Merced Mall Expansion Project (project). This section includes a summary description of the project's location and existing site characteristics, required approvals, and entitlements. The City of Merced (City) is the lead agency for review of the project under the California Environmental Quality Act (CEQA).

2.1 PROJECT SITE

The following section describes the location and characteristics of the project site and provides a brief overview of the existing land uses within and in the vicinity of the project site.

2.1.1 Location

The approximately 52-acre project site is located at 851 West Olive Avenue in the City of Merced, Merced County. The project site is bounded by West Olive Avenue to the south, R Street to the west, Loughborough Drive, office buildings, and City of Merced Fire Station 53 to the north, and M Street and office buildings to the east.

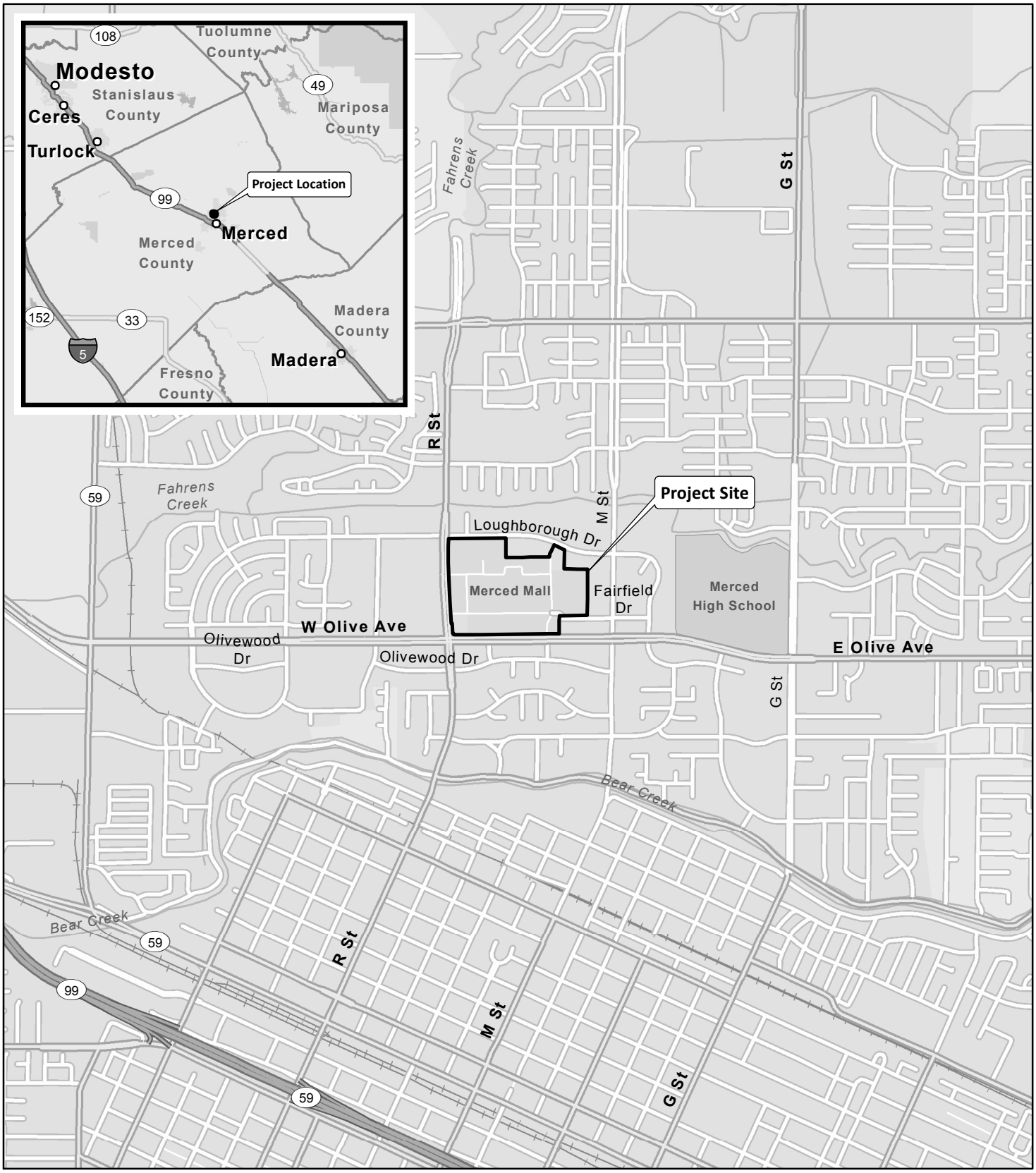
Regional vehicular access to the project site is provided by West Olive Avenue. In addition, State Route (SR) 59 is located to the west of the project site, and SR 99 is located to the south and east of the project site. The Bus, Merced's Regional Transit System, provides transit service to the project site. Six stops along Loughborough Drive between R Street and M Street provide stops for three routes (M1, M2, M3), and two stops along M Street between Loughborough Drive and West Olive Avenue provide stops for the UC Merced Route.

Figure 2-1 shows the project site's regional and local context. Figure 2-2 depicts an aerial photograph of the project site and identifies surrounding land uses.

2.1.2 Site Characteristics and Current Site Conditions

Merced Mall is a single level enclosed shopping center with Sears, JC Penney, and Kohl's department stores. In addition, a Target store is located near the northeast corner of the project site. A seven-screen United Artists Theater, approximately 22,680 square feet in size, currently exists on the east side of the project site which is not attached to the main shopping center building. A Michael's Arts and Crafts store is located adjacent to the theater within the project site.

The project site is generally level and consists of six whole parcels (Assessor's Parcel Numbers [APNs] 236-220-022, -029, -030, -031, -032, -038), and portions of four parcels (APNs 236-310-007 and 236-220-014, -015, -016). The project site is currently developed with an existing shopping center and three outbuildings containing restaurants, small retail spaces, offices and a movie theater, totaling a gross leasable area (GLA) of 538,097 square feet. The project site contains 3,099 parking spaces. Vegetation within the project site includes mature trees located throughout the parking area, and streetscape landscaping including trees and shrubs along the boundary of the project site.



LSA

FIGURE 2-1

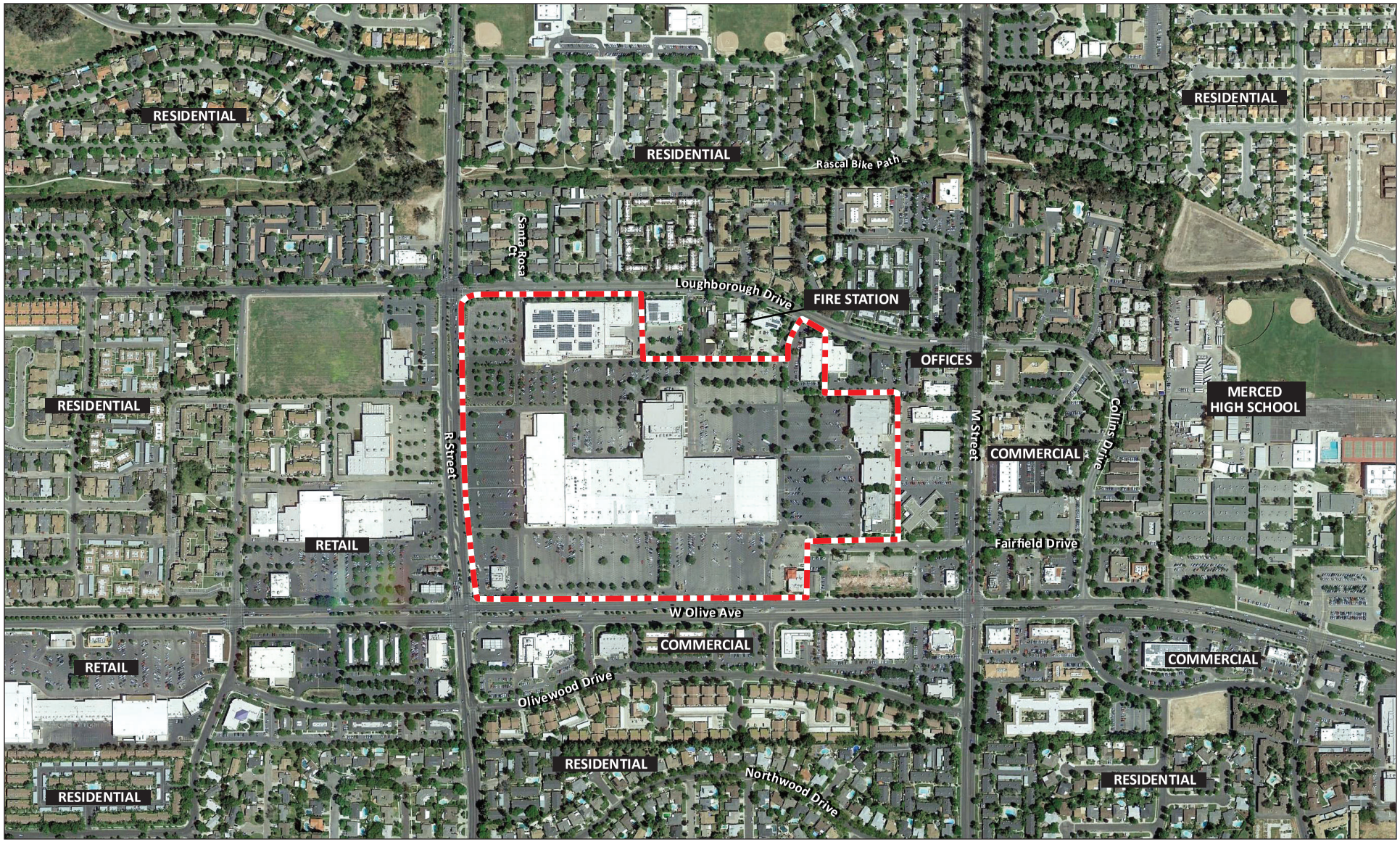
N

0 1000 2000
FEET

SOURCE: ESRI STREETMAP NORTH AMERICA (2012).

I:\MED1801 Merced Mall\figures\Fig_2-1.ai (5/31/18)

Merced Mall Project IS/MND
Project Location and Regional Vicinity Map



LSA

FIGURE 2-2

0 400 800
FEET

N

Project Site

Merced Mall Project IS/MND

Aerial Photograph of Project Site and Surrounding Land Uses

SOURCES: GOOGLE EARTH, 5/2/17; LSA, 2018.

I:\MED1801 Merced Mall\figures\Fig_2-2.ai (6/6/18)

This page intentionally left blank

2.1.3 Existing General Plan and Zoning

The project site is designated Regional/Community Commercial (RC) in the Merced 2030 General Plan. This land use designation is intended to provide community and regional commercial centers to serve a variety of retail goods, general merchandise, apparel, and home furnishings, with one or more major department stores as key tenants. The project site is located in a Planned Development #1 (P-D) zoning district which allows for high quality development that deviates from standards and regulations applicable to other zoning districts within Merced. The P-D zoning districts are intended to promote creativity in building design, flexibility in permitted land uses, and innovation in development concepts, and in all P-D zoning districts, permitted land uses shall conform to the applicable general plan designation.

2.1.4 Surrounding Land Uses

The project site is located along the West Olive Avenue corridor that is predominantly developed with commercial, retail uses and multi-family residential uses. As shown in Figure 2-2, the retail and commercial uses are directly adjacent to the project site to the west, south and east. City of Merced Fire Station 53 is located directly north of the project site along Loughborough Drive. Multi-family residential uses are located north of the project site. Merced High School is located on West Olive Avenue, approximately 0.3 miles east of the project site.

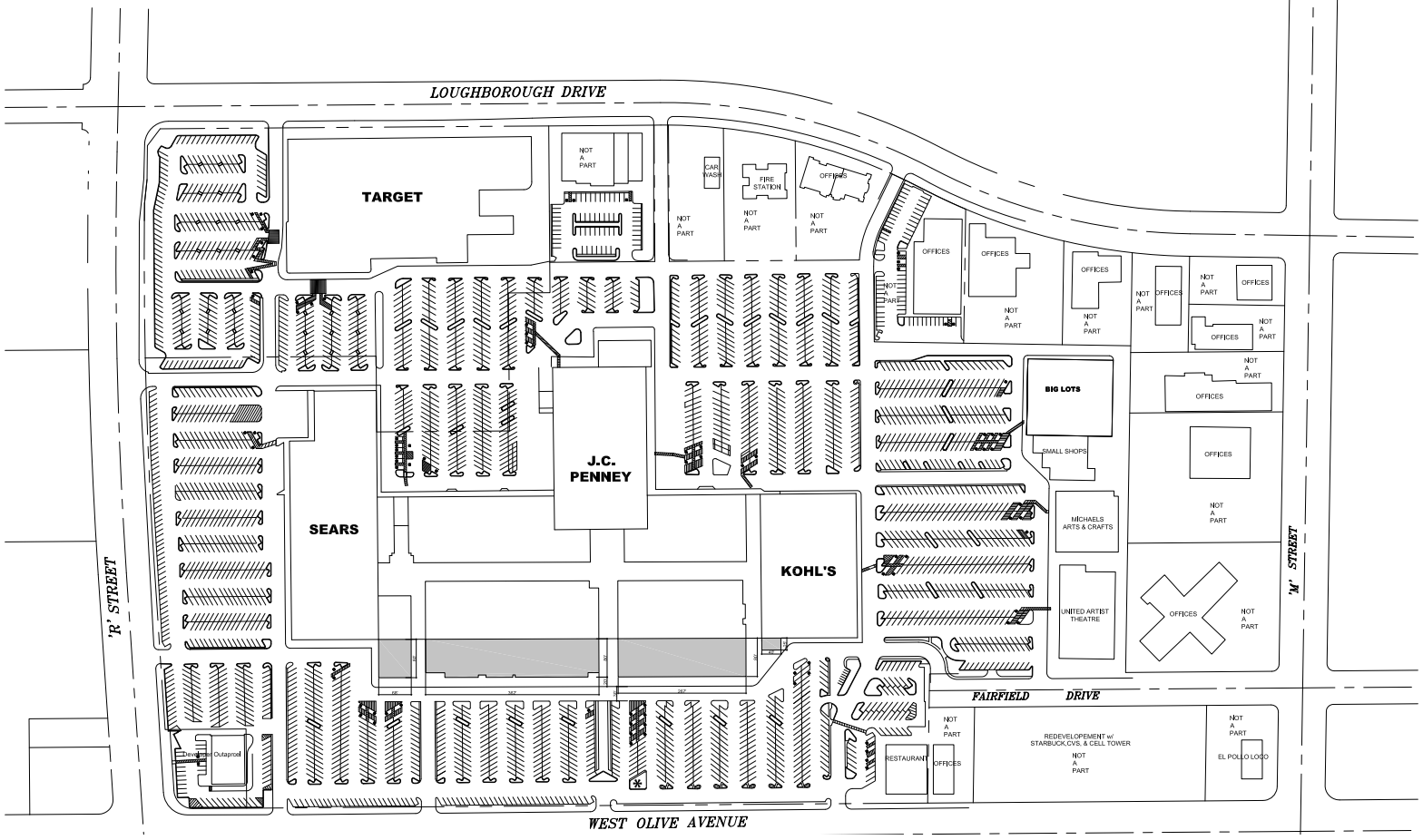
2.2 PROPOSED PROJECT

This section provides a description of the proposed project as identified in the materials provided by Codding (the project applicant), dated March 2018. The project applicant proposes to improve the project site by increasing leasable retail area and constructing a new movie theater at one of two possible locations within the project site. Both movie theater locations are described below, and upon further consideration, the project applicant will select one alternative to construct and operate.

2.2.1 Building Program

2.2.1.1 Phase I

Phase I of the proposed project would expand the buildings located along the southern elevation of the shopping center south towards West Olive Avenue by an additional 80 feet. The new frontage would be constructed in an updated and contemporary design. The height of the new frontage would increase the building mass and would be approximately 50 feet. This would increase the GLA of the project site by approximately 50,000 square feet, for a total GLA of 588,097 square feet. The vacant retail space located to the east of the main mall entrance (previously occupied by CVS) would be reconfigured and leased to new retailers and restaurants, some of which would have storefronts facing the parking lot adjacent to West Olive Avenue. The southern parking lot would be reconfigured, repaved, restriped, and relandscaped. As a result of the increase in GLA and reconfigured parking, the total parking within the project site under Phase I would decrease by 232 parking spaces for a total of 2,867 parking spaces. Figure 2-3 shows the proposed site plan for Phase I.



LSA

FIGURE 2-3

0 100 200
FEET

N

Building Expansion Proposed Under Phase I

* Approximate Location of Proposed Reader Board Sign

Merced Mall Project IS/MND

Proposed Site Plan - Phase 1

SOURCE: CODDING, MARCH 2018.

I:\MED1801 Merced Mall\figures\Fig_2-3.ai (6/6/18)

Phase I of the project would include a reader board sign on West Olive Avenue, south of the central entrance to the shopping center, at the approximate location of the existing sign.

2.2.1.2 Phase II

Phase II of the proposed project would include construction of a 72,000-square-foot movie theater containing up to 3,000 seats. The project applicant has proposed two alternatives under Phase II which would result in the location of a new movie theater at one of two locations within the project site.

Alternative 1

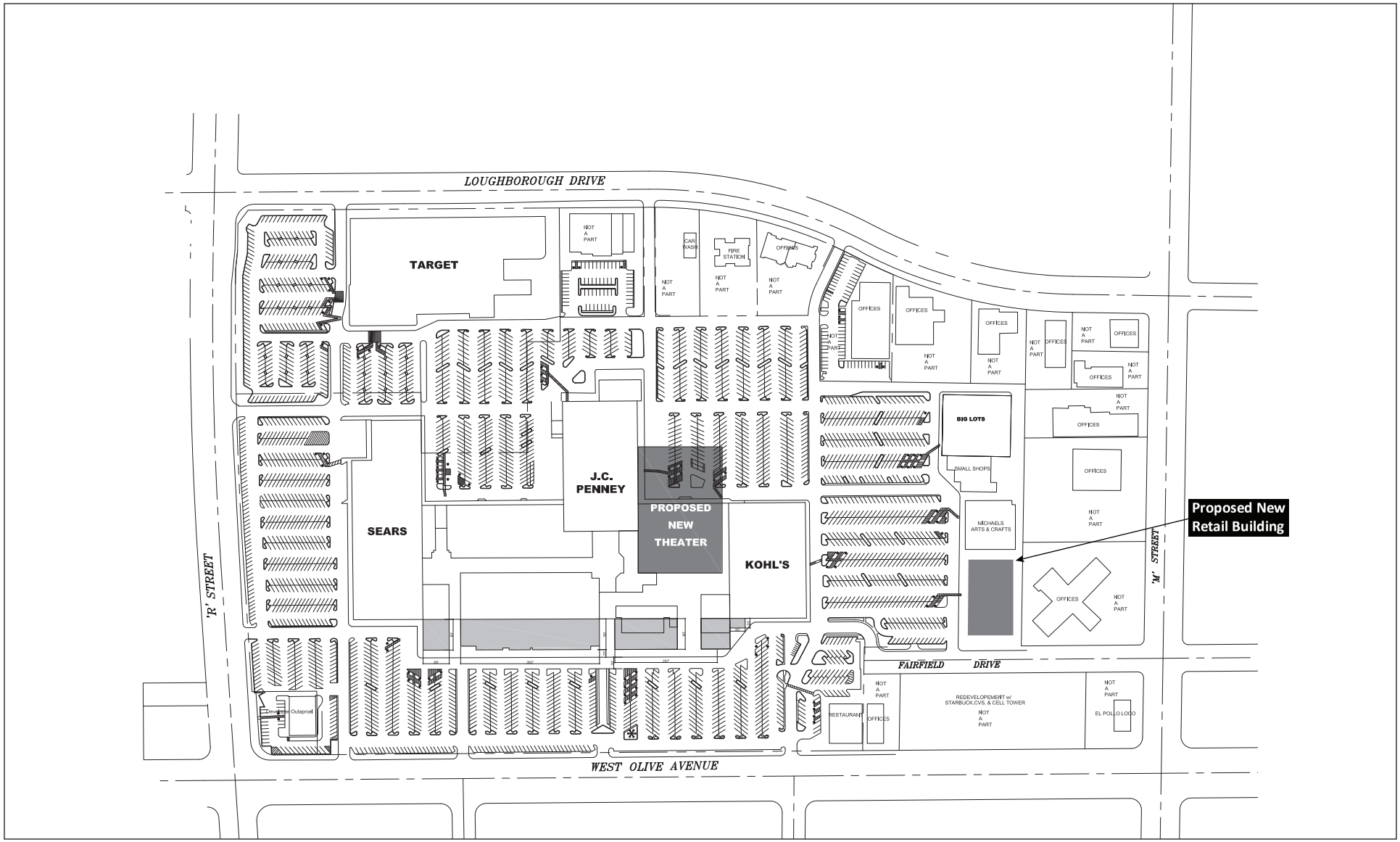
Phase II Alternative 1 would add an at-grade 72,000-square-foot theater between the existing JC Penny and Kohl's stores in the main shopping center building. In addition, this Phase would remove the enclosed mall roof between JC Penney and Kohl's, and result in a pedestrian mall and open courtyard in front of the new theater. The design and height of the movie theater addition would be integrated into the existing shopping center building and would be consistent with the exterior additions completed under Phase I. The height of the movie theater would be approximately 50 feet in height. This alternative would also include the demolition of the existing 22,680-square-foot United Artists Theater and construction of retail building of approximately the same size at the same location. The design and height of the new retail building would be consistent with the exterior additions completed under Phase I. The total GLA of the project site after Phase I and Phase II Alternative 1 would be approximately 660,097 square feet.

