CITY OF LIVERMORE
GREENVILLE PLAZA PROJECT
DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Prepared for:

CITY OF LIVERMORE
1052 S. LIVERMORE AVENUE
LIVERMORE, CA 94550

Prepared by:

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JUNE 2020

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ABBREVIATIONS

AB	Assembly Bill
ABAG	Association of Bay Area Governments
ADT	average daily trips
AIA	airport influence area
APN	Assessor's Parcel Number
BAAQMD	Bay Area Quality Management District
BMP	best management practice
CAAQS	California Ambient Air Quality Standards
CalFIre	California Department of Forestry and Fire Protection
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
Cal Water	California Water Service Company
CAP	Climate Action Plan
CARB	California Air Resources Board
CBC	California Building Code
CEQA	California Environmental Quality Act
CGS	California Geologic Survey
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
dBA	A-weighted decibel
DOC	California Department of Conservation
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EACCS	East Alameda County Conservation Strategy
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GHG	greenhouse gas
gwp	global warming potential
In/sec	inches per second
LAFCo	Local Agency Formation Commission

LAVTA	Livermore Amador Valley Transit Authority
LAVWMA	Livermore Amador Valley Water Management Agency
LOS	level of service
L_{dn}	Day/Night Average Noise Level
L_{eq}	Equivalent Noise Level
L_{max}	maximum A-weighted noise level during the measurement period
LPD	Livermore Police Department
LPFD	Livermore-Pleasanton Fire Department
mgd	million gallons per day
mg/m^3	milligrams per cubic meter
mph	miles per hour
MRZ	mineral resource zone
NOx	nitrous oxide
NO_2	nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
NWIC	Northwest Information Center
O_3	ozone
OHP	Office of Historic Preservation
PG&E	Pacific Gas and Electric Company
PM_{10}	coarse particulate matter
$PM_{2.5}$	fine particulate matter
ppm	parts per million
PPV	peak particle velocity
ROG	reactive organic gas
SFBAAB	San Francisco Bay Area Air Basin
SO_2	sulfur dioxide
SWPPP	stormwater pollution prevention plan
TAC	toxic air contaminant
TIA	traffic impact analysis
USFWS	US Fish and Wildlife Service
VMT	vehicle miles traveled

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This document contains an initial study, with supporting environmental studies, which concludes that a mitigated negative declaration is the appropriate California Environmental Quality Act (CEQA) document for the Greenville Plaza Project (proposed project). This Mitigated Negative Declaration has been prepared in accordance with Public Resources Code Section 21000 et seq., and the CEQA Guidelines, California Code of Regulations Section 15000 et seq.

1.1 CEQA GUIDELINES

An initial study is conducted by a lead agency to determine whether a project may have a significant effect on the environment. In accordance with CEQA Guidelines Section 15063, an environmental impact report (EIR) must be prepared if an initial study indicates that the proposed project under review may have a potentially significant impact on the environment that cannot be initially avoided or mitigated to a level that is less than significant. A negative declaration may be prepared if the lead agency also prepares a written statement describing the reasons why the proposed project would not have a significant effect on the environment and, therefore, why it does not require the preparation of an EIR (CEQA Guidelines Section 15371). According to CEQA Guidelines Section 15070, a negative declaration shall be prepared for a project subject to CEQA when either:

a) The initial study shows there is no substantial evidence, in light of the whole record before the agency, that the proposed project may have a significant effect on the environment, or

b) The initial study identifies potentially significant effects, but:

   (1) Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed negative declaration is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur; and

   (2) There is no substantial evidence, in light of the whole record before the agency, that the proposed project as revised may have a significant effect on the environment.

If revisions are adopted in the proposed project in accordance with CEQA Guidelines Section 15070(b), including the adoption of the mitigation measures included in this document, a mitigated negative declaration can be prepared.

1.2 LEAD AGENCY

The lead agency is the public agency with primary responsibility over a proposed project. Where two or more public agencies will be involved with a project, CEQA Guidelines Section 15051 provides criteria for identifying the lead agency. In accordance with CEQA Guidelines Section 15051(b)(1), "the lead agency will normally be the agency with general governmental powers, such as a city or county, rather than an agency with a single or limited purpose." Based on the criterion above, the City of Livermore (City) is the lead agency for the proposed Greenville Plaza Project.

1.3 PURPOSE AND DOCUMENT ORGANIZATION

The purpose of this Initial Study is to evaluate the potential environmental impacts of the proposed project. This document is divided into the following sections:

1.0 Introduction – This section provides an introduction and describes the purpose and organization of the document.

2.0 Project Information – This section provides general information regarding the project, including the project title, lead agency and address, contact person, brief description of the project location, General Plan land use designation and zoning district, identification of surrounding land uses, and identification of other public agencies whose review, approval, and/or permits may be required. This section also includes a list of the environmental resources that the project could affect.

3.0 Project Description – This section describes the proposed project in detail, including the project components and their construction and operation.

4.0 Environmental Checklist – This section describes the environmental setting and overview for each of the environmental resource areas and evaluates a range of impacts classified as "no impact," "less than significant impact," "less than significant impact with mitigation incorporated," and "potentially significant impact" in response to the environmental checklist.

1.4 EVALUATION OF ENVIRONMENTAL IMPACTS

Section 4.0, Environmental Checklist, is the analysis portion of this Initial Study. The section evaluates the potential environmental impacts of the project. Section 4.0 includes 20 environmental resource subsections, plus CEQA Mandatory Findings of Significance. The environmental resource area subsections, numbered 1 through 20, include:

1. Aesthetics
2. Agriculture and Forestry Resources
3. Air Quality
4. Biological Resources
5. Cultural Resources
6. Energy
7. Geology and Soils
8. Greenhouse Gas Emissions
9. Hazards and Hazardous Materials
10. Hydrology and Water Quality
11. Land Use and Planning
12. Mineral Resources
13. Noise
14. Population and Housing
15. Public Services
16. Recreation
17. Transportation
18. Tribal Cultural Resources
19. Utilities and Service Systems
20. Wildfire
21. Mandatory Findings of Significance

Each environmental resource subsection is organized in the following manner:

The **Setting** summarizes the existing conditions at the regional, subregional, and local levels, as appropriate, and identifies applicable plans and technical information for the resource area.