The total number of parking spaces within the project site following completion of Phase I and Phase II Alternative 1 would decrease by 232 parking spaces for a total of 2,810 parking spaces. Figure 2-4 shows the proposed site plan for Phase II Alternative 1.

Alternative 2

Phase II Alternative 2 would demolish the existing United Artists Theater and two retail stores located along the eastern boundary of the project site, and would construct a 72,000-square-foot at-grade theater at that location. The design and height of the movie theater would be consistent with the exterior additions completed under Phase I, and would be approximately 50 feet in height. The existing theater is approximately 22,680 square feet in size, and the existing retail stores are approximately 25,416 square feet in size. As a result, the total GLA would increase by approximately 23,904 square feet for a total GLA of 612,001 square feet under Phase I and Phase II Alternative 2. Figure 2-5 shows the proposed site plan for Phase II Alternative 2.

Construction of Phase II Alternative 2 would include reconfigured parking for the theater. The existing 3,099 parking spaces would decrease by 124 parking spaces under Phase I and Phase II Alternative 2, resulting in a total of 2,975 parking spaces under Phase II Alternative 2 buildout.



LSA

FIGURE 2-4

0 100 200
FEET

N

Building Expansion Proposed Under Phase I

Movie Theater and New Retail Building Proposed Under Phase II Alternative 1

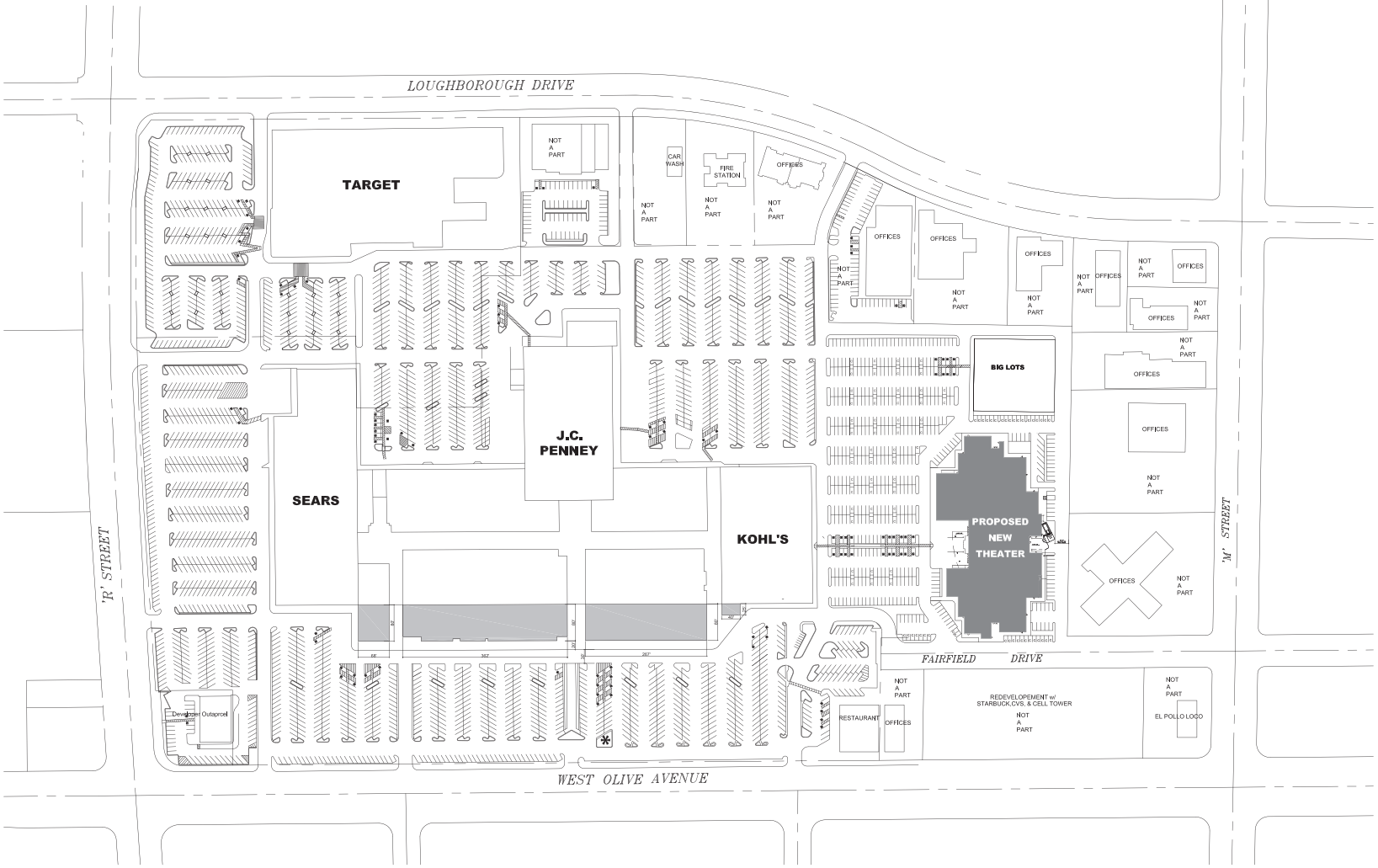
* Approximate Location of Proposed Reader Board Sign

Merced Mall Project IS/MND

Proposed Site Plan - Phase 2 Alternative 1

SOURCE: CODDING, MARCH 2018.

I:\MED1801 Merced Mall\figures\Fig_2-4.ai (11/1/18)



LSA

FIGURE 2-5

0 100 200
FEET

N

Building Expansion Proposed Under Phase I

Movie Theater Proposed Under Phase II Alternative 2

* Approximate Location of Proposed Reader Board Sign

Merced Mall Project IS/MND

Proposed Site Plan - Phase 2 Alternative 2

SOURCE: CODDING, MARCH 2018.

I:\MED1801 Merced Mall\figures\Fig_2-5.ai (6/6/18)

2.2.2 Open Space and Landscaping

The proposed project would upgrade the perimeter landscaping to include new vegetation and drought-tolerant plantings. As a result of the expansion under Phase I, 14 trees would be removed in order to accommodate development. In addition, 10 trees would be removed under Phase II Alternative 1, and 13 trees would be removed under Phase II Alternative 2.

2.2.3 Access, Circulation, and Parking

The current configuration of vehicle driveways and pedestrian access would not be altered as a result of the proposed project. The project site currently has 11 vehicle ingress/egress driveways providing access to and from West Olive Avenue, R Street, Loughborough Drive and Fairfield Drive. As noted above, the parking lot facing West Olive Avenue would be reconfigured, repaved, and restriped.

Following construction of Phase I, the total number of parking spaces in the project site would be 2,867 parking spaces. Following construction of Phase I and Phase II Alternative 1, the total number of parking spaces in the project site would total 2,810 parking spaces. Following construction of Phase I and Phase II Alternative 2, the total number of parking spaces would be 2,975 parking spaces.

2.2.4 Utilities and Infrastructure

The project site is located in an urban area with existing utilities and infrastructure. The proposed project would be required to utilize the following utility connections to the satisfaction of the applicable utility providers: water, wastewater, stormwater drainage, and power services.

2.2.4.1 Water

The City owns and operates its own water distribution system and provides water service to all residential, commercial, and industrial users within the incorporated City limits, including the project site. A 16-inch distribution main is located within the right-of-way of M Street and West Olive Avenue. In addition, a 10-inch water line and an 8-inch water line are located within the project site. The proposed project under both phases would continue to utilize existing service connections.

2.2.4.2 Wastewater

The City owns and operates the wastewater collection and treatment system that serves all residential, commercial, and industrial users within the incorporated City limits. The City operates a Wastewater Treatment Plant (WWTP) that is designed to treat up to 12 million gallons of wastewater per day (MGD). A sanitary sewer main between 21 inches and 30 inches in diameter is located within the R Street right-of-way. In addition, a sewer line between 10 inches and 12 inches is located within the project site. The proposed project under both phases would continue to utilize existing service connections.

2.2.4.3 Stormwater

The City owns and operates storm drainage facilities that serve all of the residential, commercial, and industrial users within the incorporated City limits. The storm drainage collection system consists of 112 miles of underground storm drain lines, underground storage pipes, and 141 acres of detention ponds. A 42-inch storm drain is located within the project site and connects to a storm drain within the West Olive Avenue right-of-way. The proposed project under both phases would continue to utilize existing service connections.

The project site currently includes approximately 2.2 million square feet (49.68 acres) of impervious surface. As result of the proposed project, an increase in impervious surfaces would be minimal given that the project site is mostly built out aside from planting areas located in the parking lot and the perimeter of the project site. As required by National Pollutant Discharge Elimination System (NPDES), a Stormwater Pollution Prevention Plan (SWPPP) would be developed prior to any ground disturbance at the project site and would include practices to reduce erosion and surface water contamination during construction.

2.2.4.4 Electricity and Natural Gas

Electricity and natural gas services are provided to the project site by Pacific Gas and Electric (PG&E). The proposed project under both phases would continue to utilize existing service connections.

2.2.5 Demolition and Construction

Development of the project would result in the demolition and reconstruction of the existing southern façade of shopping center. Approximately 4,920 cubic yards of construction debris would be collected and off-hauled from the project site.

Demolition and construction of Phase I is anticipated to occur over approximately 20 months, starting in April 2019 and ending in January 2021.

The timing of the construction of the selected Phase II alternative would be dependent on market conditions.

Under Phase II Alternative 1, approximately 5,910 cubic yards of construction debris would be collected and off-hauled from the project site. Demolition and construction of Phase II Alternative 1 is anticipated to occur over approximately 20 months.

Under Phase II Alternative 2, approximately 4,200 cubic yards of construction debris would be collected and off-hauled from the project site. Demolition and construction of Phase II Alternative 2 is anticipated to occur over approximately 24 months.

2.3 APPROVALS/PERMITS

While the City is the CEQA Lead Agency for the project, other agencies also have discretionary authority related to the project and approvals, or serve as a responsible and/or trustee agency in connection to the proposed project. A list of these agencies and potential permits and approvals that may be required is provided below.

- City of Merced, Adoption of the IS/MND for the Merced Mall Expansion Project
- City of Merced, Site Utilization Plan Revision to Planned Development #1
- City of Merced, Sign Ordinance Amendment
- City of Merced, demolition, grading and building permit approval
- City of Merced approval for water, wastewater, and stormwater connections
- PG&E electricity and gas connection approvals

3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist in Chapter 3.0.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☐ Hydrology/Water Quality
☐ Land Use/Planning	☐ Mineral Resources	☐ Noise
☐ Population/Housing	☐ Public Services	☐ Recreation
☐ Transportation/Traffic	☐ Tribal Cultural Resources	☐ Utilities/Service Systems
☐ 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.

☒ 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 ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

11/14/18

Date

This page intentionally left blank

4.0 CEQA ENVIRONMENTAL CHECKLIST

4.1 AESTHETICS

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

4.1.1 Impact Analysis

a. Would the project have a substantial effect on a scenic vista?

A scenic vista is generally defined as a public vantage point with an expansive view of a significant landscape feature. As described in the General Plan, the City of Merced has developed along routes and corridors which have come to be part of the City's identity.[1] The City has designated many of these scenic routes for special development review regulation. The project site is not included in the City's designated Scenic Corridors, as designated in Implementing Action 1.3.b of the General Plan.

The proposed project site is currently developed with the existing Merced Mall. The proposed project would include improvements to the existing Merced Mall by increasing leasable retail area and constructing a new movie theater. The height of the new buildings would be generally consistent with the height of the existing buildings, with a height of approximately 50 feet. The project site is not readily visible from any scenic vista, nor would the project block public views of a scenic vista. Therefore, the proposed project would have ***no impact***.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The California Department of Transportation's (Caltrans) Landscape Architecture Program administers the Scenic Highway Program, contained in the State Streets and Highways Code, Sections 260–263. State highways are classified as either Eligible for Scenic Designation, Officially Designated, or Connecting Federal Highway. Within Merced County, there are two Officially designated State Scenic Highways (Interstate 5 [I-5; north of State Route 152{SR152}] and SR 52

[1] Merced, City of, 2012. *Merced Vision 2030 General Plan*. January 3.

[west of I-5]).[2] Both of these State Scenic Highways are located approximately 34 miles west of the project site. The project site is not visible from either State Scenic Highways; therefore the proposed project does not have the potential to damage scenic resources from designated scenic highways, and will have ***no impact***.

c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

The project site is currently developed with the existing Merced Mall. The proposed project would include improvements to the existing Merced Mall by increasing leasable retail area and constructing a new movie theater. As described in the Project Description, Phase I of the proposed project would expand the buildings located along the southern elevation of the shopping center south towards West Olive Avenue by an additional 80 feet. The new frontage would be constructed in an updated and contemporary design. The height of the new frontage would be generally consistent with the height of the existing shopping center building, with a height of approximately 50 feet.

In addition, as described in the Project Description, Phase II would include construction of a 72,000-square-foot movie theater containing up to 3,000 seats. The project applicant has proposed two alternatives under Phase II which would result in the location of a new movie theater at one of two locations within the project site. Phase II Alternative 1 would add an at-grade 72,000-square-foot theater between the existing JC Penny and Kohl's stores in the main shopping center building. In addition, this Phase would remove the enclosed mall roof between JC Penney and Kohl's, and result in a pedestrian mall and open courtyard in front of the new theater. The existing theater is approximately 22,680 square feet in size and would be demolished and replaced with a building of the same size to be used for retail uses. The design and height of the movie theater and retail addition would be integrated into the existing shopping center building and would be consistent with the exterior additions completed under Phase I.

Phase II Alternative 2 would demolish the existing United Artists Theater and two retail stores located along the eastern boundary of the project site, and would construct a 72,000-square-foot at-grade theater at that location. The design and height of the movie theater would be consistent with the exterior additions completed under Phase I.

Although the proposed additions would change the massing of the building frontage by creating the pedestrian mall and open courtyard or by constructing a new movie theater on the east side of the project site, the design of the additions would be contemporary and not result in a consistent visual character within the project site. Although the character of the project site would change, the project would not substantially degrade the visual character or quality of the site and its surroundings. Therefore, the proposed project would have a ***less-than-significant impact***.

[2] Caltrans, 2011. California Scenic Highway Mapping System, Merced County. Website: www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm (accessed August 2018).

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The project site is located in an urbanized area, which is subject to preexisting exterior lighting from surrounding development and existing street lighting. The proposed project would introduce new sources of light and glare to the area in the form of new windows and exterior safety and security lighting. However, new sources of light and glare associated with the project would not be substantial in the context of existing lighting sources. In addition, daytime glare would not be substantial because no highly-reflective glass elements or building material are proposed as part of the project.

Compliance with the Building Code and Title 24 standards would ensure that light and glare impacts from the proposed project would be ***less than significant***.

4.2 AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources would result in significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, would result in significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection (CALFIRE) regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board (CARB).

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

4.2.1 Impact Analysis

a. Would the project 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?

The project site is located within an urbanized area of Merced. There are no agricultural uses located within or adjacent to the project site. Additionally, the site is classified as "Urban and Built-Up Land" by the State Department of Conservation.[3] Therefore, development of the proposed project would not convert agricultural land to a non-agricultural use. The proposed project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use and there would be ***no impact***.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

The project site is designated Regional/Community Commercial (RC) in the General Plan.[4] The project site is located in a Planned Development #1 (P-D) zoning district which allows for high quality development that deviates from standards and regulations applicable to other zoning districts within Merced. The project site is not subject to a Williamson Act contract.[5] Therefore, development of the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and the proposed project would have ***no impact***.

c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

The project site is located within an existing urban area and is zoned within a P-D district within the City of Merced. The proposed project would not conflict with the existing zoning for, or cause rezoning of, forest land or conversion of forest land to non-forest uses. Therefore, the proposed project would have ***no impact***.

d. Would the project result in the loss of forest land or conversion of forestland to non-forest use?

Please refer to Section 4.2.1.c. The proposed project would not result in the loss of forest land or conversion of forest land to non-forest uses. Therefore, the proposed project would have ***no impact***.

---

3 California, State of, 2014. *Department of Conservation. California Important Farmland Finder.* Website: maps.conservation.ca.gov/dlrp/ciff (accessed August 2018).

4 Merced, City of, 2012. *Merced Vision 2030 General Plan*. January 3.

5 California, State of, 2015. *Merced County Williamson Act FY 2013/2014* (Map).

e. Would the project 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?

Please refer to Sections 4.2.1.a and 4.2.1.c. The project site is located within an existing urban environment and would not result in the conversion of farmland to non-agricultural uses or forest land to non-forest uses. The proposed project would not adversely affect agricultural or forestry resources and there would be ***no impact***.

4.3 AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e. Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

4.3.1 Impact Analysis

The proposed project is located within the City of Merced. Merced is part of the San Joaquin Valley Air Basin (SJVAB), which is within the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). The SJVAPCD is responsible for air quality regulation within the eight-county San Joaquin Valley region.

Both the California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (USEPA) have established health-based Ambient Air Quality Standards for six criteria air pollutants: carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and suspended particulate matter (PM_{10} and $PM_{2.5}$). These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Two criteria pollutants, O_3 and NO_2, are considered regional pollutants because they (or their precursors) affect air quality on a regional scale. Pollutants such as PM, CO, SO_2, and Pb are considered local pollutants because they tend to accumulate in the air locally. The San Joaquin Valley Air Basin is under State non-attainment status for ozone and particulate matter (PM_{10} and $PM_{2.5}$) standards. The Air Basin is also classified as non-attainment for both the federal ozone 8-hour standard and the federal $PM_{2.5}$ 24-hour standard.