The **Discussion of Impacts** provides a detailed discussion of each checklist question. The level of significance for each topic is determined by considering the predicted magnitude of the impact. For each checklist question, the Initial Study reaches one of the following conclusions:

No Impact: The project would have no impact on the environment.

Less Than Significant Impact: The project would not result in a substantial adverse change in the environment. This impact level does not require mitigation measures.

Less Than Significant Impact with Mitigation Incorporated: The project would have a "substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project" (CEQA Guidelines Section 15382). However, the incorporation of project-specific mitigation measures would reduce the impact to less than significant.

Potentially Significant Impact: The project's impact would be "potentially significant" but no mitigation measures are readily available, or the effectiveness of potential mitigation measures cannot be determined with certainty, because more in-depth impact analysis is needed. In such cases, an EIR is required.

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2.0 PROJECT INFORMATION

1. Project title: Greenville Plaza Project

2. Lead agency name and address: City of Livermore
1052 S. Livermore Avenue
Livermore, CA 94550

3. Contact person and phone number: Benjamin Murray, Senior Planner
Community Development Department
City of Livermore
(925) 960-4450

4. Project location: The proposed commercial development is located on 2.52 acres between Northfront Road and Interstate 580 (I-580)), along the eastern periphery of the City of Livermore, within the eastern portion of unincorporated Alameda County, CA. APNs 99B-5500-1-2; 99B-5500-2-3; 99B-5500-5.

5. Project sponsor's name and address: Ali Amidy
P. O. Box 880
Los Gatos, CA 95031

6. General Plan designation: Alameda County: Large Parcel Agriculture

City of Livermore**:** Highway Commercial (HC)

7. Zoning: Alameda County: Agricultural (A) District

City of Livermore: Currently not zoned. A pre-zoning application will be submitted to the City for zoning Highway Service Commercial (CHS).

8. Project description: The project includes annexation into the City and pre-zoning to Highway Service Commercial (CHS). The project will develop a vacant site into commercial uses including a gas station with car wash, convenience store, fast-food drive-through, retail building with a drive-through, and 60 on-site parking stalls. The City will require design review and a pre-annexation agreement. The applicant is requesting an amendment to the Community Character Element of the General Plan for the three contiguous parcels comprising the project site to allow height projections into the 1.58-degree view angle applicable to the Scenic Corridor Subarea in which the project site located.

9. Surrounding land uses and setting: The project site is bordered by roadways immediately to the south (I-580) and north (Northfront Road) with non-residential development west and south of I-580. Lands used for livestock and grazing extend to the north and east of the site. Residential development, including a school and a park, are located to the west/northwest.

10. Other public agencies whose approval may be required (e.g., permits, financing approval, or participation agreement):

- The Alameda County Local Agency Formation Commission (LAFCo) will require approval of the annexation application. The Alameda County LAFCo would be a responsible agency under CEQA and would rely on this IS/MND when considering the discretionary actions under LAFCo's jurisdiction and authority regarding the proposed annexation requested by the City on behalf of the applicant.
- The San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) requires that a Construction General Permit be obtained for projects disturbing more than 1 acre of soil, which will apply to the project. Compliance with the permit, including preparation of a Stormwater Pollution Prevention Plan (SWPPP), will be enforced and monitored by the City. The project will also need to comply with the requirements of the SFBRWQCB Municipal Regional Permit (MRP) Provision C.3, which is implemented by the City through its Municipal Stormwater Permit, pursuant to Chapter 13.45 of the Municipal Code. The MRP addresses both construction and ongoing stormwater management during project operation.
- State regulations require all new gas stations to obtain an Authority to Construct and a Permit to Operate from the local air district. The Bay Area Air Quality Management District (BAAQMD) regulates gas stations through Regulation 8, Rule 7 Gasoline Dispensing Facilities. The project will be subject to this regulation.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3? If so, has consultation begun?

- The City sent a written request to the Ione Band of Miwok Indians on December 19, 2018, in response to the tribe's request for notification of projects pursuant to AB 52 and applicable sections of the Public Resources Code. The tribe did not respond to the City's request within 30 days of receiving the invitation for consultation from the City.

12. 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" for which mitigation has been identified to reduce impacts to less than significant as indicated by the checklist on the following pages.

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

13. Determination: (To be completed by the lead agency). 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 EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

BENJAMIN MURRAY
Printed Name

6/4/2020
Date

CITY OF LIVERMORE
Lead Agency

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3.0 PROJECT DESCRIPTION

3.1 PROJECT LOCATION

The project site is in eastern Alameda County adjacent to the City of Livermore as shown in **Figure 3.0-1**. The site is adjacent to the northeastern portion of the City and is bounded by Interstate 580 (I-580) to the south and Northfront Road to the north, as shown in **Figure 3.0-2**.

3.2 PROJECT SITE DESCRIPTION

The 2.52-acre project site is currently vacant with no existing structures. The site is generally flat and runoff water drains to the west. Vegetation on-site consists of a mix of nonnative annual weeds and grasses, and evidence of occasional disturbance by disking is present. A chain-link fence separates the southern edge of the property from I-580. There is public roadway access to the site from Northfront Road along the site's northern border. **Table 3.0-1** summarizes General Plan land use and zoning designations for the project site.

TABLE 3.0-1
GENERAL PLAN LAND USE DESIGNATIONS AND ZONING

Jurisdiction	Current General Plan Designation	Current Zoning
Alameda County	Large Parcel Agriculture	Agricultural (A) District
City of Livermore	Highway Commercial (HC)	not currently zoned

SURROUNDING LAND USES

The project site is bordered by transportation uses immediately to the south (I-580) and north (Northfront Road), with commercial development south of I-580. Lands used for livestock and grazing extend to the north and east of the site. Residential development, including a school and a park, are located to the west/northwest. **Table 3.0-2** describes surrounding land zoning and existing uses.