A threshold of significance is defined by the SJVAPCD in its *Guidance for Assessing and Mitigating Air Quality Impacts* (GAMAQI)[6] as an identifiable quantitative, qualitative, or performance level of a particular environmental effect. Non-compliance with a threshold of significance means the effect will normally be determined to be significant. Compliance with a threshold of significance means the effect normally will be determined to be less than significant. The SJVAPCD has established thresholds of significance for criteria pollutant emissions generated during construction and operation of projects as shown in Table 4.A below.

Table 4.A: SJVAPCD Construction and Operation Thresholds of Significance (Tons per Year)

	CO	NO_x	ROG	SO_x	PM_{10}	$PM_{2.5}$
Construction Thresholds	100	10	10	27	15	15
Operation Thresholds	100	10	10	27	15	15

Source: SJVAPCD, 2015. Guidance for Assessing and Mitigating Air Quality Impacts. March 19.

The emissions thresholds in the SJVAPCD GAMAQI were established based on the attainment status of the air basin in regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety, these emission thresholds are regarded as conservative and would overstate an individual project's contribution to health risks.

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

CEQA requires that certain proposed projects be analyzed for consistency with the applicable air quality plan. An air quality plan describes air pollution control strategies to be implemented by a city, county, or region classified as a non-attainment area. The main purpose of the air quality plan is to bring the area into compliance with the requirements of the federal and State air quality standards. To bring the SJVAB into attainment, the SJVAPCD has developed the 2013 Plan for the Revoked 1-Hour Ozone Standard (Ozone Plan), adopted on September 19, 2013.[7] The SJVAPCD also adopted the 2016 Plan for the 2008 8-Hour Ozone Standard in June 2016 to satisfy Clean Air Act requirements and ensure attainment of the 75 parts per billion (ppb) 8-hour ozone standard.[8]

To assure the SJVAB's continued attainment of the USEPA PM_{10} standard, the SJVAPCD adopted the 2007 PM_{10} Maintenance Plan in September 2007.[9] SJVAPCD Regulation VIII (Fugitive PM_{10}

6 San Joaquin Valley Air Pollution Control District, 2015. *Guidance for Assessing and Mitigating Air Quality Impacts*. March 19. Website: www.valleyair.org/transportation/ceqa_idx.htm (accessed August 2018).

7 San Joaquin Valley Air Pollution Control District, 2013. *2013 Plan for the Revoked 1-Hour Ozone Standard*. September 19. Website: www.valleyair.org/Air_Quality_Plans/Ozone-OneHourPlan-2013.htm (accessed August 2018).

8 San Joaquin Valley Air Pollution Control District, 2016. *2016 Plan for the 2008 8-Hour Ozone Standard*. June 16. Website: www.valleyair.org/Air_Quality_Plans/Ozone-Plan-2016.htm (accessed August 2018).

9 San Joaquin Valley Air Pollution Control District, 2007. *2007 PM_{10} Maintenance Plan and Request for Redesignation*. Available online at: www.valleyair.org/Air_Quality_Plans/docs/Maintenance%20Plan10-25-07.pdf (accessed August 2018).

Prohibitions) is designed to reduce PM_{10} emissions generated by human activity. The SJVAPCD adopted the2016 Moderate Area Plan for the 2012 $PM_{2.5}$ standard to address the USEPA federal annual $PM_{2.5}$ standard of 12 µg/m^3, established in 2012.[10] In addition, the SJVAPCD is in the process of developing an attainment strategy to address multiple $PM_{2.5}$ standards (1997, 2006, and 2012 $PM_{2.5}$ standards) and a plan to demonstrate maintenance of the 1987 PM_{10} standard as required under the federal Clean Air Act.

For a project to be consistent with SJVAPCD air quality plans, the pollutants emitted from a project should not exceed the SJVAPCD emission thresholds or cause a significant impact on air quality. In addition, emission reductions achieved through implementation of offset requirements are a major component of the SJVAPCD air quality plans. As discussed below, construction of the proposed project would not result in the generation of criteria air pollutants that would exceed SJVAPCD thresholds of significance. Implementation of SJVAPCD Regulation VIII would further reduce construction dust impacts. Operational emissions associated with the proposed project would not exceed SJVAPCD established significance thresholds for CO, nitrogen oxides (NO_x) reactive organic gases (ROG), sulfur oxides (SO_x), PM_{10}, or $PM_{2.5}$ emissions. Therefore, the project would be consistent with the SJVAPCD air quality plans, would not conflict with or obstruct the implementation of the applicable air quality plan, and air quality impacts would be ***less than significant***.

b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

The proposed project would generate air emissions during project construction and operation. Short-term construction emissions would occur in association with construction activities, including demolition, grading, and vehicle/equipment use. Long-term operational emissions are associated with stationary sources and mobile sources. Stationary source emissions result from the consumption of natural gas and electricity. Mobile source emissions result from vehicle trips and result in air pollutant emissions affecting the entire air basin. As noted above, specific criteria for determining whether the potential air quality impacts of a project are significant are set forth by the SJVAPCD.

Short-Term (Construction Emissions). During construction, short-term degradation of air quality may occur due to the release of particulate matter emissions generated by demolition, grading, hauling, and building activities. Emissions from construction equipment are also anticipated and would include CO, NO_x, ROG, directly-emitted particulate matter ($PM_{2.5}$ and PM_{10}), and toxic air contaminants (TACs) such as diesel exhaust particulate matter.

Site preparation and project construction would involve demolition, grading, paving, reconstruction and building activities. Construction-related effects on air quality from the proposed project would be greatest during the site preparation phase because most engine emissions are associated with the excavation, handling, and transport of soils on the site. If not properly controlled, these activities would temporarily generate PM_{10}, $PM_{2.5,}$ and to a lesser extent CO, SO_2, NO_x, and volatile organic compounds. Sources of fugitive dust would include disturbed soils at the construction site and

[10] San Joaquin Valley Air Pollution Control District, 2016. *2016 Moderate Area Plan for the 2012 $PM_{2.5}$ Standard*. Website: http://www.valleyair.org/Air_Quality_Plans/PM25Plans2016.htm (accessed August 2018).

trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, the silt content of soil, wind speed, and the amount of operating equipment. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site. These emissions would be temporary and limited to the immediate area surrounding the construction site.

As discussed in the Project Description, development of the project would result in the demolition and reconstruction of the existing southern façade of shopping center. Under Phase I, approximately 4,920 cubic yards of construction debris would be collected and off-hauled from the project site. Demolition and construction of Phase I is anticipated to occur over approximately 20 months, starting in April 2019 and ending in January 2021. The timing of the construction of the selected Phase II alternative would be dependent on market conditions. Under Phase II Alternative 1, approximately 5,910 cubic yards of construction debris would be collected and off-hauled from the project site. Demolition and construction of Phase II Alternative 1 is anticipated to occur over approximately 20 months. Under Phase II Alternative 2, approximately 4,200 cubic yards of construction debris would be collected and off-hauled from the project site. Demolition and construction of Phase II Alternative 2 is anticipated to occur over approximately 24 months.

The SJVAPCD has established construction emissions thresholds on an annual basis as shown in Table 4.B below. Construction emissions for the proposed project were analyzed using the California Emissions Estimator Model version 2016.3.2 (CalEEMod). Project construction duration and phasing was input into CalEEMod. Other precise details of construction activities are unknown at this time; therefore, default assumptions (e.g., construction fleet activities) from CalEEMod were used. Construction-related emissions are presented in Table 4.B. CalEEMod output sheets are included in Appendix A.

Table 4.B: Project Construction Emissions in Tons Per Year

Project Construction	CO	NO_x	ROG	SO_x	PM_{10}	$PM_{2.5}$
Alternative 1						
Phase I Annual Construction Emissions	1.5	1.9	0.6	0.0	0.3	0.2
Phase II Alternative 1 Annual Construction Emissions	1.9	2.5	0.8	0.0	0.3	0.2
Total Alternative 1 Annual Construction Emissions	**3.4**	**4.4**	**1.4**	**0.0**	**0.6**	**0.4**
SJVAPCD Thresholds	100	10	10	27	15	15
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Alternative 2						
Phase I Annual Construction Emissions	1.5	1.9	0.6	0.0	0.3	0.2
Phase II Alternative 2 Annual Construction Emissions	1.6	2.2	0.6	0.0	0.3	0.2
Total Alternative 2 Annual Construction Emissions	**3.1**	**4.1**	**1.2**	**0.0**	**0.6**	**0.4**
SJVAPCD Thresholds	100	10	10	27	15	15
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: LSA (August 2018).

As shown in Table 4.B, construction emissions would not exceed the SJVAPCD threshold for annual construction emissions for either alternative. In addition to the construction period thresholds of significance, the SJVAPCD has implemented Regulation VIII measures for dust control during construction. These control measures are intended to reduce the amount of PM_{10} emissions during the construction period. Implementation of the following fugitive dust control measures would ensure that the proposed project complies with Regulation VIII and further reduces the short-term construction period air quality impacts.

Mitigation Measure AIR-1: Consistent with SJVAPCD Regulation VIII (Fugitive PM_{10} Prohibitions), the following controls are required to be included as specifications for the proposed project and implemented at the construction site:

- All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover.
- All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
- When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.
- All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.)
- Following the addition of materials to, or the removal of materials from, the surface of out-door storage piles, said piles shall be effectively stabilized of fugitive dust emission utilizing sufficient water or chemical stabilizer/suppressant.

As shown in Table 4.B, the short-term construction emissions associated with the proposed project would be well below SJVAPCD established significance thresholds. Therefore, construction of the proposed project would not result in a violation of air quality standards and this impact would be ***less than significant with mitigation***.

Long-Term Operational Emissions. The project would generate long-term air emissions associated with changes in the permanent use of the project site. These long-term emissions are primarily mobile source emissions that would result from vehicle trips associated with the proposed project. The proposed project would also generate energy emissions, which would result from electricity and natural gas usage. Area sources, such as natural gas heaters, landscape equipment, and use of consumer products such as pressurized air canisters would also result in pollutant emissions.

Emissions associated with the project were calculated using CalEEMod. The annual emissions associated with project operational trip generation, energy and area sources are identified in Table 4.C. All calculation details are provided in Appendix A. The results indicate the project emissions would not exceed the SJVAPCD threshold; therefore, the proposed project would not have a significant effect on regional air quality or result in a violation of air quality standards.

The primary emissions associated with the project are regional in nature, meaning that air pollutants are rapidly dispersed on emission or, in the case of vehicle emissions associated with the project; emissions are released in other areas of the air basin. Because the resulting emissions are dispersed rapidly and contribute only a small fraction of the region's air pollution, air quality in the immediate vicinity of the project site would not substantially change compared to existing conditions.

As shown in Table 4.C, the primary source of emissions associated with the project are mobile source emissions generated by visitor and employee vehicle trips to and from the project site. Alternative 2 would result in lower emissions than those identified for Alternative 1 as it would include the demolition of the existing United Artists Theater and two retail stores, which would generate less traffic emissions.

The long-term operational emissions associated with the proposed project would not exceed SJVAPCD established significance thresholds for CO, NO_x, ROG, SO_x, PM_{10}, or $PM_{2.5}$ emissions for either alternative (shown in Table 4.C). Therefore, the proposed project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation and impacts would be ***less than significant***.

Table 4.C: Project Operational Emissions in Tons Per Year

Project Operational Emissions	CO	NO_x	ROG	SO_x	PM_{10}	$PM_{2.5}$
Alternative 1						
Phase I Area Source Emissions	0.0	0.0	0.2	0.0	0.0	0.0
Phase I Energy Source Emissions	0.0	0.0	0.0	0.0	0.0	0.0
Phase I Mobile Source Emissions	5.3	1.0	0.5	0.0	1.2	0.3
Total Phase I Emissions	**5.3**	**1.0**	**0.7**	**0.0**	**1.2**	**0.3**
Phase II Alternative 1 Area Source Emissions	0.0	0.0	0.4	0.0	0.0	0.0
Phase II Alternative 1 Energy Source Emissions	0.1	0.1	0.0	0.0	0.0	0.0
Phase II Alternative 1 Mobile Source Emissions	7.5	1.3	0.7	0.0	2.2	0.6
Total Phase II Alternative 1 Emissions	**7.6**	**1.4**	**1.1**	**0.0**	**2.2**	**0.6**
Total Alternative 1 Emissions	**12.9**	**2.4**	**1.8**	**0.0**	**3.4**	**0.9**
SJVAPCD Thresholds	100	10	10	27	15	15
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Alternative 2						
Phase I Area Source Emissions	0.0	0.0	0.2	0.0	0.0	0.0
Phase I Energy Source Emissions	0.0	0.0	0.0	0.0	0.0	0.0
Phase I Mobile Source Emissions	5.3	1.0	0.5	0.0	1.2	0.3
Total Phase I Emissions	**5.3**	**1.0**	**0.7**	**0.0**	**1.2**	**0.3**
Phase II Alternative 2 Area Source Emissions	0.0	0.0	0.3	0.0	0.0	0.0
Phase II Alternative 2 Energy Source Emissions	0.1	0.1	0.0	0.0	0.0	0.0
Phase II Alternative 2 Mobile Source Emissions	1.5	1.0	0.2	0.0	0.4	0.1
Total Phase II Alternative 2 Emissions	**1.6**	**1.6**	**0.5**	**0.0**	**0.4**	**0.1**
Total Alternative 2 Emissions	**7.1**	**1.2**	**1.3**	**0.0**	**1.7**	**0.5**
SJVAPCD Thresholds	100	10	10	27	15	15
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: LSA (August 2018).

c. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

CEQA defines a cumulative impact as two or more individual effects, which when considered together, are considerable or which compound or increase other environmental impacts. Therefore, if annual emissions of construction- or operational-related criteria air pollutants exceed any applicable threshold established by the SJVAPCD, the proposed project would result in a cumulatively significant impact. As discussed above, with implementation of Mitigation Measure AIR-1, the proposed project's construction emissions of criteria pollutants are estimated to be below the emissions threshold established for the region. Operational emissions associated with the proposed project would not exceed SJVAPCD established significance thresholds for CO, NO_x, ROG, SO_x, PM_{10}, or $PM_{2.5}$ emissions. Therefore, with implementation of Mitigation Measure AIR-1, the proposed project would not result in a cumulatively considerable contribution to a net increase of any criteria pollutant for which the project region is in non-attainment, and impacts would be ***less than significant***.

d. Would the project expose sensitive receptors to substantial pollutant concentrations?

Construction of the proposed project may expose surrounding sensitive receptors to airborne particulates, as well as a small quantity of construction equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). However, construction contractors would be required to implement measures to reduce or eliminate emissions by following the Regulation VIII, Fugitive PM_{10} Prohibitions as required by Mitigation Measure AIR-1. Project construction emissions would be below the SJVAPCD significance thresholds. Once the project is constructed, the project would not be a significant source of long term operational emissions. Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations during project operation, and with implementation of Mitigation Measures AIR-1, potential impacts associated with project construction would be considered ***less than significant***.

e. Would the project create objectionable odors affecting a substantial number of people?

During construction, the various diesel powered vehicles and equipment in use on-site would create localized odors. These odors would be temporary and are not likely to be noticeable for extended periods of time beyond the project site. The potential for diesel odor impacts is therefore considered less than significant. In addition, the proposed uses that would be developed within the project site are not expected to produce any offensive odors that would result in frequent odor complaints. The proposed project would not create objectionable odors affecting a substantial number of people during project construction or operation, and this impact would be ***less than significant***.

4.4 BIOLOGICAL RESOURCES

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

LSA conducted a biological resources study for the proposed project to assess the site for compliance with the CEQA review process. The following summarizes the biological setting in the vicinity of the proposed project.

Methods. For purposes of the biological analysis, a Biological Study Area (BSA) was established. The BSA, totaling 56.81 acres, is located in the City of Merced and is entirely developed, consisting of the Merced Mall, associated parking lots, and outbuildings. The BSA is bordered by Loughborough Drive to the north, M Street to the east, West Olive Drive to the south, and R Street to the west. The BSA includes lands beyond the proposed project footprint that could potentially be affected by project construction and/or were determined necessary to inventory in order to perform an adequate analysis of impacts to biological resources.

A list of sensitive wildlife and plant species potentially occurring within the BSA was compiled to evaluate the potential impacts resulting from project construction. Sources used to compile the list include the California Natural Diversity Database (CNDDB), the U.S. Fish and Wildlife Service (USFWS) online special-status species list, and the California Native Plant Society (CNPS) Online

Edition. The species lists obtained from the CNDDB, CNPS, and USFWS were reviewed to determine which species could potentially occur in the project area.

LSA conducted a general field survey and nesting bird survey within the BSA on July 31, 2018.

Environmental Setting. Developed areas, totaling 56.81 acres, include the Merced Mall, associated parking lots, and outbuildings containing big box stores (e.g. Target, Michael's, Big Lots). These areas are characterized by little to no vegetation, with the exception of small amounts of landscaping within the parking lots. The landscaped areas within the parking lots primarily contain introduced shade trees such as Modesto ash (*Fraxinus velutina*), African sumac (*Rhus lancea*), crepe myrtle (*Lagerstroemia indica*), callery pear (*Pyrus calleryana*), and southern magnolia (*Magnolia grandiflora*).

The BSA does not contain suitable habitat for special-status plants or special-status wildlife. No special-status plants or wildlife are expected to occur within the BSA. However, shade trees within the parking lots may provide potential nesting habitat for migratory bird species, which are protected under the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (CFGC).

No aquatic resources were identified within the BSA. The nearest aquatic resources to the BSA include Black Rascal Creek, located approximately 0.1 mile to the north, and Bear Creek, located approximately 0.4 mile to the south.

4.4.1 Impact Analysis

a. Would the project 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?

As described above, no State or federally listed or proposed plant or wildlife species are expected to occur in the BSA; therefore, no special-status plants or wildlife would be affected by implementation of the proposed project. However, the proposed project has the potential to affect nesting bird species that could occur within the BSA. Disturbance of migratory birds during their nesting season (February 1 to August 31) could result in "take" which is prohibited under the MBTA and Section 3513 of the CFGC. CFGC Section 3503 also prohibits take or destruction of bird nests or eggs. Potential impacts to these protected species are described below.

Nesting Birds. Potential nesting trees are present throughout the parking lots within the BSA, though larger trees are concentrated on the northern and eastern sides of the mall. Six vacant nests were observed during the field survey in large trees located north of JC Penny in the Merced Mall and west of the Big Lots entrance east of the mall. Signs of recent activity (e.g. whitewash) were observed beneath each nest.

The proposed project would result in the removal of approximately 14 trees under Phase I expansion and either 10 trees under Phase II Alternative 1 or 13 trees under Phase II Alternative 2. Of the trees proposed for removal, none contain nests or signs of recent nesting activity. However, adherence to the requirements in Mitigation Measure BIO-1 would ensure potential impacts to nesting birds would result in a ***less–than-significant impact with mitigation***.

Mitigation Measure BIO-1: The following measures shall be implemented to reduce potential impacts to nesting birds:

- If tree removal will occur during the nesting season (February 1 to August 31), a qualified biologist shall survey all suitable nesting habitat in the BSA for presence of nesting birds. This survey shall occur no more than 10 days prior to the start of construction. If no nesting activity is observed, work may proceed as planned. If an active nest is discovered, a qualified biologist shall evaluate the potential for the proposed project to disturb nesting activities. The evaluation criteria shall include, but are not limited to, the location/orientation of the nest in the nest tree, the distance of the nest from the BSA, and line of sight between the nest and the BSA.
- California Department of Fish and Wildlife (CDFW) shall be contacted to review the evaluation and determine if the project can proceed without adversely affecting nesting activity.
- If work is allowed to proceed after nesting activity has been observed, a qualified biologist shall be on-site daily during construction activities to monitor nesting activity. The biologist shall have the authority to stop work if it is determined the project is adversely affecting nesting activities.

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

No riparian habitat or other sensitive natural communities occur in the BSA; the project site consists entirely of developed areas. As a result, ***no impact*** would occur.

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

No aquatic resources occur within the BSA, and no potential wetlands are located within the BSA. As a result, ***no impact*** would occur.

d. Would the project 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?

The BSA is completely developed and the project would not interfere substantially with wildlife movement. As a result, ***no impact*** would occur.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The project would not conflict with any local policies or ordinances protecting biological resources. Though the proposed project does fall within the City of Merced, and is therefore subject to provisions of the City's Municipal Code regarding tree removal (City of Merced Ord. 1501 § 2 (part), 1983), the proposed project does not conflict with any of the existing ordinances. As a result, ***no impact*** would occur.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The PG&E San Joaquin Valley Operation and Maintenance (O&M) Habitat Conservation Plan (HCP) was approved in 2007 and covers portions of nine counties, including Merced County and the City of Merced. This HCP covers PG&E activities which occur as a result of ongoing O&M that would have an adverse impact on any of the 65 covered species and provides incidental take coverage from the USFWS and CDFW. The project site is not located within the covered area of any other HCP, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Mitigation Measure BIO-1, for potential impacts to nesting birds, is largely consistent with avoidance and minimization measure 22 in the PG&E HCP. Therefore, the project would not conflict with the provisions of the PG&E HCP and the proposed project and would have ***no impact***.

4.5 CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☒	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

4.5.1 Impact Analysis

a. Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

A historical resource defined by CEQA includes one or more of the following criteria: 1) the resource is listed, or found eligible for listing in, the California Register of Historical Resources (CRHR); 2) listed in a local register of historical resources as defined by Public Resources Code (PRC) Section 5020.1(k); 3) identified as significant in a historical resources survey meeting the requirements of PRC Section 5024.1(g); or 4) determined to be a historical resource by the project's lead agency (PRC Section 21084.1; CEQA Guidelines Section 15064.(a)). Under CEQA, historical resources include built-environment resources and archaeological sites.

As discussed in the Cultural Resources Review, attached in Appendix B, no historical resources were identified within or adjacent to the project site. In addition, the City has determined that impacts to cultural resources could occur as a result of development within the City, and that unknown archaeological materials may be present. Although no evidence of archeological deposits have been identified, there is a potential for unknown archaeological resources that qualify as a historical resource under CEQA to be discovered during construction. Mitigation Measure CUL-1 requires that if unknown archaeological resources are discovered during construction, work in the area would halt and a qualified archaeologist would be contacted. Therefore, adherence to the requirements in Mitigation Measure CUL-1 would reduce potential impacts to unknown archaeological historical resources to ***less-than-significant with mitigation***.

Mitigation Measure CUL-1: If unknown pre-contact or historic-period archaeological materials are encountered during project activities, all work in the immediate vicinity of the find shall halt until a qualified archaeologist can evaluate the find and make recommendations.

Cultural resources materials may include pre-contact resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock, as well as historic resources such as glass, metal, wood, brick, or structural remnants. If the qualified archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations shall be required to mitigate adverse impacts from project implementation. These additional studies may include, but are not limited to recordation, archaeological excavation, or other forms of significance evaluations.

The applicant shall inform its contractor(s) of the sensitivity of the project site for archaeological deposits, and include the following directive in the appropriate contract documents:

"The subsurface of the construction site is sensitive for archaeological deposits. If archaeological deposits are encountered during project subsurface construction, all ground-disturbing activities within 25 feet shall be redirected and a qualified archaeologist shall assess the situation, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. Project personnel shall not collect or move any archaeological materials. Archaeological deposits can include, but are not limited to, shellfish remains; bones, including human remains; flakes of, and tools made from, obsidian, chert, and basalt; mortars and pestles; historical trash deposits containing glass, ceramics, and metal artifacts; and structural remains, including foundations and wells."

The City shall verify that the language has been included in the grading plans prior to issuance of a grading permit or other permitted project action that includes ground-disturbing activities on the project site.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

According to the CEQA Guidelines, "When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource" (CEQA Guidelines Section 15064.5(c)(1)). Those archaeological sites that do not qualify as historical resources shall be assessed to determine if these qualify as "unique archaeological resources" (California PRC Section 21083.2). No archaeological resources were identified in the project site. However, there is a potential for unknown archaeological resources to be discovered during construction. Mitigation Measure CUL-1 requires that if unknown archaeological resources are discovered during construction, work in the area would halt and a qualified archaeologist would be contacted. Therefore, adherence to the requirements in Mitigation Measure CUL-1 would reduce potential impacts to archaeological resources to ***less-than-significant with mitigation***.

Mitigation Measure CUL-2: Implement Mitigation Measure CUL-1.

c. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No paleontological resources or unique geological features are known to exist within or near the project site, and the project is not expected to alter or destroy a paleontological resource, site, or unique geologic feature. Furthermore, the project would not require excavation to depths that have not already been disturbed by previous construction. Therefore, ***no impact*** would occur.

d. Would the project disturb any humans remains, including those interred outside of formal cemeteries?

Disturbance of human remains interred outside of formal cemeteries would result in a significant impact. If human remains are identified during project construction, Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the Public Resources Code shall apply, as appropriate. Therefore, implementation of Mitigation Measure CUL-3 would reduce potential impacts to human remains to ***less than significant with mitigation***.

Mitigation Measure CUL-3: If human remains are identified during construction and cannot be preserved in place, the applicant shall fund 1) the removal and documentation of the human remains from the project corridor by a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology, 2) the scientific analysis of the remains by a qualified archaeologist, should such analysis be permitted by the Native American Most Likely Descendant, and 3) the reburial of the remains, as appropriate. All excavation, analysis, and reburial of Native American human remains shall be done in consultation with the Native American Most Likely Descendant, as identified by the California Native American Heritage Commission.

4.6 GEOLOGY AND SOILS

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

4.6.1 Impact Analysis

a. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

ii. Strong seismic ground shaking?

iii. Seismic-related ground failure, including liquefaction?

iv. Landslides?

Fault Rupture. Fault rupture is generally expected to occur along active fault traces that have exhibited signs of recent geological movement (i.e., 11,000 years). Alquist-Priolo Earthquake Fault Zones delineate areas around active faults with potential surface fault rupture hazards that would require specific geological investigations prior to approval of certain kinds of development within

the delineated area. The project site is not located within an Alquist-Priolo Earthquake Fault Zone.[11] In addition, no known active or potentially active faults or fault traces are located in the project vicinity.

The closest active faults are the Kings Canyon Lineament, located 10 miles southwest of the project site, San Joaquin Fault System, located approximately 30 miles west of the project site, Melones Fault System, located approximately 40 miles east of the project site, and Vernalis Fault, located approximately 45 miles northwest of the project site.[12] Due to the distance of these known faults, no people or structures would be exposed to potential substantial adverse effects, including the risk of loss, injury, or death from the rupture of a known earthquake fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, and this would be considered a ***less-than-significant impact***.

Seismic Ground Shaking. Merced is vulnerable to shaking from a number of faults that run through the mountains to the east and west of the City. As discussed above, the closest known active faults are the Kings Canyon Lineament, located 10 miles southwest of the project site, San Joaquin Fault System, located approximately 30 miles west of the project site, Melones Fault System, located approximately 40 miles east of the project site, and Vernalis Fault, located approximately 45 miles northwest of the project site. According to the City's General Plan, the most likely hazard associated with earthquakes for the Merced area is ground shaking, rather than surface rupture or ground failure.[13] However, due to the distance to the known faults, hazards due to ground shaking would be minimal. In addition, compliance with the California Building Code (Title 24, California Code of Regulations) would ensure that geotechnical design of the proposed project would reduce potential impacts related to seismic ground shaking to a ***less-than-significant*** impact.

Seismic Ground Failure. The potential for different types of ground failure to occur during a seismic event is discussed below.

> ***Liquefaction.*** Soil liquefaction is a phenomenon primarily associated with saturated soil layers located close to the ground surface. During ground shaking, these soils lose strength and acquire "mobility" sufficient to permit both horizontal and vertical movements. Soils that are most susceptible to liquefaction are clean, loose, uniformly graded, saturated, fine-grained sands that lie relatively close to the ground surface. However, loose sands that contain a significant amount of fines (silt and clay) may also liquefy. Based on the predicted seismic accelerations, and soil and groundwater conditions typically encountered in the region, general liquefaction potential is low in Merced.[14] Additionally, compliance with the California Building Code would ensure potential impacts associated with liquefaction would be ***less than significant***.

---

11 California Geologic Survey, 2010. *Cities and Counties Affected by Alquist-Priolo Earthquake Fault Zones*. January.

12 California Department of Conservation, 2010. *Fault Activity Map of California (2010)*. Website: maps.conservation.ca.gov/cgs/fam (accessed September 2018).

13 Merced, City of, 2012. *Merced Vision 2030 General Plan*. January 3.

14 Merced, City of, 2010. General Plan EIR, page 3.6-3. August.

Lateral Spreading. Lateral spreading is a phenomenon in which surficial soil displaces along a shear zone that has formed within an underlying liquefied layer. Upon reaching mobilization, the surface soils are transported downslope or in the direction of a free face by earthquake and gravitational forces. The project site is relatively flat and development of the proposed project would not exacerbate lateral spreading. Therefore, the proposed project would have a ***less-than-significant impact*** related to lateral spreading.

Landslides. A landslide generally occurs on relatively steep slopes and/or on slopes underlain by weak materials. The project site is located on a relatively flat area and is not located next to any hills. In general, the potential for land sliding or slope failure in Merced is very low and would not be susceptible to landslides.[15] Therefore, the potential for the proposed project to expose people or structures to risk as a result of landslides would be ***less than significant***.

b. Would the project result in substantial soil erosion or the loss of topsoil?

Topsoil is defined as the upper part of the soil profile that is relatively rich in humus and is technically known as the A-horizon of the soil profile.[16] Grading and earthmoving during project construction has the potential to result in erosion and loss of topsoil. Exposed soils could be entrained in stormwater runoff and transported off the project sites. However, this impact would be reduced to a less-than-significant level through compliance with water quality control measures, which include preparation of a Stormwater Pollution Prevention Plan (SWPPP) (refer to Section 4.9, Hydrology and Water Quality). Although designed primarily to protect stormwater quality, the SWPPP would incorporate Best Management Practices (BMPs) to minimize erosion. Additional details regarding the SWPPP are provided in Section 4.9, Hydrology and Water Quality of this Initial Study. This impact would be ***less than significant***.

c. Would the project 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?

As described in Section 4.6.1.a, soils on the project site would not be subject to liquefaction, lateral spreading, or landslides. Additionally, the proposed project would be required to conform with the California Building Code, which would reduce risks related to unstable soils. Therefore, the proposed project would have a ***less-than-significant impact*** related to unstable soils.

d. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Expansive soils are characterized by the potential for shrinking and swelling as the moisture content of the soil decreases and increases, respectively. Shrink-swell potential is influenced by the amount

[15] Ibid.

[16] California State Mining and Geology Board, 2014. Surface Mining Reclamation Act Regulations. California Code of Regulations, Title 14, Division 2, Chapter 8, Subchapter 1.

and type of clay minerals present and can be measured by the percent change of the soil volume.[17] Portions of the soils at the project site contain clay, and therefore have shrinking and swelling potential. However, compliance with the California Building Code requirements would ensure that geotechnical design of the proposed project would reduce potential impacts related to expansive soils to a less-than-significant level. As such, the risk of expansive soil affecting the proposed project is considered low and would represent a ***less-than-significant impact***.

e. Would the project 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?

Development of the proposed project would not involve the use of septic tanks or alternative wastewater disposal systems. Therefore, the proposed project would have ***no impact*** related to septic tanks or alternative waste water disposal systems.

4.7 GREENHOUSE GAS EMISSIONS

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

4.7.1 Impact Analysis

Greenhouse gases (GHGs) are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are:

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur Hexafluoride (SF_6)

[17] Natural Resources Conservation Service, 2017. *Web Soil Survey*. Website: websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx (accessed August 2018).

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and the length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG; the definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of pounds or tons of "CO_2 equivalents" (CO_2e).

The SJVAPCD *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA*[18] presents a tiered approach to analyzing project significance with respect to GHG emissions. Project GHG emissions are considered less than significant if they can meet any of the following conditions, evaluated in the order presented:

- Project is exempt from CEQA requirements;
- Project complies with an approved GHG emission reduction plan or GHG mitigation program;
- Project implements Best Performance Standards (BPS); or
- Project demonstrates that 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.

On November 20, 2015, the California Supreme Court (Court) issued its decision on the Center for Biological Diversity v. California Department of Fish and Wildlife on the Newhall Ranch project case (Newhall Ranch case). Among the findings, the Court supported the use of BAU analyses if it also substantiates the reduction a project must achieve to comply with Statewide goals. If no additional reductions are required from an individual project beyond that achieved by regulations to achieve the Assembly Bill (AB) 32 target for 2020, then the amount needed to reach the AB 32 target is the reduction a project must achieve to comply with Statewide goals.

[18] San Joaquin Valley Air Pollution Control District, 2009. *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA*. December 17. Available online at: www.valleyair.org/Programs/CCAP/12-17-09/3%20CCAP%20-%20FINAL%20LU%20Guidance%20-%20Dec%2017%202009.pdf (accessed August 2018).

a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

This section discusses the proposed project's potential impacts related to the release of GHG emissions for both construction and project operation.

Construction Greenhouse Gas Emissions. Construction activities, such as site preparation, site grading, on-site heavy-duty construction vehicles, equipment hauling materials to and from the project site, and motor vehicles transporting the construction crew would produce combustion emissions from various sources. During construction of the proposed project, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

Construction GHG emissions associated with the proposed project were estimated using CalEEMod. Appendix A contains CalEEMod output worksheets. Based on the CalEEMod results, construction of Phase I would generate approximately 455.9 metric tons CO_2e, construction of Phase II Alternative 1 would generate approximately 572.2 metric tons of CO_2e, and construction of Phase II Alternative 2 would generate approximately 552.3 metric tons of CO_2e. Therefore, the total construction of Alternative 1 would generate approximately 1,028.1 metric tons of CO_2e and the total construction of Alternative 2 would generate approximately 1,008.3 metric tons of CO_2e.

The SJVAPCD does not recommend assessing the significance of construction GHG emissions because these emissions would be temporary However, other air quality management districts (AQMDs) such as the South Coast AQMD and Sacramento Metropolitan AQMD recommend accounting for construction emissions by amortizing them over a 30-year project life and adding to the operational GHG emissions. The total amortized construction emissions for the proposed project would be 34.3 metric tons of CO_2e per year under Alternative 1 and 33.6 metric tons of CO_2e per year under Alternative 2. Construction of the proposed project would not generate GHG emissions that would have a significant impact on the environment and construction-related impacts would be ***less than significant***.

Operational Greenhouse Gas Emissions. Long-term operation of the proposed project would generate GHG emissions from mobile sources and indirect emissions from sources related to energy consumption. Mobile-source emissions of GHG would include project-generated vehicle trips associated with future visitors of the project site. Emissions would also be generated at off-site utility providers as a result of increased electricity demand generated by the proposed project. Operational GHG emissions were estimated using CalEEMod and the results are presented in Table 4.D.

As shown in Table 4.D below, Alternative 1 would generate 3,783.2 metric tons of CO_2e per year and Alternative 2 would generate 2,358.1 metric tons of CO_2e per year. As shown in Table 4.D, the primary source of emissions associated with the project are mobile source emissions generated by visitor and employee vehicle trips to and from the project site. Alternative 2 would result in lower

emissions than those identified for Alternative 1 as it would include the demolition of the existing United Artists Theater and two retail stores, which would generate less traffic and other emissions.

Table 4.D: Operational GHG Emissions

Emissions Source Category	Operational Emissions (Metric Tons per Year)				
	CO_2	CH_4	N_2O	CO_2e	Percent of Total
Alternative 1					
Phase I Area Source Emissions	0.0	0.0	0.0	0.0	0
Phase I Energy Source Emissions	89.3	0.0	0.0	90.0	7
Phase I Mobile Source Emissions	1,202.7	0.1	0.0	1,204.0	90
Phase I Waste Source Emissions	10.7	0.6	0.0	26.4	2
Phase I Water Source Emissions	5.3	0.1	0.0	9.2	1
Total Phase I Annual Emissions				**1,329.6**	**100**
Phase II Alternative 1 Area Source Emissions	0.0	0.0	0.0	0.0	0
Phase II Alternative 1 Energy Source Emissions	215.4	0.0	0.0	216.9	9
Phase II Alternative 1 Mobile Source Emissions	1,948.5	0.1	0.0	1,950.3	80
Phase II Alternative 1 Waste Source Emissions	88.1	5.2	0.0	218.4	9
Phase II Alternative 1 Water Source Emissions	35.9	1.0	0.0	68.0	3
Total Phase II Alternative 1 Annual Emissions				**2,453.6**	**100**
Total Alternative 1 Annual Emissions				**3,783.2**	**-**
Alternative 2					
Phase I Area Source Emissions	0.0	0.0	0.0	0.0	0
Phase I Energy Source Emissions	89.3	0.0	0.0	90.0	6
Phase I Mobile Source Emissions	1,202.7	0.1	0.0	1,204.0	91
Phase I Waste Source Emissions	10.7	0.6	0.0	26.4	2
Phase I Water Source Emissions	5.3	0.1	0.0	9.2	1
Total Phase I Annual Emissions				**1,329.6**	**100**
Phase II Alternative 2 Area Source Emissions	0.0	0.0	0.0	0.0	0
Phase II Alternative 2 Energy Source Emissions	174.9	0.0	0.0	176.1	17
Phase II Alternative 2 Mobile Source Emissions	581.8	0.0	0.0	582.2	57
Phase II Alternative 2 Waste Source Emissions	83.3	4.9	0.0	206.4	20
Phase II Alternative 2 Water Source Emissions	33.5	0.9	0.0	63.8	6
Total Phase II Alternative 2 Annual Emissions				**1,028.5**	**100**
Total Alternative 2 Annual Emissions				**2,358.1**	**-**

Source: LSA (August 2018).

The proposed project is not exempt from CEQA requirements and the City's Climate Action Plan (CAP) does not qualify as an approved GHG emission reduction plan or GHG mitigation program; therefore, the first two GHG significance criteria would not apply. Therefore, the proposed project's GHG emissions would not be considered a significant impact if the project would implement BPS strategies. Precise details of project features are not yet available; therefore, Mitigation Measure GHG-1 would require the proposed project to implement the following applicable BPS strategies.