TABLE 3.0-2
SURROUNDING LAND USE

Direction	Zoning		Existing Land Use
South	Planned Unit Development (City of Livermore)	PUD 34-92	Restaurant and Commercial
East	Planned Unit Development (City of Livermore)	PUD 34-92	Restaurant and Commercial
West	Commercial Service; Suburban Residential; Planned Unit Development (City of Livermore)	CS, RS, PUD 52-93	Residential and Commercial
North	Agricultural District (County of Alameda)	Large Parcel Agriculture	Agricultural Grazing

Sources: Land Use Map (City of Livermore 2018a); Zoning Map (City of Livermore 2017a); East County Area Plan Land Use Diagram (Alameda County Community Development Agency 2016)

3.3 PROJECT COMPONENTS

The proposed project would annex the 2.52-acre project site into the City of Livermore. Development on the site would include: a 12-pump gas station with a car wash; convenience store; fast-food drive-through; retail building with a drive-through; and a surface parking lot. Site improvements would include installation of retaining walls, landscaping, stormwater collection areas, and a refuse collection enclosure. The proposed site plan is shown in **Figure 3.0-3**.

PROPOSED ANNEXATION AND ZONING

The project seeks to:

- Pre-zone the project site as Highway Service Commercial (CHS).
- Annex the project site into City of Livermore city boundaries.
- Secure necessary land use entitlements for a highway commercial development with a gas station, fast-food drive-through, retail building with a drive-through, and an automated car wash.

The Alameda County Local Agency Formation Commission (LAFCo) will need to approve the City's pre-zoning and annexation application.

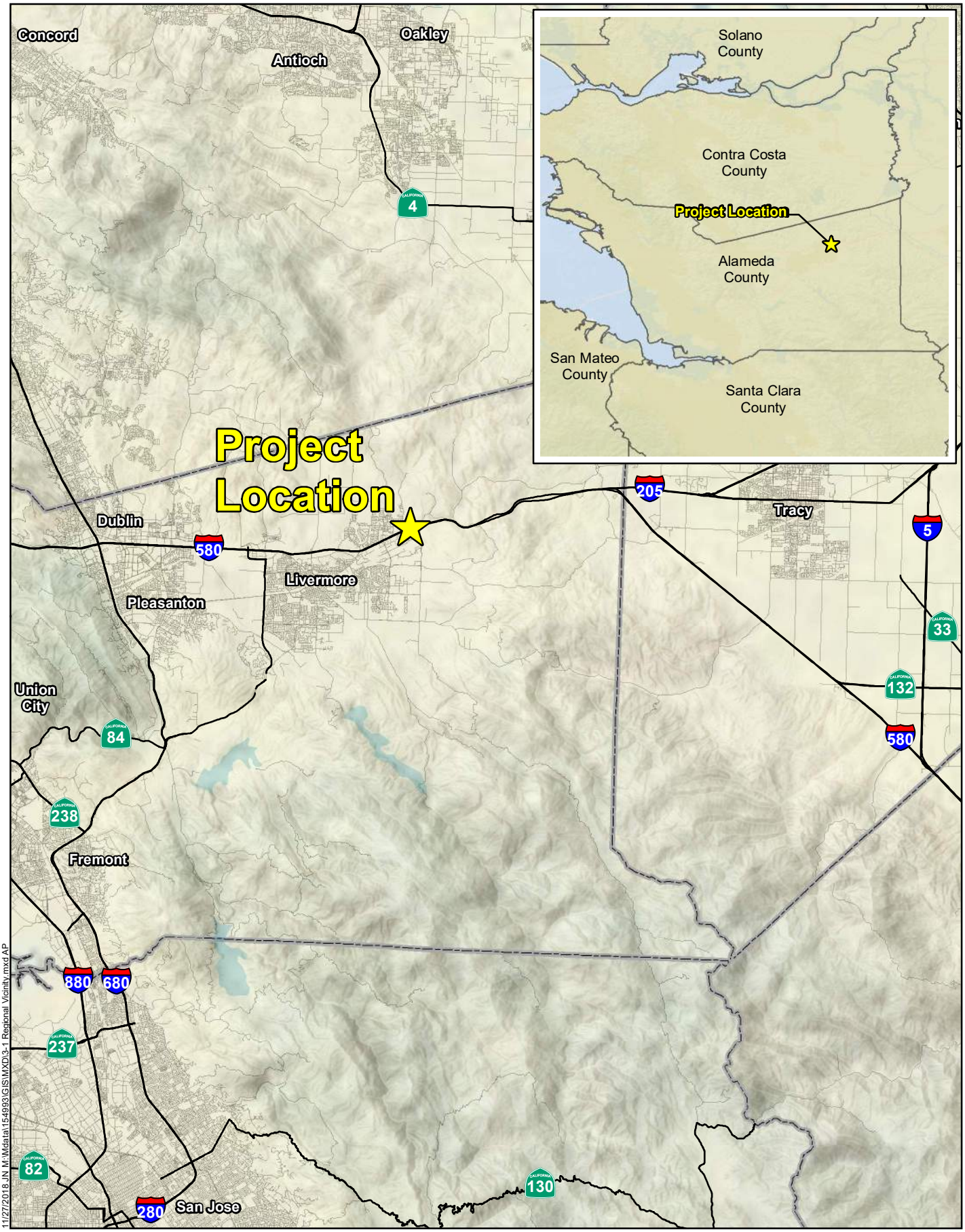
PROJECT DESIGN

The gas station component of the project would include construction of a 12-pump fueling island with canopy (dimensions 22 feet high, 36 feet wide, 80 feet long) and a 768-square-foot car wash facility (dimensions 18 feet high, 16 feet wide, 48 feet long). A refuse collection enclosure would be constructed just to the east of the car wash.

The gas station would be west of a building containing a convenience store/fast-food drive through. The 20-foot-tall building would include a 2,800-square-foot fast-food drive-through and an attached 4,425-square-foot building for the convenience store (total building area is 7,225 square feet), situated on the eastern portion of the site. A total of 29 parking stalls would be provided for the fast-food drive-through/convenience store.

The retail store component of the project would include construction of a 20-foot-tall, 4,600-square-foot building situated on the western portion of the site. The building may include a quick-serve single-lane drive-through. A total of 19 parking stalls would be provided for the retail store, at the west end of the project site.