Mitigation Measure GHG-1: The project applicant shall demonstrate compliance with the applicable BPS strategies to the Planning Division prior to the issuance of a building permit. The following BPS strategies are considered to be applicable, feasible, and effective in reducing GHG emissions generated by the project:

- The project applicant shall provide a pedestrian access network that internally links all uses and connects to existing external streets and pedestrian facilities.
- The project applicant shall ensure site design and building placement minimize barriers to pedestrian access and interconnectivity. Physical barriers such as walls, berms, landscaping, and slopes between nonresidential uses that impede bicycle or pedestrian circulation shall be eliminated. In addition, barriers to pedestrian access of neighboring facilities and sites shall be minimized.
- The project applicant shall design roadways to reduce motor vehicle speeds and encourage pedestrian and bicycle trips by featuring traffic calming measures. Traffic calming measures include: bike lanes, center islands, closures (cul-de-sacs), diverters, education, forced turn lanes, roundabouts, and speed humps.
- The project shall provide car sharing programs, accommodations such as parking spaces for the car share vehicles at convenient locations accessible by public transportation.
- The project applicant shall plant trees to provide shade.
- The project applicant shall install energy efficient heating and cooling systems, appliances and equipment, and control systems.

Implementation of Mitigation Measure GHG-1 would implement various BPS strategies recommended by the SJVAPCD that are applicable to the project to reduce GHG emissions. Overall, the mitigated project would implement GHG reduction strategies in compliance with the SJVAPCD and, therefore, would not be a significant source of GHG emissions. In addition, the proposed project would implement several measures required by State regulations to reduce GHG emissions by 2020, including the following:

- Pavley II (LEV III) Advanced Clean Cars Program;
- 2016 California Green Building Code Standards;
- Renewable Portfolio Standard;
- California Model Water Efficient Landscape Ordinance; and
- CalRecycle Waste Diversion and Recycling Mandate.

The second phase of Pavley standards will reduce GHG emissions from new cars by 34 percent from 2016 levels by 2025, resulting in a 3 percent decrease in average vehicle emissions for all vehicles by 2020. The California Green Building Code Standards reduce GHGs by including a variety of different measures, including reduction of construction waste, wastewater, water use, and building energy use. The 2016 Green building Standards reduce energy use by 28 percent compared to 2013 standards and 32 percent compared to the 2008 standards, representing a substantial reduction compared to 2005 levels. The Renewable Portfolio Standard requires electricity purchased for use at the project site to be composed of at least 33 percent renewable energy by 2020. The Water Efficient Landscape Ordinance will reduce outdoor water use by 20 percent, and the CalRecycle Waste Diversion and Recycling Mandate will reduce solid waste production by 25 percent.

Implementation of these measures is expected to allow the State to achieve AB 32 emission targets by 2020. Therefore, with implementation of Mitigation Measure GHG-1 and compliance with State requirements, it is expected that the proposed project would achieve the reductions required by regulations to meet the AB 32 target.

In addition, the Newhall Ranch case indicates that as 2020 nears, new post-2020 thresholds will be necessary. Phase I of the proposed project is expected to be operational in 2021; therefore the 2020 target would not still be appropriate. However, operation of the proposed project would comply with any new measures established to achieve post-2020 reductions.

Therefore, with implementation of Mitigation Measure GHG-1 and compliance with State regulations, the proposed project would not be a significant source of GHG emissions. Therefore, the project's impacts would be ***less than significant with mitigation***.

b. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The City of Merced CAP,[19] adopted in August 2012, includes goals, strategies, and actions to reduce local community GHG emissions to 1990 levels by the year 2020, consistent with the state objectives set forth in the "Global Warming Solutions Act," otherwise known as AB 32. The CAP presents a comprehensive list of actions, that when implemented, will help to achieve broadly-supported community values including: 1) protecting water and air resources; 2) reducing the waste-stream to

[19] Merced, City of, 2012. *City of Merced Climate Action Plan.* August.

the landfill; 3) improving energy-efficiency; 4) enhancing choice in mobility; and 5) creating healthy and livable communities and reducing GHG emissions.

The CAP's goals, strategies, and actions relate to buildings, mobility, waste, water, and land use. Table 4.E evaluates the proposed project's consistency with the relevant CAP strategies.

Table 4.E: Consistency with Merced Climate Action Plan

Climate Action Plan Strategy	Project Consistency with Strategy
Strategy EM 1.1: Site Design Planning. Increase percentage of citizens that travel by walking, cycling, and by using transit services.	**Consistent.** The proposed project site is currently developed with the existing Merced Mall. The proposed project would include improvements to the existing Merced Mall by increasing leasable retail area and constructing a new movie theater. In addition, as required by Mitigation Measure GHG-1, the project applicant shall ensure site design and building placement minimize barriers to pedestrian access and interconnectivity.
Strategy EM 1.2: Transit Planning. Improve local transit service and ridership through proactive partnership with transit planners and providers.	**Consistent.** As required by Mitigation Measure GHG-1, the project applicant shall ensure bus or streetcar service provides headways of one hour or less for stops within 1/4 mile; project provides safe and convenient bicycle/pedestrian access to transit stop(s) and provides essential transit stop improvements (i.e., shelters, route information, benches, and lighting).
Strategy EM 1.4: Pedestrian Planning And Projects. Build Enticing Pedestrian Corridors	**Consistent.** As required by Mitigation Measure GHG-1, the project applicant shall provide a pedestrian access network that internally links all uses and connects to existing external streets and pedestrian facilities.
Strategy SC 2.1: Compact Urban Form / Infill. Foster Compact and Efficient Development Patterns to Maintain a Compact Urban Form	**Consistent.** The proposed project site is currently developed with the existing Merced Mall. The proposed project would include improvements to the existing Merced Mall by increasing leasable retail area and constructing a new movie theater.
Strategy SC 2.4: Community Appearance. Maintain and Enhance the Unique Community Appearance of Merced	**Consistent.** The proposed additions would be visually similar to the existing buildings at the Merced Mall. While the proposed project would result in a change in the visual character of the project site, the change would be consistent with the existing Merced Mall.
Strategy WR 5.1: Reduce, Reuse, And Recycle. Continue Efforts to Increase the City's Waste Diversion Rate, and Aim to achieve a 65 percent Diversion Rate by 2020.	**Consistent.** The project would contribute toward a Statewide reduction in waste by utilizing the City of Merced recycling service.
Strategy BE 7.2: Energy Efficiency In New Development. Encourage new development to reduce significant GHG emission impacts through energy efficient building designs and siting.	**Consistent.** As required by Mitigation Measure GHG-1, the project shall exceed Title 24 requirements by 20 percent.

Therefore, as demonstrated in Table 4.E above, the proposed project would not conflict with plans, policies, or regulations adopted for the purpose of reducing GHG emissions. In addition, the proposed project would not result in a substantial increase in GHG emissions. Therefore, the

proposed project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs and impacts would be ***less than significant***.

4.8 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

4.8.1 Impact Analysis

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction activities associated with the proposed project would involve the use of limited amounts of potentially hazardous materials, including but not limited to, solvents, paints, fuels, oils, and transmission fluids. However, all materials used during construction would be contained, stored, and handled in compliance with applicable standards and regulations established by the Department of Toxic Substances Control (DTSC), the USEPA, and the Occupational Safety and Health Administration (OSHA). No manufacturing, industrial, or other uses utilizing large amounts of hazardous materials would occur within the project site. Project operation would involve the use of

small quantities of commercially-available hazardous materials (e.g., paint, cleaning supplies) that could be potentially hazardous if handled improperly or ingested. However, these products are not considered acutely hazardous and are not generally considered unsafe. All storage, handling, and disposal of hazardous materials during project construction and operation would comply with applicable standards and regulations. The proposed commercial uses would not generate significant amounts of any hazardous materials. Therefore, the proposed project would have a ***less-than-significant impact*** associated with the routine transport, use, or disposal of hazardous materials, and no mitigation is required.

b. Would the project 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?

See Section 4.8.1.a above. The proposed project would not result in a significant hazard to the public or the environment through a reasonably foreseeable upset or accident condition related to the release of hazardous materials. This impact would be considered ***less than significant***. No mitigation is required.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The closest existing school is Merced High School, located approximately 0.28 mile east of the project site. As previously stated, the proposed project would not result in the use or emission of substantial quantities of hazardous materials that would pose a human or environmental health risk. In addition, all materials would be handled, stored, and disposed of in accordance with applicable standards and regulations. Therefore, because the proposed project does not involve activities that would result in the emission of hazardous materials or acutely hazardous substances, implementation of the proposed project would result in a ***less-than-significant impact*** in the use or emission of hazardous materials that would adversely affect an existing school.

d. Would the project 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?

According to the DTSC EnviroStor database,[20] the project site is not located on a federal superfund site, State response site, voluntary cleanup site, school cleanup site, evaluation site, school investigation site, military evaluation site, tiered permit site, or corrective action site. The project site is not included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.[21] As a result, no impacts related to this issue are anticipated, and no mitigation is required. There would be ***no impact***.

[20] California Department of Toxic Substances Control, 2007. EnviroStor. Website: www.envirostor.dtsc.ca.gov/public/map/?myaddress=851+olive+avenue+merced+ca (accessed August 2018).

[21] California Environmental Protection Agency, 2018. Government Code Section 65962.5(a) Hazardous Waste and Substances Site List.

e. Would the project be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

The proposed project is not located within 2 miles of a public airport or a public use airport and is not within an airport land use plan. The nearest airports include Merced Regional Airport, located approximately 2.6 miles southwest of the project site, and Castle Airport, located approximately 4.8 miles northwest of the project site. Operations at Merced Regional Airport and Castle Airport are not expected to pose a safety hazard for people working at or visiting the project site. Therefore, implementation of the proposed project would not expose persons to airport-related hazards, and ***no impact*** would occur.

f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

See Section 4.8.1.e, above. No hazardous impacts related to the site's proximity to a private airport facility would occur. There would be ***no impact***.

g. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The proposed project would not result in any alterations of existing roadways. Therefore, the proposed project would not interfere with any emergency evacuation routes within Merced County or an adopted emergency response plan, and this impact would be ***less than significant***.

h. Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

The project site is located in an urban area and is not located within a very high fire hazard severity zone.[22] Therefore, the proposed project would not expose people or structures to a significant loss, injury or death involving wildland fires and there would be ***no impact***.

[22] Cal Fire, 2008. *Merced County Very High Fire Hazard Severity Zones in LRA.* November.

4.9 HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b. 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)?	☐	☐	☒	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e. 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?	☐	☐	☒	☐
f. Otherwise substantially degrade water quality?	☐	☐	☒	☐
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j. Inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐

4.9.1 Impact Analysis

a. Would the project violate any water quality standards or waste discharge requirements?

The State Water Resources Control Board and nine Regional Water Quality Control Boards regulate the water quality of surface water and groundwater bodies throughout California. The proposed project is within the jurisdiction of the Central Valley Regional Water Quality Control Board (RWQCB).

Pollutants of concern during construction include sediments, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and chemicals. During construction activities, excavated soil would be exposed with an increased potential to expose soils to wind and water erosion, which could result in temporary minimal increases in sediment load in nearby water bodies, including the Black Rascal Creek, located approximately 0.1 mile to the north, and Bear Creek, located

approximately 0.4 mile to the south. Any potential short-term water quality effects from project related construction activities can be minimized and reduced through implementation of Mitigation Measure HYDRO-1, as follows.

Mitigation Measure HYDRO-1: To minimize any potential short-term water quality effects from project-related construction activities, the project contractor shall implement Best Management Practices (BMPs) in conformance with the California Storm Water Best Management Practice Handbook for Construction Activity. In addition, the proposed project shall be in compliance with existing regulatory requirements, including the Water Pollution Control Preparation (WPCP) Manual. In addition, implementation of a Storm Water Pollution Prevention Plan (SWPPP) would be required under the National Pollutant Discharge Elimination System (NPDES) to regulate water quality associated with construction activities.

The nearest water bodies to the proposed project include the Black Rascal Creek, located approximately 0.1 mile to the north, and Bear Creek, located approximately 0.4 mile to the south. Operation of the proposed project could result in surface water pollution associated with chemicals, liquid products, petroleum products (such as paints, solvents, and fuels), and waste that may be spilled or leaked and have the potential to be transported via runoff during periods of heavy precipitation into these water bodies. Implementation of Mitigation Measure HYDRO-2, described below, would ensure that stormwater runoff from the proposed project would be appropriately managed to prevent pollutants from being discharged into these water bodies.

Mitigation Measure HYDRO-2: To reduce the potential for degradation of surface water quality during project operation, a SWPPP shall be prepared for the proposed project. The SWPPP shall describe specific programs to minimize stormwater pollution resulting from the proposed project. Specifically, the SWPPP shall identify and describe source control measures, treatment controls, and BMP maintenance requirements to ensure that the project complies with post-construction stormwater management requirements of the RWQCB.

With implementation of Mitigation Measures HYDRO-1 and HYDRO-2, impacts associated with the proposed project would result in a ***less than significant with mitigation***.

b. Would the project 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)?

The proposed project would result in a minimal increase in impervious surfaces given that the project site is mostly built out aside from planting areas located in the parking lot and the perimeter of the project site. However, the proposed project would include stormwater control features and

BMPs as required by Mitigation Measures HYDRO-1 and HYDRO-2. Therefore, the proposed project would not substantially interfere with groundwater recharge.

As discussed below in Section 4.18.1.d, the City receives all of its water supply from groundwater. Based on the City's Urban Water Management Plan (UWMP),[23] City wells produced 17,855 acre-feet of water in 2015. The UWMP also estimates the projected acre-feet of water use for years 2020, 2025, 2030, and 2035, which are projected to increase each year. By 2035, the City's projected water use is expected to be 31,960 acre-feet of potable and raw water and 5,869 acre-feet of recycled water.

Using water consumption data from the Commercial Buildings Energy Consumption Survey (CBECS), the U.S. Energy Information Administration (EIA) estimated that large commercial buildings generate the need for approximately 20 gallons per square foot of water annually.[24] The proposed project would generate the need for approximately 2.44 million gallons or approximately 7.5 acre-feet per year under both alternatives, which comprises less than 0.1 percent of the City's annual water use. In addition, the project is consistent with the General Plan land use designation and does not represent unplanned growth given that the project site would be developed consistent with its land use and zoning designations. In addition, as discussed in the UWMP, the City expects that passive savings, such as the implementation of the City's Water Efficient Landscape Ordinance, Title 20 appliance standards for toilets, urinals, faucets and showerheads and CALGreen Building Code requirement, will help the City reduce per capita water demand in the future. Therefore, the City would have sufficient water supplies to serve the proposed project. Therefore, the proposed project would have a ***less-than-significant impact*** related to depletion of groundwater supplies.

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

Implementation of the proposed project would result in grading and landform alteration on the site that would expose native soils that could be subject to the effects associated with wind and water erosion unless adequate measures are taken to limit the transport of soils in surface water from the site to downstream locations. As discussed under Section 4.9.1.a above, the project applicant would be required to implement a SWPPP that would identify specific measures to address erosion and siltation resulting from grading and construction as well as the potential long-term water quality impacts.

In addition, as described in the Project Description, the City owns and operates storm drainage facilities that serve all of the residential, commercial, and industrial users within the incorporated City limits. The storm drainage collection system consists of 112 miles of underground storm drain lines, underground storage pipes, and 141 acres of detention ponds. A 42-inch storm drain is located

23 Merced, City of, 2017. *2015 Urban Water Management Plan Final*. November.

24 U.S. Energy Information Administration, 2012. *Commercial Buildings Energy Consumption Survey (CBECS) 2012 Commercial Buildings Energy Consumption Survey: Water Consumption in Large Buildings Summary.* Release date: February 9, 2017. Website: www.eia.gov/consumption/commercial/reports/2012/water (accessed August 2018).

within the project site and connects to a storm drain within the West Olive Avenue right-of-way. The proposed project under both phases would continue to utilize existing service connections.

The project site currently includes approximately 2.2 million square feet (49.68 acres) of impervious surface. As result of the proposed project, an increase in impervious surfaces would be minimal given that the project site is mostly built out aside from planting areas located in the parking lot and the perimeter of the project site. As required by Mitigation Measures HYDRO-1 and HYDRO-2, a SWPPP would be developed prior to any ground disturbance at the project site and would include practices to reduce erosion and surface water contamination during construction. In addition, the proposed project would not alter the course of a stream or river. Therefore, the proposed project would have a ***less-than-significant impact*** related to drainage patterns.

d. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Please refer to Section 4.9.1.c, above. Implementation of the proposed project would not substantially increase the rate or amount of surface runoff that would result in flooding on or off site. This impact would be considered ***less than significant***. No mitigation is required.

e. Would the project 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?

The proposed project would result in a minimal increase in impervious surfaces given that the project site is mostly built out aside from planting areas located in the parking lot and the perimeter of the project site. With implementation of Mitigation Measure HYDRO-1, which would require implementation of BMPs and compliance with the WPCP, construction impacts related to exceeding the capacity of, and providing additional sources of polluted runoff to, storm water drainage systems would be reduced to ***less-than-significant levels***.

As discussed above, the proposed project would result in a minimal increase in impervious surfaces and therefore would not substantially increase runoff from the site. The proposed project would not contribute runoff water that would exceed the capacity of an existing or planned storm water drainage system. Mitigation Measure HYDRO-2 requires preparation of a SWPPP that would require site design, source control, and treatment control BMPs to be incorporated into final design. With implementation of Mitigation Measure HYDRO-2, operational impacts related to exceeding the capacity of, and providing additional sources of polluted runoff to, storm water drainage systems would be reduced to ***less-than-significant levels***. No mitigation is required.

f. Would the project otherwise substantially degrade water quality?

Operation of the proposed project would not result in any substantial changes to on-site water quality, with the exception of potential impacts associated with stormwater runoff. However, implementation of Mitigation Measures HYDRO-1 and HYDRO-2 would reduce potential impacts to a ***less-than-significant level***.

g. Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

The project does not include housing and is not located within the 100-year flood hazard area as mapped by the Federal Emergency Management Agency (FEMA).[25] Therefore, no housing would be placed within a 100-year floodplain and the proposed project would have **no impact** related to flood hazards.

h. Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Please refer to Section 4.9.1.g. The project site is not located within the 100-year flood zone and development of the proposed project would not impede or redirect potential flood flows, and the proposed project would have ***no impact*** related to flooding.

i. Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

As discussed in Section 4.9.1.g.above, the project site is not located within a 100-year flood hazard area. Implementation of the proposed project would not place housing or structures in the 100-year flood hazard area, therefore potential impacts related to exposure of people or structures to flooding would be less than significant. In addition, no dams or levees exist in the project area that could inundate the project site, therefore, impacts are considered ***less than significant*** and no mitigation is required.

j. Would the project be inundated by seiche, tsunami, or mudflow?

The project site is located within an urbanized area of Merced and is not immediately adjacent to any hillsides. As such, the risk from mudflow would be low. Furthermore, no enclosed bodies of water are in close enough proximity that would create a potential risk for seiche or a tsunami at the project site. Therefore, potential hazards from inundation from seiche, tsunami, or mudflow would be ***less than significant*** and no mitigation is required.

[25] Federal Emergency Management Agency, 2018. *FEMA Flood Map Service Center: Search By Address.* Website: msc.fema.gov/portal/search?AddressQuery=merced%20mall#searchresultsanchor (accessed August 2018).

4.10 LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

4.10.1 Impact Analysis

a. Would the project physically divide an established community?

The physical division of an established community typically refers to the construction of a physical feature (such as an interstate highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community, or between a community and outlying areas. For instance, the construction of an interstate highway through an existing community may constrain travel from one side of the community to another; similarly, such construction may also impair travel to areas outside of the community.

The proposed project site is currently developed with the existing Merced Mall. The proposed project would include improvements to the existing Merced Mall by increasing leasable retail area and constructing a new movie theater. These improvements would not affect connectivity, and would not divide an established community. Therefore, the proposed project would have ***no impact*** related to these issues.

b. Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

The project site is designated Regional/Community Commercial (RC) in the General Plan.[26] This land use designation is intended to provide community and regional commercial centers to serve a variety of retail goods, general merchandise, apparel, and home furnishings, with one or more major department stores as key tenants. The project site is located in a Planned Development (P-D) zoning district which allows for high quality development that deviates from standards and regulations applicable to other zoning districts within Merced. The P-D zoning districts are intended to promote creativity in building design, flexibility in permitted land uses, and innovation in development concepts, and in all P-D zoning districts, permitted land uses shall conform to the applicable general plan designation.

[26] Merced, City of, 2012. *Merced Vision 2030 General Plan*. January 3.

The project would not require a change the General Plan land use designation or the current zoning and would be consistent with the City's General Plan and Zoning Ordinance. Additionally, the project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect and therefore would result in ***no impact***.

c. Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

Please refer to Section 4.4.1.f. The proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan and would result in ***no impact***.

4.11 MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

4.11.1 Impact Analysis

a. Would the project 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?

The project site is located within an urban area on an infill site. There are no known mineral resources within or in the vicinity of the project site. The City's Open Space, Conservation, and Recreation chapter of the City's General Plan states that, according to the State Mining and Geology Board, the City does not contain any mineral resources that require managed production.[27] In addition, there are no Mineral Resource Zones (MRZ), areas designated as possessing minerals which are of State-wide or regional significance, within the City of Merced or in the area designated for future expansion of the City. As a result, the proposed project would not result in the loss of availability of a known mineral resource of value to the region or residents of the State. Therefore, the proposed project would have ***no impact***.

b. Would the project 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?

Please refer to Section 4.11.a. The proposed project would not result in the loss of availability of any known locally-important mineral resource recovery sites. Therefore, the proposed project would have ***no impact***.

[27] Merced, City of, 2012. *Merced Vision 2030 General Plan*. January 3.

4.12 NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project result in:				
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 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?	☐	☐	☒	☐
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

4.12.1 Impact Analysis

Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep. Several noise measurement scales exist that are used to describe noise in a particular location. A decibel (dB) is a unit of measurement that indicates the relative intensity of a sound. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense and 30 dB is 1,000 times more intense. Each 10 dB increase in sound level is perceived as approximately a doubling of loudness; and similarly, each 10 dB decrease in sound level is perceived as half as loud. Sound intensity is normally measured through the A-weighted sound level (dBA). This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. The A-weighted sound level is the basis for 24-hour sound measurements that better represent human sensitivity to sound at night.

As noise spreads from a source, it loses energy so that the farther away the noise receiver is from the noise source, the lower the perceived noise level would be. Geometric spreading causes the sound level to attenuate or be reduced, resulting in a 6 dB reduction in the noise level for each doubling of distance from a single point source of noise to the noise sensitive receptor of concern.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. Equivalent continuous sound level (L_{eq}) is the total sound energy of time varying noise over a sample period. However, the predominant rating scales for human communities in the State of California are the L_{eq}, the community noise equivalent level (CNEL), and the day-night average level (L_{dn}) based on A-weighted decibels (dBA). CNEL

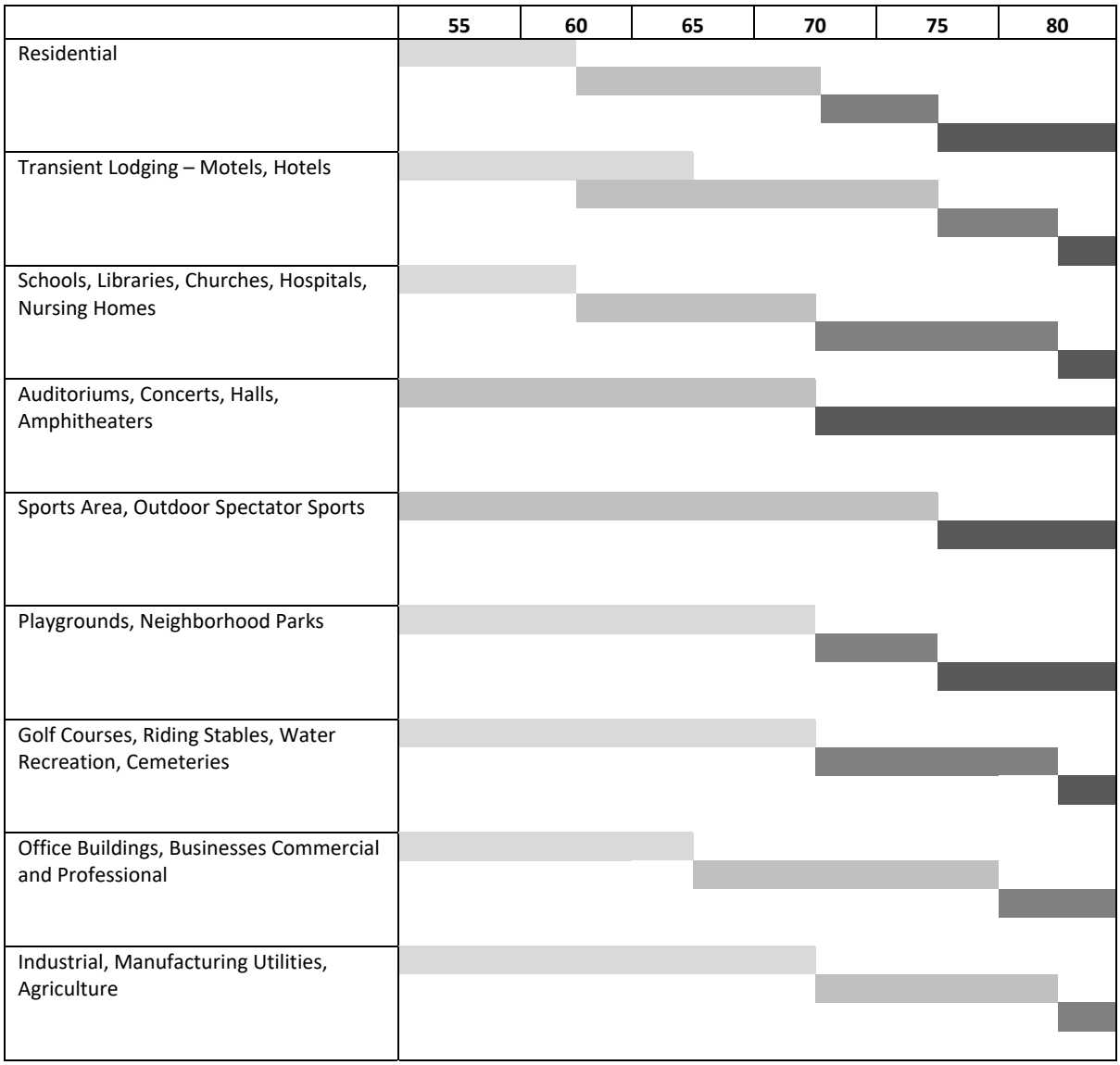
is the time varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale, but without the adjustment for events occurring during the evening relaxation hours. CNEL and L_{dn} are within one dBA of each other and are normally exchangeable. The noise adjustments are added to the noise events occurring during the more sensitive hours.

Certain land uses are considered more sensitive to noise than others. Examples of these include residential areas, educational facilities, hospitals, childcare facilities, and senior housing. The project site is located along the West Olive Avenue corridor that is predominantly developed with commercial, retail uses and multi-family residential uses. The closest sensitive receptors include the multi-family residences along Loughborough Drive, located approximately 100 feet north of the project site and approximately 800 feet north of proposed improvements. In addition, multi-family residences are located along Olivewood Drive, approximately 370 feet south of the project site and approximately 570 feet south of proposed improvements.

A project would have a significant noise effect if it would substantially increase the ambient noise levels for adjoining areas or be in conflict with adopted environmental plans and goals of applicable regulatory agencies, including, as appropriate, the City of Merced.

The City of Merced addresses noise in the Noise Element of the General Plan and in the Municipal Code. The Noise Element of the General Plan provides goals, policies, and actions that work to protect residents from excessive noise, prevent incompatible land uses from encroaching upon existing or planned noise-producing uses, and apply state of the art land use planning methodologies in areas of potential noise conflicts. Implementing Action 1.3.a of the Noise Element recommends limiting operating hours for noisy construction equipment used in the City of Merced. The Noise Element also sets noise and land use compatibility standards, as shown in Table 4.F below.

Table 4.F: Community Noise Exposure L_{dn} or CNEL, dB



Source: City of Merced (2012).

Normally Acceptable	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise requirements.
Conditionally Acceptable	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.
Normally Unacceptable	New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirement must be made and needed noise insulation features included in the design.
Clearly Unacceptable	New construction or development clearly should not be undertaken.

a. Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Short-Term (Construction) Noise Impacts. Project construction would result in short-term noise impacts on the nearby sensitive receptors. Maximum construction noise would be short-term, generally intermittent depending on the construction phase, and variable depending on receiver distance from the active construction zone. The duration of noise impacts generally would be from one day to several days depending on the phase of construction. The level and types of noise impacts that would occur during construction are described below.

Short-term noise impacts would occur during grading and site preparation activities. Table 4.G lists typical construction equipment noise levels (L_{max}) recommended for noise impact assessments, based on a distance of 50 feet between the equipment and a noise receptor, obtained from the Federal Highway Administration (FHWA) Roadway Construction Noise Model. Construction-related short-term noise levels would be higher than existing ambient noise levels currently in the project area but would no longer occur once construction of the proposed project is completed.

Table 4.G: Typical Construction Equipment Noise Levels

Equipment Description	Acoustical Usage Factor (%)	Maximum Noise Level (L_{max}) at 50 Feet[1]
Backhoes	40	80
Compactor (ground)	20	80
Compressor	40	80
Cranes	16	85
Dozers	40	85
Dump Trucks	40	84
Excavators	40	85
Flat Bed Trucks	40	84
Forklift	20	85
Front-end Loaders	40	80
Graders	40	85
Impact Pile Drivers	20	95
Jackhammers	20	85
Pick-up Truck	40	55
Pneumatic Tools	50	85
Pumps	50	77
Rock Drills	20	85
Rollers	20	85
Scrapers	40	85
Tractors	40	84
Welder	40	73

Source: Roadway Construction Noise Model (FHWA 2006).
Note: Noise levels reported in this table are rounded to the nearest whole number.
[1] Maximum noise levels were developed based on Spec 721.560 from the Central Artery/Tunnel (CA/T) program to be consistent with the City of Boston's Noise Code for the "Big Dig" project.
L_{max} = maximum instantaneous sound level

Two types of short-term noise impacts could occur during construction of the proposed project. The first type involves construction crew commutes and the transport of construction equipment and materials to the site, which would incrementally increase noise levels on roads leading to the project site. As shown in Table 4.G, there would be a relatively high single-event noise exposure potential at a maximum level of 84 dBA L_{max} with trucks passing at 50 feet.

The second type of short-term noise impact is related to noise generated during excavation, grading, and construction on the project site. Construction is performed in discrete steps, or phases, each with its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on site. Therefore, the noise levels vary as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase.

Table 4.G lists maximum noise levels recommended for noise impact assessments for typical construction equipment, based on a distance of 50 feet between the equipment and a noise receptor. Typical maximum noise levels range up to 88 dBA L_{max} at 50 feet during the noisiest construction phase, assuming a crane, forklift, tractor, welder, and backhoe would be operating simultaneously. The site preparation phase, including excavation and grading of the site, tends to

generate the highest noise levels because earthmoving machinery is the noisiest construction equipment. Earthmoving equipment includes excavating machinery such as backfillers, bulldozers, draglines, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full-power operation followed by 3 or 4 minutes at lower power settings.

The closest sensitive receptors to construction activity associated with the proposed project include the multi-family residences located along Olivewood Drive, approximately 570 feet south of the building expansion proposed under Phase I. Based on a reduction in noise of 6 dBA per doubling of distance, there would be a decrease of approximately 21 dBA from the active construction area to the nearest residences. Therefore, the closest off-site sensitive receptors may be subject to short-term construction noise reaching 67 dBA L_{max} when construction of the building expansion proposed under Phase I is occurring. This noise level is similar to the existing peak noise experienced during the day from single-event noise sources such as truck pass-bys.

However, construction noise would be intermittent and sporadic as construction phasing occurs. Noise levels would attenuate at sensitive receptors as construction activity moves further into the site. The City of Merced has not adopted a City Noise Ordinance, however Implementing Action 1.3.a of the Noise Element recommends limiting operating hours for noisy construction equipment used in the City of Merced. Therefore, construction activities shall be limited to between 8:00 a.m. and 5:00 p.m. to avoid noise-sensitive hours of the day.

As discussed above, construction noise would result in a temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. Implementation of the following mitigation measure for project construction would reduce potential construction period noise impacts for the indicated sensitive receptors to less-than-significant levels.

Mitigation Measure NOI-1: The project contractor shall implement the following measures during construction of the project:

- Equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.
- Ensure that all general construction related activities are restricted to between the hours of 8:00 a.m. and 5:00 p.m. to avoid noise-sensitive hours of the day.
- Designate a "disturbance coordinator" at the City who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler) and would determine and implement reasonable measures warranted to correct the problem.

Implementation of the above mitigation measure would limit construction activities to the less noise-sensitive periods of the day and would reduce construction impacts to a level of ***less than significant with mitigation***.

Operational Noise Impacts. Motor vehicles with their distinctive noise characteristics are the dominant noise source in the project vicinity. The amount of noise varies according to many factors, such as volume of traffic, vehicle mix (percentage of cars and trucks), average traffic speed, and distance from the observer. Implementation of the proposed project would result in new daily trips on local roadways in the project site vicinity. A characteristic of sound is that a doubling of a noise source is required in order to result in a perceptible (3 dBA or greater) increase in the resulting noise level.

As discussed below in Section 4.16, Transportation/Traffic, Alternative 1 would generate approximately 4,892 daily trips and Alternative 2 would generate approximately 2,431 daily trips. The adjacent West Olive Avenue carries approximately 15,570 average daily trips. Project trips would represent a small fraction of the overall roadway traffic volumes. As such, project-related increases in traffic noise levels are also anticipated to be small along Olivewood Drive, R Street, Loughborough Drive, and M Street and are not anticipated to be perceptible by the human ear. Therefore, project daily trips would not result in a doubling of traffic volumes along any roadway segment in the project vicinity and would not result in a perceptible increase in traffic noise levels at receptors in the project vicinity.

In addition, with implementation of the proposed project, there would be an increase in activity at the project site, which would increase use of the parking lot. Representative parking lot activities, such as people conversing and slamming doors, would generate approximately 60 to 70 dBA L_{max} at 50 feet. However, when averaged over a 24-hour period, parking lot activities would not cause an increase in noise levels of more than 3 dBA. Therefore it is not expected that the proposed project would substantially increase noise levels over existing conditions. Operation of the proposed project would result in similar noise levels as existing conditions and therefore it is not expected that the proposed project would substantially increase noise levels over existing conditions, and impacts would be ***less than significant.***

b. Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

No permanent noise sources would be located within the project site that would expose persons to excessive groundborne vibration or noise levels. Construction activities associated with implementation of the proposed project are not expected to result in excessive groundborne vibration or groundborne noise levels. Therefore, implementation of the proposed project would not permanently expose persons within or around the project sites to excessive groundborne vibration or noise and the project impacts would be ***less than significant***.

c. Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Refer to Section 4.12.1.a. Audible increases in noise levels generally refer to a change of 3 dB or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. Implementation of the proposed project would not result in substantial increases in traffic noise levels on local roadways in the project vicinity or operational noise at sensitive receptor locations. Therefore, project-related noise increases would be ***less than significant***.

d. Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Although there would be temporary intermittent construction noise at times in the project area during project construction, implementation of Mitigation Measure NOI-1 would ensure construction of the proposed project would not significantly affect land uses adjacent to the project sites. In addition, with implementation of Mitigation Measure NOI-1, construction of the project would be limited to the less noise-sensitive periods of the day as required by the City. Therefore, the project would not result in a substantial temporary or periodic increase in ambient noise levels and would be considered ***less than significant with mitigation.***

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 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?

The nearest airports to the project site include Merced Regional Airport, located approximately 2.6 miles southwest of the project site, and Castle Airport, located approximately 4.8 miles northwest of the project site. No portion of the project site lies within the 55 dBA CNEL noise contours of these airports. Given the project site's distance from the nearest airports, project implementation would not expose people residing or working in the project area to excessive noise levels and impacts would be ***less than significant***.

f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

As discussed in Section 4.12.e above, the proposed project site is not located within the vicinity of a private airstrip, and the site does not lie within an airport land use plan area or within the 55 dBA CNEL noise contours of any private airfield. As such, there would be ***no impact***.

4.13 POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐

b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

4.13.1 Impact Analysis

a. Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The proposed project would include improvements to the existing Merced Mall by increasing leasable retail area and constructing a new movie theater. The proposed project would not result in direct population growth as the use proposed is not residential and would not contribute to permanent residency on site. Further, the General Plan's Regional/Community Commercial (RC) land use designation and would not generate growth beyond that anticipated in the General Plan. Therefore, the proposed project would not directly or indirectly induce population growth and this impact would be considered ***less than significant***.

b. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

The project site is located within the existing Merced Mall, which does not include housing. Therefore, the project would not displace existing housing or require the construction of replacement housing and would result in ***no impact***.

c. Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

As discussed in Section 4.13.1.b, above, the project site is located within the existing Merced Mall, which does not include housing. Therefore, the project would not displace existing housing or require the construction of replacement housing and would result in ***no impact***.

4.14 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. 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:				
i. Fire protection?	☐	☐	☒	☐
ii. Police protection?	☐	☐	☒	☐

iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☐	☒

4.14.1 Impact Analysis

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:

i. Fire protection?

The City of Merced Fire Department (MFD) would provide fire protection services to the proposed project. There are five MFD fire stations in Merced, with the closest fire station, Fire Station 53, located directly adjacent to the project site at 800 Loughborough Drive. Planned growth under the General Plan would increase calls for fire protection service in the City. The project is consistent with the site's General Plan designation and does not represent unplanned growth given that the project site would be developed consistent with its land use and zoning designations. The project could result in an incremental increase in the demand for fire protection services as a result of additional employees and visitors to the project site. However, the proposed project would be required to comply with all applicable codes for fire safety and emergency access. In addition, the project applicant would be required to submit plans to the MFD for review and approval prior to the issuance of building permits to ensure the project would conform to applicable building codes.

The MFD would continue providing services to the project site and would not require additional firefighters to serve the proposed project. The construction of a new or expanded fire station would not be required. The proposed project would not result in a significant impact on the physical environment due to the incremental increase in demand for fire protection and life safety services. The incremental increase in demand for services is not expected to adversely affect existing responses times to the site or within the City. Therefore, construction and operation of the proposed project would have a ***less-than-significant impact*** on fire protection and safety services and facilities.

ii. Police protection?

The City of Merced Police Department (MPD) provides police protection to the project site. The MPD headquarters are located at 611 West 22nd Street, approximately 1.2 miles south of the project site. Planned growth under the General Plan would increase calls for police protection service in the City. The project is consistent with the site's General Plan designation and does not represent unplanned growth. The project could result in an incremental increase in the demand for police protection services; however, the project site

would be required to comply with Chapter 20.38.070 of the Municipal Code, by providing appropriate lighting in the parking areas.