The proposed buildings would have a Spanish Mediterranean architectural style with appropriate materials and color schemes to create architectural interest. The overall color scheme would be a neutral beige and brown for building exteriors with a darker roof. Materials would include rock veneer and stucco walls, barn-style doors, metal-framed storefront windows and doors in a bronze finish, and metal roof. Architectural details for each building are shown in the building elevation figures (**Figures 3.0-4a** through **3.0-4d**). The City's permitting process requires site planning, architectural, and landscape architectural design review.



11/27/2018 JN M:\Mdata\154993\GIS\MXD\3.x Regional Vicinity.mxd AP

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0 2.5 5 10 Miles

Source: ESRI Relief Map, US Census Tiger/Line, National Highway Planning Network

GREENVILLE PLAZA PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Regional Vicinity

Figure 3.0-1

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12/11/2018 JN M:\Mdata\169896\GIS\MXD\3-2 Project Location.mxd

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0 150 300 600 Feet

Source: Milestone Associates Imagineering, Nearmap Sept. 14, 2018

GREENVILLE PLAZA PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Project Location

Figure 3.0-2

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GREENVILLE PLAZA PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Site Plan

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0 50 100 200 Feet

Source: Milestone Associates Imagineering, Nearmap Sep. 14, 2018

Figure 3.0-3

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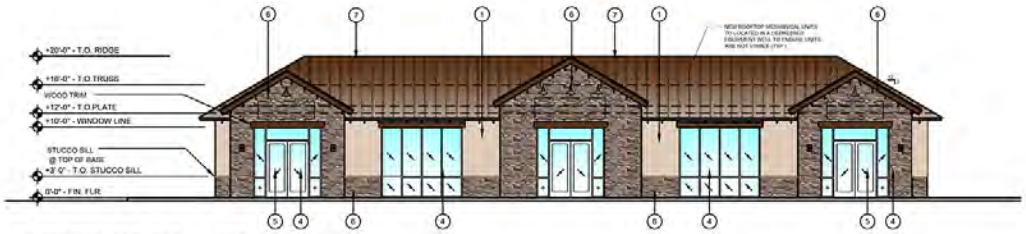
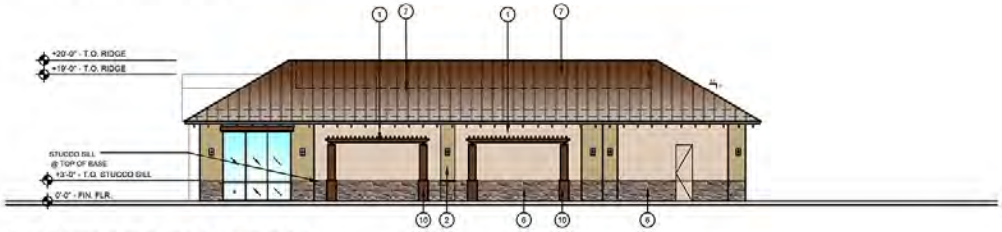


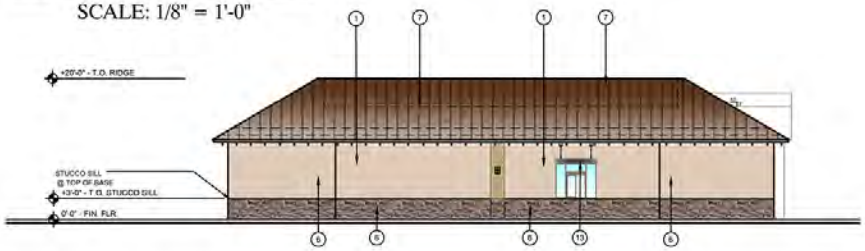
WEST ELEVATION

SCALE: 1/8" = 1'-0"



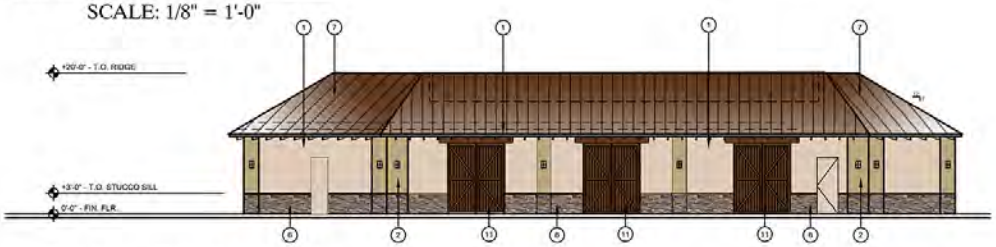
SOUTH ELEVATION

SCALE: 1/8" = 1'-0"



NORTH ELEVATION

SCALE: 1/8" = 1'-0"



EAST ELEVATION

SCALE: 1/8" = 1'-0"

EXTERIOR FINISH SCHEDULE		
LOCATION	KEYNOTE	MATERIAL / COLOR
WALLS	1	STUCCO: SHERWIN WILLIAMS SW6092 LIGHTWEIGHT BEIGE
WALLS	2	STUCCO SHERWIN WILLIAMS KILIM BEIGE
TRIM	3	TBD
WINDOWS	4	STOREFRONT SYSTEM BRONZE ANODIZED FINISH
DOORS	5	STOREFRONT SYSTEM BRONZE ANODIZED FINISH
WALLS	6	EL DORADO MOUNTAIN LEDGE/SIERRA
ROOF	7	STANDING SEAM METAL ROOF, COLOR, TBD
GUTTERS & DOWNSPOUTS	8	G.I. OGEE GUTTERS - MATCH ADJACENT SURFACE G.I. ROUND DOWNSPOUTS - MATCH ADJACENT SURFACE
FLASHING	9	G.I. FLASHING - PAINT - MATCH ADJACENT SURFACE
TRELLIS	10	T.B.D.
BARN DOORS	11	T.B.D.
AWNING	12	NOT USED
SUSPENDED CANOPY	13	T.B.D.