The MPD would continue to provide services to the project site and would not require additional officers to serve the project site. The construction of new or expanded police facilities would not be required. In addition, the Merced Mall employs security, which patrols and monitors areas of the shopping center. The Merced Mall security would also continue to provide services to the project site and would not require additional security guards to serve the project site. Therefore, the proposed project would not result in a substantial adverse impact associated with the provision of additional police facilities or services, and impacts to police services represent a ***less-than-significant impact***.

iii. Schools?

The proposed project will not generate student demand or otherwise impact school services given that there is no housing or a residential component. As such, there would be ***no impact***.

iv. Parks?

The proposed project would include expansion of an existing shopping center. The project does not include any residential uses and would not generate a need for additional park space. As such, there would be ***no impact***.

v. Other public facilities?

Development of the proposed project would not increase demand for other public services including libraries, community centers, and public health care facilities. As previously discussed, the project does not include development of residential uses and would therefore not result in increased demand for other public facilities. As such, there would be ***no impact***.

4.15 RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation	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?	☐	☐	☐	☒
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?	☐	☐	☒	☐

4.15.1 Impact Analysis

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?

The proposed project would involve the expansion of an existing shopping center and would not generate population growth that would result in an increase in the use of existing neighborhood and regional parks or other recreational facilities. Therefore, there would be ***no impact*** to parks or recreational facilities that would occur as a result of the proposed project.

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?

Employees working within the proposed project site may use nearby recreational facilities. However, the proposed expansion would not result in a substantial increase in the use of parks or other recreational facilities, and the proposed project would not require the construction or expansion of existing recreational facilities. Therefore, the project would have a ***less-than-significant impact*** on existing recreational facilities.

4.16 TRANSPORTATION/TRAFFIC

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

4.16.1 Impact Analysis

a. Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Traffic impacts of the proposed project were analyzed at 11 intersections during weekday AM and PM peak hours. Traffic conditions were examined for the weekday daily, AM peak hour, and PM peak hour conditions. The AM peak hour is defined as the one hour of highest traffic volumes occurring between 7:00 and 9:00 a.m. The PM peak hour is the one hour of highest traffic volumes occurring between 4:00 and 6:00 p.m. The Traffic Impact Analysis (TIA), attached in Appendix C, also analyzed 6 roadway segments.

Analysis Methodology and Significance Criteria. Roadway operations and the relationship between capacity and traffic volumes are generally expressed in terms of levels of service (which are defined using the letter grades A through F). These levels recognize that, while an absolute limit exists as to the amount of traffic traveling through a given intersection (the absolute capacity), the conditions that motorists experience rapidly deteriorate as traffic approaches the absolute capacity. Under such

conditions, congestion is experienced. There is general instability in the traffic flow, which means that relatively small incidents (e.g., a momentary engine stall) can cause considerable fluctuations in speeds and delays. This near-capacity situation is labeled Level of Service (LOS) E. Beyond LOS E, capacity has been exceeded, and arriving traffic will exceed the ability of the intersection to accommodate it. An upstream queue will then form and continue to expand in length until the demand volume again declines.

The City calculates LOS during the AM and PM peak hours using the Highway Capacity Manual (HCM) methodology. For signalized intersections, the HCM methodology calculates the average delay experienced by vehicles traveling through an intersection based on the operation of the traffic signal. For unsignalized (stop-controlled) intersections, average delay for the entire intersection is calculated at all-way stop controlled intersections and delay for each approach is calculated for two-way stop controlled intersections and the worst performing approach is reported. Table 4.H presents the relationship between delay and LOS.

Table 4.H: Level of Service for Signalized and Unsignalized Intersections

Level of Service	Signalized Intersection Delay per Vehicle (seconds)	Unsignalized Intersection Delay per Vehicle (seconds)
A	≤ 10.0	≤ 10.0
B	10.0–20.0	10.0–15.0
C	20.0–35.0	15.0–25.0
D	35.0–55.0	25.0–35.0
E	55.0–80.0	35.0–50.0
F	> 80.0	> 50.0

Source: *Merced Mall Expansion And Redevelopment Project Draft Traffic Impact Analysis*, LSA (August 2018).

As for roadway segments, the General Plan presents daily traffic volume LOS thresholds that can be employed on a planning level basis. These values are illustrated in Table 4.I.

The City of Merced General Plan Action T-1.8.b establishes LOS D as the acceptable level of service standard for intersections and roadways.[28] However, in certain cases, deviations are allowed as stated in Action T-1.8.c of the General Plan. Action T-1.8.c. Therefore, as described in the TIA, it has been considered that a significant project impact occurs at study intersections or roadway segments when the peak hour LOS falls below the City's LOS standard, LOS D (to E or F), or the project contributes to an existing or forecast deficiency. However, based on discussions with City staff and the policy stated in Action T-1.8.c of the General Plan, LOS E and F have also been considered to be acceptable for some study intersections and roadway segments, as the area around Merced Mall is dense with heavy existing traffic, making road widening and other mitigations difficult.

[28] Merced, City of, 2012. *Merced Vision 2030 General Plan*. January 3.

Table 4.I: Level of Service Definitions for Roadway Segments

LOS	Description
A	Describes primarily free-flow operation. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control Delay at the boundary intersection is minimal. The travel speed exceeds 85% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
B	Describes reasonably unimpeded operation. The ability to maneuver within the traffic stream is only slightly restricted, and control delay at the boundary is not significant. The travel speed is between 67% and 85% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
C	Describes stable operation. The ability to maneuver and change lanes at mid-segment locations may be more restricted than at LOS B. Longer queues at the boundary intersection may contribute to lower travel speeds. The travel speed is between 50% and 67% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
D	Indicates a less stable condition in which small increases in flow may cause substantial increases in delay and decreases in travel speed. This operation may be due to adverse signal progression, high volume, or inappropriate signal timing at the boundary intersection. The travel speed is between 40% and 50% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
E	Characterized by unstable operation and significant delay. Such operations may be due to some combination of adverse progression, high volume, and inappropriate signal timing at the boundary intersection. The travel speed is between 30% and 40% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
F	Characterized by flow at extremely low speed. Congestion is likely occurring at the boundary intersection, as indicated by high delay and extensive queuing. The travel speed is between 30% or less of the base free-flow speed, and the volume-to-capacity ratio is greater than 1.0.

Source: *Merced Mall Expansion And Redevelopment Project Draft Traffic Impact Analysis*, LSA (August 2018).

Intersection Impacts. An analysis of the existing, existing plus project, cumulative (2023), and cumulative (2023) plus project at 11 study intersections in the vicinity of the proposed project was completed to determine potential project impacts on the circulation system.

To determine the number of trips that could be generated by the proposed project, trip generation rates from the Institute of Transportation Engineers (ITE), Trip Generation (10th Edition), were used. The trip generation for the proposed project was developed using rates for Land Uses 820 - "Shopping Center" and 445 - "Multiplex Movie Theater."

As shown in Table 4.J, under Alternative 1, the proposed project is forecasted to generate approximately 4,892 daily trips, of which 47 would occur in the AM peak-hour and 367 would occur in the PM peak-hour.

For Alternative 2, trip generation was developed for the existing on-site uses to be demolished using ITE rates for Land Uses 820 - "Shopping Center" and 444 - "Movie Theater." As shown in Table 4.J, the demolished uses generate 2,461 daily trips, with 24 trips occurring during the AM peak hour and 191 trips occurring during the PM peak hour. After adjusting these trips, the proposed project is anticipated to generate 2,431 net daily trips, with 23 trips occurring during the AM peak hour and 176 trips occurring during the PM peak hour.

Table 4.J: Trip Generation

Land Use		Size	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Alternative 1									
Shopping Center	Trips/Unit[1]	50,000 square feet	37.75	0.58	0.36	0.94	1.83	1.98	3.81
	Trip Generation		1,888	29	18	47	92	99	191
	Internal Capture[2]		(38)	0	0	0	(4)	(4)	(8)
	Total External Trips		1,850	29	18	47	88	95	183
Multiplex Movie Theater	Trips/Unit[3]	14 Screens	220.00	0.00	0.00	0.00	7.00	6.73	13.73
	Trip Generation		3,080	0	0	0	98	94	192
	Internal Capture[2]		(38)	0	0	0	(4)	(4)	(8)
	Total External Trips		3,042	0	0	0	94	90	184
Total Alternative 1 Trip Generation			**4,892**	**29**	**18**	**47**	**182**	**185**	**367**
Alternative 2									
Proposed Project									
Shopping Center	Trips/Unit[1]	50,000 square feet	37.75	0.58	0.36	0.94	1.83	1.98	3.81
	Trip Generation		1,888	29	18	47	92	99	191
	Internal Capture[2]		(38)	0	0	0	(4)	(4)	(8)
	Total External Trips		1,850	29	18	47	88	95	183
Multiplex Movie Theater	Trips/Unit[3]	14 Screens	220.00	0.00	0.00	0.00	7.00	6.73	13.73
	Trip Generation		3,080	0	0	0	98	94	192
	Internal Capture[2]		(38)	0	0	0	(4)	(4)	(8)
	Total External Trips		3,042	0	0	0	94	90	184
Existing Trip Generation (Uses to Demolished for the New Movie Theater)									
Shopping Center	Trips/Unit[1]	25,420 square feet	37.75	0.58	0.36	0.94	1.83	1.98	3.81
	Trip Generation		959	15	9	24	47	50	97
	Internal Capture[2]		(19)	0	0	0	(2)	(2)	(4)
	Total External Trips		940	15	9	24	45	48	93
Movie Theater	Trips/Unit[4]	7 Screens	220.00	0.00	0.00	0.00	6.42	8.18	14.60
	Trip Generation		1,540	0	0	0	45	57	102
	Internal Capture[2]		(19)	0	0	0	(2)	(2)	(4)
	Total External Trips		1,521	0	0	0	43	55	98
Net New Alternative 2 Trip Generation			**2,431**	**14**	**9**	**23**	**94**	**82**	**176**

Source: *Merced Mall Expansion And Redevelopment Project Draft Traffic Impact Analysis*, LSA (August 2018).

[1] Rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition), Land Use 820 - "Shopping Center", Setting/Location - "General Urban/Suburban."

[2] Internal capture rates obtained using the National Cooperative Highway Research Program (NCHRP 8-51) Internal Trip Capture Estimation Tool.

[3] Rates from the ITE Trip Generation Manual (10th Edition), Land Use 445 - "Multiplex Movie Theater", Setting/Location - "General Urban/Suburban." Since daily rates were not available for this land use, the daily rates for Land Use 444 - "Movie Theater" were used.

[4] Rates from the ITE Trip Generation Manual (10th Edition), Land Use 444 - "Movie Theater", Setting/Location - "General Urban/Suburban."

The distribution of project trips was developed based on the regional roadway network and the locations of residential, employment, and commercial centers in relation to the proposed project. Because the location of the retail component of the project is different from that of the theater, whose location also varies in each alternative, separate trip distributions were considered for the retail and the theater (in each alternative). However, a similar regional distribution was followed in each case. Project trips were distributed 42 percent to the north, 30 percent to the south, 12

percent to the east, and 16 percent to the west. Trip assignment for project trips is the product of the project trip generation and the trip distribution percentages.

As described in the TIA, an intersection LOS analysis was conducted for existing conditions, existing plus project conditions, cumulative (2023) conditions, and cumulative (2023) plus project conditions using the methodologies previously discussed. Under existing conditions, the intersection of Mall Driveway 2 – Pepperwood Lane/West Olive Avenue operates at an unsatisfactory LOS in the PM peak hour under existing without project conditions. All other study intersections operate at a satisfactory LOS. Under existing plus project conditions (Phase I and Phases I and II under both alternatives), the intersection of Mall Driveway 2–Pepperwood Lane/West Olive Avenue is forecast to operate at an unsatisfactory LOS in the PM peak hour under all existing with project conditions (Phase I and Phase II) for both alternatives. All other study intersections operate at a satisfactory LOS. Due to the heavy existing traffic on West Olive Avenue and the built-out area around the intersection, the LOS at this intersection would be considered acceptable. Therefore, the proposed project would not cause a signalized intersection operating at an acceptable LOS to operate at an unacceptable LOS. Therefore, the project would result in a ***less-than-significant*** impact on the study intersections.

In addition, under cumulative (2023) conditions, the intersection of Mall Driveway 2–Pepperwood Lane/West Olive Avenue is forecast to operate at an unsatisfactory LOS in the PM peak hour under all cumulative without project conditions. All other study intersections are forecast to operate at a satisfactory LOS. Under cumulative (2023) plus project conditions (Phase I and Phases I and II under both alternatives), the intersection of Mall Driveway 2–Pepperwood Lane/West Olive Avenue is forecast to operate at an unsatisfactory LOS in the PM peak hour under all existing with project conditions (Phase I and Phase II) for both alternatives. All other study intersections operate at a satisfactory LOS. Due to the heavy existing traffic on West Olive Avenue and the built-out area around the intersection, the LOS at this intersection would be considered acceptable. Therefore, the proposed project would not cause a signalized intersection operating at an acceptable LOS to operate at an unacceptable LOS. Therefore the project would result in a ***less-than-significant*** impact on the study intersections.

Roadway Segment Impacts. A roadway segment LOS analysis was conducted for existing conditions, existing plus project conditions, cumulative (2023) conditions, and cumulative (2023) plus project conditions using the methodologies previously discussed. As discussed in the TIA, under existing conditions, all roadway segments are currently operating at a satisfactory LOS. Under existing plus project conditions (Phase I and Phases I and II under both alternatives), all roadway segments are forecast to operate at a satisfactory LOS under existing plus project conditions. Therefore, the proposed project would not cause a roadway segment operating at an acceptable LOS to operate at an unacceptable LOS. Therefore the project would result in a ***less-than-significant*** impact on the study roadway segments.

In addition, under cumulative (2023) conditions, all roadway segments are currently operating at a satisfactory LOS. Under cumulative (2023) plus project conditions (Phase I and Phases I and II under both alternatives), all roadway segments are forecast to operate at a satisfactory LOS under existing plus project conditions. Therefore, the proposed project would not cause a roadway segment

operating at an acceptable LOS to operate at an unacceptable LOS. Therefore, the project would result in a ***less-than-significant*** impact on the study roadway segments.

Vehicle Miles Traveled. Senate Bill (SB) 743 (Steinberg 2013) was approved by Governor Brown on September 27, 2013, and created a path to revise the definition of transportation impacts according to CEQA. As the guidelines are proposed today, CEQA transportation impacts are determined using LOS of intersections and roadways, which is a measure of congestion. The intent of SB 743 is to align CEQA transportation study methodology with and promote the statewide goals and policies for reducing vehicle miles traveled (VMT) and GHGs. Three objectives of SB 743 related to development are to reduce GHGs, diversify land uses, and focus on creating a multimodal environment. It is hoped that this will spur infill development.

VMT is defined as the product of a number of trips and those trips' lengths. The *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory),[29] circulated by the Governor's Office of Planning and Research (OPR), acknowledges that lead agencies should set criteria and thresholds for VMT and transportation impacts. However, the Technical Advisory provides guidance, as shown in Table 4.K, regarding residential, office, and retail uses, citing these as the most common land uses. Beyond these three land uses, there is no guidance provided for any other land use type.

Table 4.K: Vehicle Miles Traveled Significance Thresholds

Land Use	Significance Thresholds
Residential	15 percent below existing regional or city VMT per capita
Office	15 percent below existing regional VMT per employee
Retail	Net increase in total VMT

Source: *Technical Advisory on Evaluating Transportation Impacts in CEQA,* Office of Planning and Research (April 2018).
VMT = Vehicle Miles Traveled

The Technical Advisory also notes that land uses may have a less-than-significant impact if located within low VMT areas of a region, and suggests the use of screening maps to make a determination.

The first step in preparing a VMT analysis is to establish the baseline average VMT, which requires the definition of a region. The Technical Advisory states that existing VMT may be measured at the regional or city level, but also notes that VMT analyses should not be truncated due to "jurisdictional or other boundaries."

The definition of the region is left to the discretion of the practitioner or the lead agency. The Technical Advisory suggests that, generally, lead agencies should analyze the effects of a retail project by assessing the change in total VMT because retail projects typically re-route travel from other retail destinations. By adding retail opportunities and improving retail destination proximity, local-serving retail development tends to shorten trips and reduce VMT.

[29] Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. April.

Generally, retail development larger than 50,000 sf could be considered regional serving, but other factors, including but not limited to the following, should also be considered:

> ***Service Area.*** The Merced Mall serves the area residents and surrounding neighborhoods. Although the occasional visitor may originate from outside the Merced vicinity, it is unlikely that the project would attract regular customers from other cities (such as Modesto, Turlock, or Fresno) that already have similar retail opportunities.
>
> ***Existing Use.*** The Merced Mall and a 7-screen movie theater currently exist, and already generate customer demand. Although the proposed project would renovate and provide additional uses on site (i.e., ranging from 24,580 square feet to 50,000 square feet of retail use and 7 to 14 movie screens), the project could be considered an amenity to the existing mall.

As the project is within a defined service area and the project is a modest expansion of an existing use serving an expanding population, it is likely that the project would not add VMT per capita or service population to the region. Therefore, the project would result in a ***less-than-significant*** impact related to VMT.

In the near future, the City may wish to coordinate with the regional agency (MCAG) and develop criteria and thresholds that balance the direction from OPR and the goals of SB 743 with the vision for Merced and economic development, affordable housing, access to goods and services, and overall quality of life.

b. Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

The Merced County Association of Governments (MCAG) adopted the 2018 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)[30] on August 16, 2018. The RTP/SCS is a long range planning document that provides the framework for investments in roads, freeways, public transit, and bikeways around Merced County for the next 25 years. It also helps Merced County comply with State-mandated efforts to reduce GHGs (Senate Bill 375). In addition, the RTP/SCS works to ensure that roadways operate at LOS D on all regionally significant roads.

As discussed above, the TIA included analysis of 11 intersections and 6 roadway segments adjacent to the project site. The following conditions were examined in the TIA: existing, existing plus project Phase I, existing plus project Phases I and II Alternative 1, existing plus project Phases I and II Alternative , cumulative, cumulative plus project Phases I and II Alternative 1, and cumulative plus project Phases I and II Alternative 2. The study intersection of Mall Driveway 2–Pepperwood Lane/West Olive Avenue is forecast to operate at an unsatisfactory LOS in all scenarios. However, the LOS at the intersection of Mall Driveway 2–Pepperwood Lane/West Olive Avenue has been deemed acceptable based on the heavy existing traffic on West Olive Avenue and the built-out area around the intersection. In addition, this intersection is not identified as a regionally significant road in the

[30] Merced County Association of Governments, 2018. *Regional Transportation Plan/Sustainable Communities Strategy for Merced County*. August 16.

RTP/SCS. All other study intersections are forecast to operate at a satisfactory LOS in all scenarios. In addition, all roadway segments under all scenarios would operate at a satisfactory LOS. Therefore, this impact would be considered ***less than significant*** and no mitigation measures are required.

c. Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location which results in substantial safety risks?

The project site is located approximately 2.6 miles northeast of the Merced Regional Airport and 4.8 miles southeast of the Castle Airport. The proposed project would not result in the construction of buildings that would be sufficiently high enough or configured in a way that would affect air traffic patterns. Therefore, the proposed project would not result in a substantial safety risk associated with a change in air traffic patterns. As a result, ***no impact*** would occur.

d. Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The proposed project entails modification of an existing shopping center by adding additional square footage and a movie theater. The project would not alter pedestrian or vehicle access to the project site. Therefore, the project would not substantially increase hazards due to a design feature, and there would be ***no impact***.

e. Would the project result in inadequate emergency access?