COLOR LEGEND

SHERWIN WILLIAMS SW6092 LIGHTWEIGHT BEIGE

SHERWIN WILLIAMS SW6106 KILIM BEIGE

EL DORADO MOUNTAIN LEDGE -SIERRA

STANDING SEAM ROOF, COLOR: TBD

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Source: Milestone Associates Imagineering

GREENVILLE PLAZA PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Elevation Building A

Figure 3.0-4a

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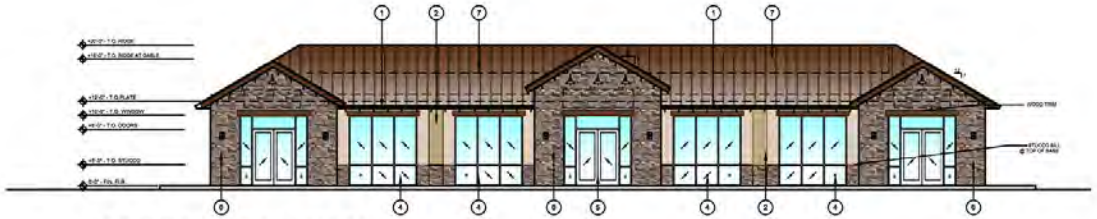
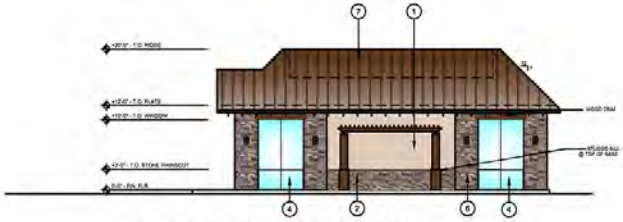


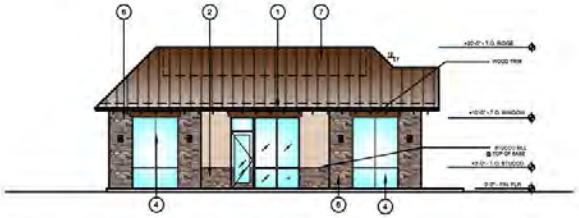
SOUTH ELEVATION

SCALE: 1/8" = 1'-0"



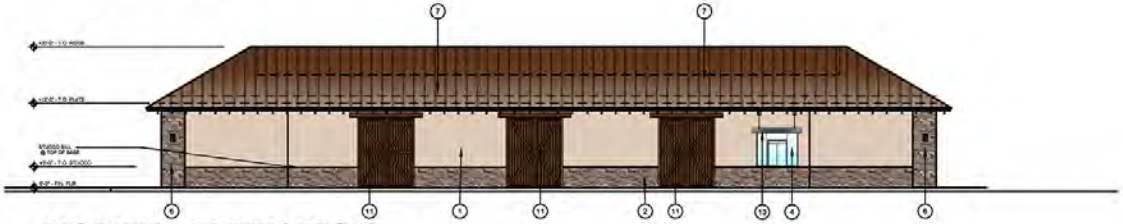
EAST ELEVATION

SCALE: 1/8" = 1'-0"



WEST ELEVATION

SCALE: 1/8" = 1'-0"



NORTH ELEVATION

SCALE: 1/8" = 1'-0"

EXTERIOR FINISH SCHEDULE		
LOCATION	KEYNOTE	MATERIAL / COLOR
WALLS	1	STUCCO: SHERWIN WILLIAMS SW6092 LIGHTWEIGHT BEIGE
WALLS	2	STUCCO SHERWIN WILLIAMS KILIM BEIGE
TRIM	3	TBD
WINDOWS	4	STOREFRONT SYSTEM BRONZE ANODIZED FINISH
DOORS	5	STOREFRONT SYSTEM BRONZE ANODIZED FINISH
WALLS	6	EL DORADO MOUNTAIN LEDGE-SIERRA
ROOF	7	STANDING SEAM METAL ROOF, COLOR: TBD
GUTTERS & DOWNSPOUTS	8	G.I. OGEE GUTTERS - MATCH ADJACENT SURFACE G.I. ROUND DOWNSPOUTS - MATCH ADJACENT SURFACE
FLASHING	9	G.I. FLASHING - PAINT - MATCH ADJACENT SURFACE
CORBEL	10	T.B.D
BARN DOORS	11	T.B.D
AWNING	12	NOT USED
SUSPENDED CANOPY	13	T.B.D

COLOR LEGEND

SHERWIN WILLIAMS SW6092 LIGHTWEIGHT BEIGE

SHERWIN WILLIAMS SW6106 KILIM BEIGE

EL DORADO MOUNTAIN LEDGE -SIERRA

STANDING SEAM ROOF, COLOR: TBD

GREENVILLE PLAZA PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Elevation Building B

Michael Baker INTERNATIONAL

Source: Milestone Associates Imagineering

Figure 3.0-4b

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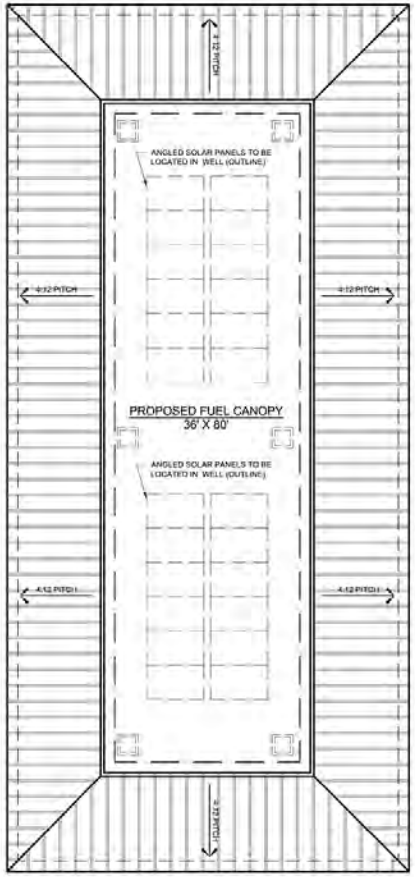
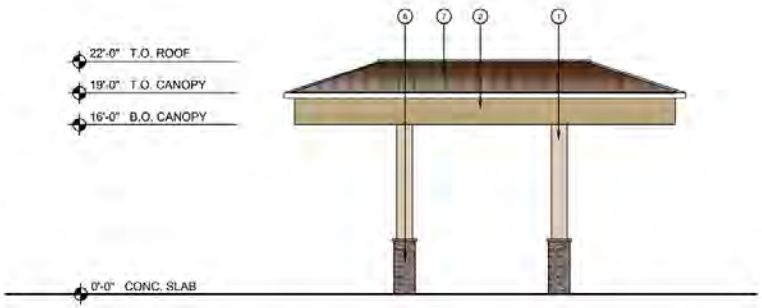


FUEL CANOPY ROOF PLAN

SCALE: 3/16" = 1'-0"



NORTH ELEVATION (SOUTH SIMILAR)

SCALE: 3/16" = 1'-0"

EXTERIOR FINISH SCHEDULE

LOCATION	KEYNOTE	MATERIAL / COLOR
WALLS	1	STUCCO, SHERWIN WILLIAMS SW6082 LIGHTWEIGHT BEIGE
WALLS	2	WOOD / SHERWIN WILLIAMS KOLIM BEIGE
TRIM	3	TBD
WINDOWS	4	STOREFRONT SYSTEM BRONZE ANODIZED FINISH
DOORS	5	STOREFRONT SYSTEM BRONZE ANODIZED FINISH
WAINS	6	EL DORADO MOUNTAIN LEDGE - SIERRA
ROOF	7	STANDING SEAM ROOF, COLOR: TBD
GUTTERS & DOWNSPOUTS	8	(2) 12X12 GUTTERS - MATCH ADJACENT SURFACE (2) ROUND DOWNSPOUTS - MATCH ADJACENT SURFACE
FLASHING	9	(E) FLASHING - PAINT - MATCH ADJACENT SURFACES
COVERS	10	TBD
BARN DOOR	11	TBD
AWNING	12	SHERWIN-KOLIM BEIGE
SUSPENDED CANOPY	13	TBD

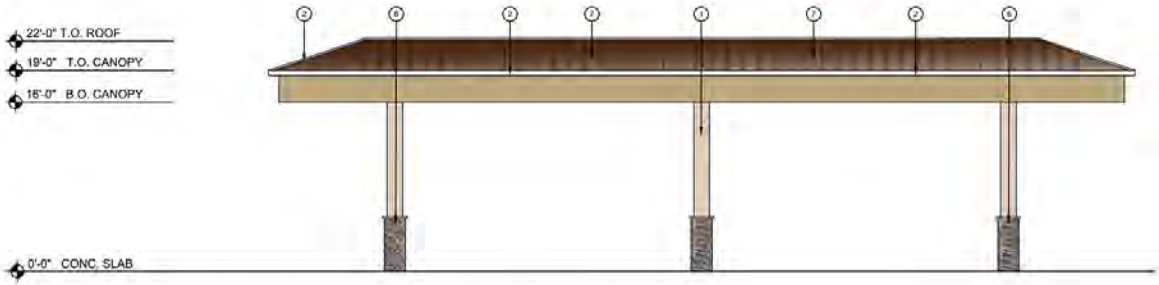
COLOR LEGEND

SHERWIN WILLIAMS SW6082 LIGHTWEIGHT BEIGE

SHERWIN WILLIAMS SW6106 KOLIM BEIGE

EL DORADO MOUNTAIN LEDGE - SIERRA

STANDING SEAM ROOF, COLOR: TBD



WEST ELEVATION (EAST SIMILAR)

SCALE: 3/16" = 1'-0"

Source: Milestone Associates Imagineering

GREENVILLE PLAZA PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Elevation Fuel Canopy

Figure 3.0-4c

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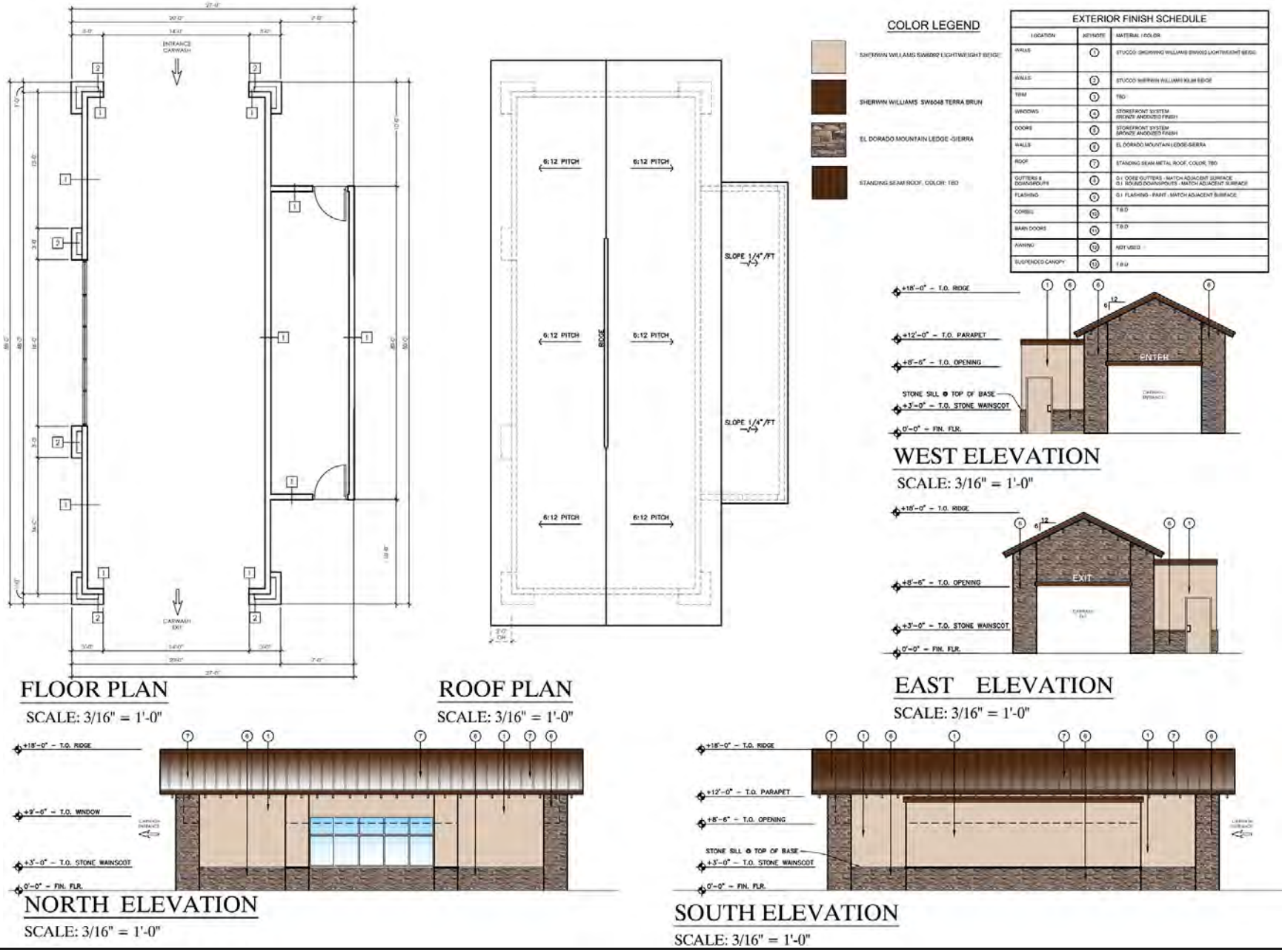