The proposed project entails construction within an existing shopping center and would not alter access driveways to the project site. Emergency vehicles would continue to use the 11 existing driveways to access the project site from West Olive Avenue, R Street, Loughborough Drive and Fairfield Drive. Therefore, the impact would be ***less than significant***.

f. Would the project conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

The proposed project would not include any activities or construction of structures that would decrease the performance or safety of public transit, bicycle, or pedestrian facilities. The Bus, Merced's regional transit system, provides transit service to the project site. Six stops along Loughborough Drive between R Street and M Street provide stops for five routes; Merced Routes (M1, M2, M3, and W2) and Livingston Route (L). Two stops along R Street between Loughborough Drive and West Olive Avenue provide stops for the W2 and L Routes. Two other stops along M Street between Loughborough Drive and West Olive Avenue provide stops for the UC Merced Route. Each of these stops are easily accessible within approximately a quarter mile of the project site, and would not be affected by construction or operation of the project.

Existing Class II bikeways (on-street Bike Lanes) are located along either side of both R Street and M Street. Sidewalks allowing pedestrian access to the project site are located at the northwest corner of the project side, adjacent to the existing bus stops on Loughborough Drive, from Fairfield Drive. The project would not alter existing bicycle or pedestrian facilities. As a result, a ***less-than-significant impact*** would occur.

4.17 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. 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)? Or	☐	☐	☐	☒
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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

4.17.1 Impact Analysis

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)? Or

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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

As stated in Section 4.5, Cultural Resources, improvements associated with the project include demolition of portions of the existing shopping center building and construction of new at-grade buildings. The areas of the project subject to demolition and construction facilities are likely to have been subject to ground disturbance in the past. No tribal resources are known to occur or have been identified at the project site or in the vicinity of the project site. However, as noted in Section 4.5, Cultural Resources, implementation of Mitigation Measures CUL-1 and CUL-3 would protect

previously unrecorded or unknown cultural resources, including Native American artifacts and human remains, should these be encountered during project construction.

In addition, Assembly Bill (AB) 52 provides for consultation between lead agencies and Native American tribal organizations during the CEQA process. Since AB 52 was enacted in July 2015, the City has not been contacted by any California Native American tribes requesting that they be notified when projects are proposed in Merced.[31] As a result, the City is not required to notify any tribes of this project, and no tribes have requested consultation pursuant to Public Resources Code section 21080.3.1. Therefore, it is assumed that no Tribal Cultural Resources would be adversely affected by the project. As a result, ***no impact*** would occur.

4.18 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

4.18.1 Impact Analysis

a. Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

As discussed in Section 4.9, Hydrology and Water Quality, water quality in the State of California is regulated by the State Water Resources Control Board (State Water Board) and the nine Regional Water Quality Control Boards. The proposed project is within the jurisdiction of the Central Valley

[31] Espinosa, Kim. 2018. Merced. Planning Manager, City of Merced. Personal communication with LSA. October 30.

Regional Water Quality Control Board (RWQCB). Section 303(d) of the Federal Clean Water Act (CWA) requires that states identify water bodies including bays, rivers, streams, creeks, and coastal areas that do not meet water quality standards and the pollutants that are causing the impairment. Total Maximum Daily Loads (TMDLs) describe the maximum amount of a pollutant that a water body can receive while still meeting established water quality standards. A TMDL requires that all sources of pollution and all aspects of a watershed's drainage system be reviewed and set forth action plans that examine factors and sources adversely affecting water quality and identify specific plans to improve overall water quality and reduce pollutant discharges into impaired water bodies.

The proposed project would include improvements to the existing Merced Mall by increasing leasable retail area and constructing a new movie theater. The project site is located within the City of Merced, which provides wastewater collection and treatment for the Merced urban area. The City's wastewater collection system handles wastewater generated by residential, commercial, and industrial uses in the City. The City Wastewater Treatment Plant (WWTP), located in the southwest part of the City about 2 miles south of the airport, has been periodically expanded and upgraded to meet the needs of the City's growing population and new industry. The City's wastewater treatment facility has a permitted capacity of 10 million gallons per day (mgd), with an average 2008 flow of 8.5 mgd.

The proposed project would generate domestic wastewater associated with sinks and toilets to serve the employees at the proposed project, which would be treated by the WWTP. Planned growth under the General Plan would increase the collection and treatment of wastewater. The project is consistent with the City's General Plan land use designation and does not represent unplanned growth given that the project site would be developed consistent with its land use and zoning designations. Therefore, the City has sufficient capacity to serve the proposed project.

Since the WWTP is considered a publicly-owned treatment facility, operational discharge flows treated at the WWTP would be required to comply with applicable water discharge requirements issued by the RWQCB. Compliance with conditions or permit requirements established by the City as well as water discharge requirements outlined by the RWQCB would ensure that wastewater discharges coming from the project site and treated by the WWTP system would not exceed applicable RWQCB wastewater treatment requirements. Therefore, the project would have a ***less-than-significant*** impact associated with wastewater treatment and no mitigation is required.

b. Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Wastewater Infrastructure. As discussed in Section 4.18.1.a, wastewater treatment for the City of Merced is provided by the WWTP and the wastewater collection system is maintained by the City. A sanitary sewer main between 21 inches and 30 inches in diameter is located within the R Street right-of-way. In addition, a sewer line between 10 inches and 12 inches is located within the project site. The proposed project under both phases would continue to utilize existing service connections. Therefore, the proposed project would not require or result in the construction of new facilities or expansion of existing ones and impacts would be ***less than significant***.

Water Infrastructure. Under the water rights of the Merced Irrigation District (MID), the City of Merced received its water from the Merced River via Lake Yosemite until 1917. Since then, the City has relied on groundwater as its primary water source, but groundwater is recharged almost entirely through agricultural application of surface water from the Merced River.

The City updated its Urban Water Management Plan (UWMP) in 2015,[32] which was adopted in 2017. According to the UWMP, in 2015, City wells produced 17,855 acre-feet and delivered 9,950 acre-feet to metered customers. The remaining demand of 7,905 acre-feet was associated with unmetered customers and water loss within the system. The UWMP also estimates the projected acre-feet of water use for years 2020, 2025, 2030, and 2035, which are projected to increase each year. By 2035, the City's projected water use is expected to be 31,960 acre-feet of potable and raw water and 5,869 acre-feet of recycled water.

Using water consumption data from the Commercial Buildings Energy Consumption Survey (CBECS), the U.S. Energy Information Administration (EIA) estimated that large commercial buildings generate the need for approximately 20 gallons per square foot of water annually.[33] The proposed project would generate the need for approximately 2.44 million gallons or approximately 7.5 acre-feet per year under both alternatives, which comprises less than 0.1 percent of the City's annual water use. In addition, the project is consistent with the General Plan land use designation and does not represent unplanned growth given that the project site would be developed consistent with its land use and zoning designations. In addition, as discussed in the UWMP, the City expects that passive savings, such as the implementation of the City's Water Efficient Landscape Ordinance, Title 20 appliance standards for toilets, urinals, faucets and showerheads and CALGreen Building Code requirement, will help the City reduce per capita water demand in the future. Therefore, the City would have sufficient water supplies to serve the proposed project.

A 16-inch distribution main is located within the right-of-way of M Street and West Olive Avenue. In addition, a 10-inch water line and an 8-inch water line are located within the project site. The proposed project under both phases would continue to utilize existing service connections. Implementation of the proposed project would not require the construction or expansion of a water treatment facility, and the proposed project would have a ***less-than-significant impact*** related to water provision and treatment facilities.

c. Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The City owns and operates storm drainage facilities that serve all of the residential, commercial, and industrial users within the incorporated City limits. The storm drainage collection system consists of 112 miles of underground storm drain lines, underground storage pipes, and 141 acres of

32 Merced, City of, 2017. *2015 Urban Water Management Plan Final*. November.

33 U.S. Energy Information Administration, 2012. *Commercial Buildings Energy Consumption Survey (CBECS) 2012 Commercial Buildings Energy Consumption Survey: Water Consumption in Large Buildings Summary.* Release date: February 9, 2017. Website: www.eia.gov/consumption/commercial/reports/2012/water (accessed August 2018).

detention ponds. The project site is located within the existing Merced Mall, which is already served by stormwater infrastructure. A 42-inch storm drain is located within the project site and connects to a storm drain within the West Olive Avenue right-of-way. The proposed project under both phases would continue to utilize existing service connections and would not represent an expansion of facilities such that significant environmental effects would occur; therefore, this impact would be ***less than significant***.

d. Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Refer to Section 4.18.1.a and 4.18.1.b above. Implementation of the proposed project would not require new or expanded entitlements. Therefore, the proposed project would have a ***less-than-significant impact*** related to water supplies.

e. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Please refer to Section 4.1.18.a for a discussion of the project's impacts to wastewater treatment. The proposed project would result in a minor contribution to the daily permitted capacity of the wastewater treatment plant and would not exceed the plant's capacity. Therefore, impacts related to the capacity of the existing wastewater treatment plant would be ***less than significant***.

f. Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Solid wastes within the County of Merced are disposed of at two landfill sites owned and operated by the Merced County Regional Waste Management Authority. The west side of the County is served by the Billy Wright Road landfill, and the east side (including the City of Merced) by the Highway 59 landfill, 1.5 miles north of Old Lake Road. The County of Merced is the contracting agency for landfill operation and maintenance. It is estimated that the remaining capacity of the Highway 59 site will last until the year 2030. The City of Merced provides services for all refuse pick-up within the City limits, including green waste and recycling. Street sweeping services are also offered.

Operation of the proposed project would generate approximately 3,050 pounds of solid waste per day or about 556.6 tons of solid waste per year under both alternatives.[34] Given the available capacity at the landfill, the additional solid waste generated by the proposed project is not anticipated to cause the facility to exceed its daily permitted capacity. In addition, implementation of the City's recycling programs would further reduce solid waste generation and would ensure there is sufficient capacity to accommodate the proposed project at the Highway 59 landfill. As such, the project would be served by a landfill with sufficient capacity to accommodate the project's waste disposal needs, and impacts associated with the disposition of solid waste would be ***less than significant***.

[34] CalRecycle, 2016. *Solid Waste Generation Rates.* Website: www2.calrecycle.ca.gov/WasteCharacterization/General/Rates (accessed August 2018).

g. Would the project comply with federal, state, and local statutes and regulations related to solid waste?

The California Integrated Waste Management Act of 1989 (AB 939) changed the focus of solid waste management from landfill to diversion strategies such as source reduction, recycling, and composting. The purpose of the diversion strategies is to reduce dependence on landfills for solid waste disposal. AB 939 established mandatory diversion goals of 25 percent by 1995 and 50 percent by 2000. The proposed project would be required to comply with all federal, State, and local regulations related to solid waste. Furthermore, the proposed project would be required to comply with all standards related to solid waste diversion, reduction, and recycling during project construction and operation of the project. Therefore, the proposed project is anticipated to result in ***less-than-significant*** impacts related to potential conflicts with federal, State, and local statutes and regulations related to solid waste.

4.19 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Does the project have the potential to 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?	☐	☐	☒	☐
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.)	☐	☐	☒	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

4.19.1 Impact Analysis

a. Does the project have the potential to 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?

Implementation of Mitigation Measures BIO-1 would ensure that potential impacts to special-status species would be reduced to less-than-significant levels. Implementation of Mitigation Measures CUL-1 through CUL-3 would ensure that potential impacts to cultural resources that could be uncovered during construction activities would be reduced to a less-than-significant level.

Therefore, with the incorporation of mitigation measures, development of the proposed project would not: 1) degrade the quality of the environment; 2) substantially reduce the habitat of a fish or wildlife species; 3) cause a fish or wildlife species population to drop below self-sustaining levels; 4) threaten to eliminate a plant or animal community; 5) reduce the number or restrict the range of a rare or endangered plant or animal; or 6) eliminate important examples of the major periods of California history. Therefore, this impact would be ***less than significant***.

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)?

The proposed project's impacts would be individually limited and not cumulatively considerable due to the site-specific nature of the potential impacts. The potentially significant impacts that can be reduced to a less-than-significant level with implementation of recommended mitigation measures including the topics of air quality, biological resources, cultural resources, greenhouse gas emissions, hydrology and water quality, and noise. These impacts would primarily be related to construction-period activities, would be temporary in nature, and would not substantially contribute to any potential cumulative impacts associated with these topics.

For the topic of air quality, potentially significant impacts to air quality standards associated with project construction would be reduced to less-than-significant levels with implementation of Mitigation Measure AIR-1. For the topic of biological resources, implementation of Mitigation Measures BIO-1 would ensure that impacts to special status nesting bird species are reduced to a less-than-significant level.

For the topic of cultural resources, potentially significant impacts to archaeological resources and paleontological resources would be reduced to less-than-significant levels with implementation of Mitigation Measures CUL-1, CUL-2, and CUL-3.

For the topic of greenhouse gas emissions, the proposed project's greenhouse gas emissions would not be considered a significant impact if the project would implement BPS strategies. Precise details of project features are not yet available; therefore, Mitigation Measure GHG-1 would require the proposed project to implement applicable BPS strategies and would reduce impacts to a less-than-significant level.

For the topic of hydrology and water quality, implementation of Mitigation Measures HYDRO-1 would address potential impacts related to water quality during construction of the project. Implementation of Mitigation Measure HYDRO-2 would address potential impacts related to water quality during operation of the project. Implementation of Mitigation Measures HYDRO-1 and HYDRO-2 would reduce impacts to less-than-significant levels.

For the topic of noise, implementation of Mitigation Measure NOI-1 would reduce potential construction period noise impacts for sensitive receptors to less-than-significant levels.

For the topics of aesthetics, agriculture and forestry resources, greenhouse gas emissions, hazards and hazardous materials, land use and planning, mineral resources, population and housing, public services, recreation, tribal cultural resources, and utilities and service systems, the project would have no impacts or less-than-significant impacts, and therefore, the project would not substantially contribute to any potential cumulative impacts for these topics. All environmental impacts that could occur as a result of the proposed project would be reduced to a less-than-significant level through the implementation of the mitigation measures recommended in this document.

Implementation of these measures would ensure that the impacts of the project would be below established thresholds of significance and that these impacts would not combine with the impacts of other cumulative projects to result in a cumulatively considerable impact on the environment as a result of project development. Therefore, this impact would be ***less than significant***.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

The proposed project's potential to result in environmental effects that could directly or indirectly impacts human beings have been evaluated in this Initial Study. With implementation of the recommended mitigation measures, all environmental effects that could adversely affect human beings would be ***less than significant***.

This page intentionally left blank

5.0 LIST OF PREPARERS

LSA
7086 North Maple Avenue, Suite 104
Fresno, California 93720
Amy Fischer, Principal-in-Charge
Kyle Simpson, Associate/Project Manager
Cara Carlucci, Planner

157 Park Place
Pt. Richmond, California 94801
Patty Linder, Graphics/Document Production
Charis Hanshaw, Document Management

20 Executive Park, Suite 200
Irvine, California 92614
Dean Arizibal, Associate/Transportation

201 Creekside Ridge Court, Suite 250
Rocklin, CA 95678
Katie Vallaire, Senior Cultural Resources Manager
Mariko Falke, Cultural Resources Analyst
Mike Trueblood, Senior Biologist

This page intentionally left blank

6.0 REFERENCES

Cal Fire, 2008. *Merced County Very High Fire Hazard Severity Zones in LRA.* November.

California Department of Conservation , 2014. *Department of Conservation. California Important Farmland Finder.* Website: maps.conservation.ca.gov/dlrp/ciff (accessed August 2018).

California Department of Conservation, 2010*. Fault Activity Map of California (2010)*. Website: maps.conservation.ca.gov/cgs/fam (accessed September 2018).

California Department of Toxic Substances Control, 2007. EnviroStor. Website: www.envirostor.dtsc.ca.gov/public/map/?myaddress=851+olive+avenue+merced+ca (accessed August 2018).

California Environmental Protection Agency, 2018. Government Code Section 65962.5(a) Hazardous Waste and Substances Site List.

California Geologic Survey, 2010. *Cities and Counties Affected by Alquist-Priolo Earthquake Fault Zones*. January.

California State Mining and Geology Board, 2014. Surface Mining Reclamation Act Regulations. California Code of Regulations, Title 14, Division 2, Chapter 8, Subchapter 1.

California, State of, 2015. *Merced County Williamson Act FY 2013/2014* (Map).

CalRecycle, 2016. *Solid Waste Generation Rates.* Website: www2.calrecycle.ca.gov/Waste Characterization/General/Rates (accessed November 2017).

Caltrans, 2011. California Scenic Highway Mapping System, Merced County. Website: www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm (accessed August 2018).

Espinosa, Kim. 2018. Merced. Planning Manager, City of Merced. Personal communication with LSA. October 30.

Federal Emergency Management Agency, 2018. *FEMA Flood Map Service Center: Search By Address.* Website: msc.fema.gov/portal/search?AddressQuery=merced%20mall#searchresultsanchor (accessed August 2018).

LSA, 2018. *Merced Mall Expansion and Redevelopment Project Draft Traffic Impact Analysis*. August.

Merced County Association of Governments, 2018. *Regional Transportation Plan/Sustainable Communities Strategy for Merced County*. August 16.

Merced, City of, 2010. General Plan EIR, page 3.6-3. August.

Merced, City of, 2012. *City of Merced Climate Action Plan.* August.

Merced, City of, 2012. *Merced Vision 2030 General Plan*. January 3.

Merced, City of, 2017. *2015 Urban Water Management Plan Final*. November.

Natural Resources Conservation Service, 2017. *Web Soil Survey*. Website: websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx (accessed August 2018).

Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. April.

San Joaquin Valley Air Pollution Control District, 2007. *2007 PM_{10} Maintenance Plan and Request for Redesignation*. Available online at: www.valleyair.org/Air_Quality_Plans/docs/Maintenance%20Plan10-25-07.pdf (accessed August 2018).

San Joaquin Valley Air Pollution Control District, 2009. *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA*. December 17. Available online at: www.valleyair.org/Programs/CCAP/12-17-09/3%20CCAP%20-%20FINAL%20LU%20Guidance%20-%20Dec%2017%202009.pdf (accessed August 2018).

San Joaquin Valley Air Pollution Control District, 2013. *2013 Plan for the Revoked 1-Hour Ozone Standard*. September 19. Website: www.valleyair.org/Air_Quality_Plans/Ozone-OneHourPlan-2013.htm (accessed August 2018).

San Joaquin Valley Air Pollution Control District, 2015. *Guidance for Assessing and Mitigating Air Quality Impacts*. March 19. Website: www.valleyair.org/transportation/ceqa_idx.htm (accessed August 2018).

San Joaquin Valley Air Pollution Control District, 2016. *2016 Moderate Area Plan for the 2012 $PM_{2.5}$ Standard*. Website: http://www.valleyair.org/Air_Quality_Plans/PM25Plans2016.htm (accessed August 2018).

San Joaquin Valley Air Pollution Control District, 2016. *2016 Plan for the 2008 8-Hour Ozone Standard*. June 16. Website: www.valleyair.org/Air_Quality_Plans/Ozone-Plan-2016.htm (accessed August 2018).

U.S. Energy Information Administration, 2012. *Commercial Buildings Energy Consumption Survey (CBECS) 2012 Commercial Buildings Energy Consumption Survey: Water Consumption in Large Buildings Summary.* Release date: February 9, 2017. Website: www.eia.gov/consumption/commercial/reports/2012/water (accessed August 2018).