FLOOR PLAN
SCALE: 3/16" = 1'-0"

ROOF PLAN
SCALE: 3/16" = 1'-0"

WEST ELEVATION
SCALE: 3/16" = 1'-0"

EAST ELEVATION
SCALE: 3/16" = 1'-0"

NORTH ELEVATION
SCALE: 3/16" = 1'-0"

SOUTH ELEVATION
SCALE: 3/16" = 1'-0"

Source: Milestone Associates Imagineering

Elevation Carwash

Figure 3.0-4d

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CIRCULATION AND PARKING

Vehicles would access the project site from Northfront Road through two driveways. One driveway would be located at the west end of the project site, west of the retail store, and the other driveway would be located near the central portion of the project site, east of the retail store, as shown on **Figure 3.0-3**.

Surface parking for the convenience and retail stores (not associated with the fueling island) would include a total of 48 standard parking spaces, 3 of which would be accessible spaces. A total of 12 parking spaces would be provided at the fueling island. Entering vehicles would either park in the lot, within the fueling area, or enter the queuing area for the fast-food drive-through along the east edge of the site. The proposed drive-through is a single lane and includes space for 15 vehicles to queue. Bicycle parking (bike racks) would be provided near both the convenience store and the retail store.

LIGHTING AND LANDSCAPING

Project lighting would include parking lot lights on 18-foot-tall poles and building-mounted exterior fixtures (**Figure 3.0-5**). All project lighting would be required to comply with the performance standards in the Livermore General Plan Policy CC-1.3.P1 (City of Livermore 2009), which protects the nighttime sky, and other applicable City standards. The proposed landscaping includes trees and shrubs within the parking lot and along the perimeter (**Figure 3.0-6**).

UTILITIES

The project would connect to the existing water, sewer, electrical, and telecommunications networks. Pacific Gas and Electric Company (PG&E) would provide electrical and natural gas service, Livermore Municipal Water would provide potable water, and the City's Public Services Department would provide sewer service. Water and sewer would be extended from existing infrastructure at the intersection of Northfront Road and Laughlin Road.

The project includes construction of a stormwater treatment and detention basin near the site's western property boundary. The basin would be designed and constructed according to Alameda County's established stormwater technical guidance. All runoff from the site would be routed into a treatment basin and then into a detention basin. Construction would require excavation and removal of earthen material to lower the site elevation and to comply with building height restrictions. Thereafter, stormwater would be pumped into the treatment and detention basins and then into new storm drain infrastructure along Northfront Road that would tie into the existing drain pipe at the intersection of Northfront Road and Laughlin Road. The project would construct all necessary conveyance infrastructure to connect to the public service providers' existing infrastructure.

PROJECT PHASING AND CONSTRUCTION

Construction of the project is expected to commence in 2021 and is expected to be completed in approximately 12 months. During construction, surrounding streets would remain open and construction workers and material haul trucks would use existing streets. The site would be excavated to the planned elevation and graded. This grading phase would require approximately four months and off-hauling (export) of approximately 28,000 cubic yards of material. Assuming that a truck can accommodate 20 tons or 16 cubic yards of material, this process would require 3,500 haul trips, or 39 trips per day. The construction contractor would identify a project that needs clean fill and transport the material to that location. Assuming the material is transported to locations in Pleasanton, Livermore, and Tracy, the average haul trip would be approximately 10 miles (20 miles round trip).

Project construction would require the use of off-road equipment, such as small bulldozers, and could use vibration–generating construction equipment, such as rollers. The construction contractor would stage equipment and materials on-site.

Consistent with Livermore Municipal Code Section 9.36.080, construction would not occur between the hours of 6:00 p.m. Saturday and 7:00 a.m. Monday; between 8:00 p.m. and 7:00 a.m. on Monday, Tuesday, Wednesday, and Thursday; between 8:00 p.m. Friday and 9:00 a.m. on Saturday; or on City-observed holidays.

3.4 PROJECT APPROVALS

As the lead agency, the City of Livermore has the ultimate authority for project approval or denial. The proposed project will require the following discretionary approvals and permits for actions proposed as part of the project:

- Adoption of an Initial Study/Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program
- General Plan Amendment to amend the Community Character Element of the General Plan for the three contiguous parcels comprising the project site (APNs 99B-5500-1-2; 99B-5500-2-3; 99B-5500-5, which will be merged to accommodate the project) to allow height projections into the 1.58-degree view angle applicable to the I-580 Scenic Corridor Subarea 3, Subpart A, of Section C.4 where the project is located.
- Site Plan Design Review approval
- Conditional Use Permit
- Variance
- Zoning map amendment, as shown in **Figure 3.0-7**.
- Grading and building permits

Other responsible agency approvals would include:

- Alameda County LAFCo pre-zoning and annexation approval

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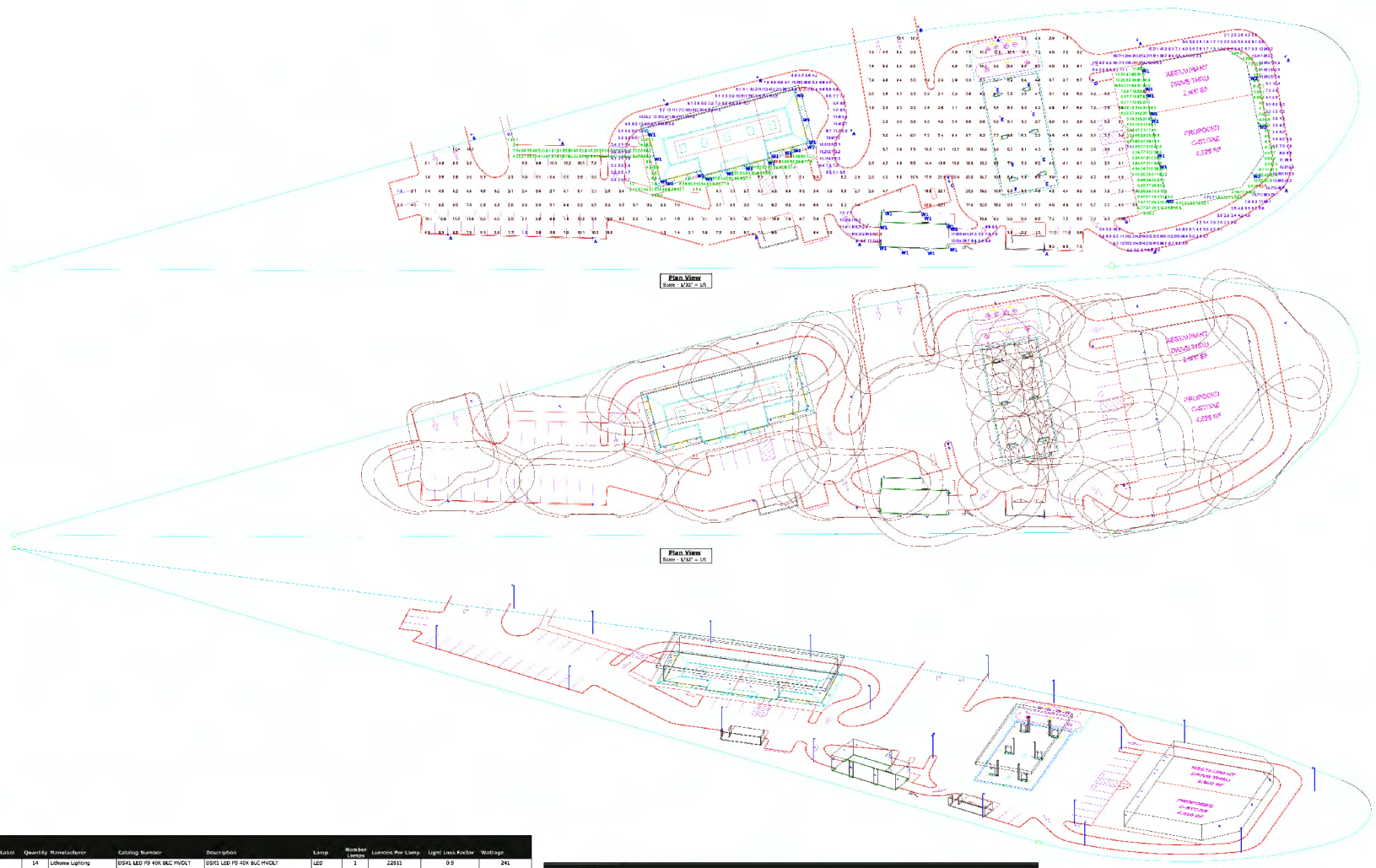

Schedule

Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage
	A	14	Lithonia Lighting	DSXL LED P9 40K BLC MVOLT	DSXL LED P9 40K BLC MVOLT	LED	1	22511	0.9	241
	B	2	Lithonia Lighting	DSXL LED P9 40K RCCO MVOLT	DSXL LED P9 40K RCCO MVOLT	LED	1	16825	0.9	241
	C	1	Lithonia Lighting	DSXZ LED P5 40K TSM MVOLT	DSXZ LED P5 40K TSM MVOLT	LED	1	51064	0.9	862
	D	2	Lithonia Lighting	DSXL LED P9 40K TFTM MVOLT	DSXL LED P9 40K TFTM MVOLT	LED	1	27578	0.9	241
	E	8	Lithonia Lighting	DSXSC LED 10C 700 40K TSM MVOLT	DSX SURFACE CANOPY FIXTURE WITH 1 LIGHT ENGINE, 700mA DRIVER, 4000K LEDs, TSM OPTIC.	LED	1	2945	0.9	26
	W1	34	LITHONIA	TA-31871-T3-W30	Tango 30 surface exterior downlight LED Type III	LED	1	3442	0.9	37.8
	W2	3	Lithonia Lighting	TWH LED 10C 1000 40K T3M MVOLT	TWH LED WITH 10 LEDs, @1000mA, 4000K AND TYPE 3 MEDIUM OPTICS	LED	1	3377	0.9	39

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
CAR WASH DRIVE-THRU	+	11.1 fc	22.3 fc	5.4 fc	4.1:1	2.1:1
DRIVE/PARKING	+	6.3 fc	22.3 fc	1.2 fc	18.6:1	5.3:1
RESTAURANT DRIVE-THRU	+	8.1 fc	18.3 fc	1.3 fc	14.1:1	6.2:1
RESTAURANT/C-STORE FRONT SIDEWALK	+	10.5 fc	27.7 fc	3.0 fc	9.2:1	3.5:1
RESTAURANT/C-STORE REAR SIDEWALK	+	6.7 fc	13.7 fc	1.7 fc	8.1:1	3.9:1
RETAIL BLDG DRIVE-THRU	+	8.5 fc	17.2 fc	1.7 fc	10.1:1	5.0:1
RETAIL BLDG SIDEWALKS	+	9.1 fc	22.8 fc	0.7 fc	32.6:1	13.0:1

Luminaire Locations

Label	MH
A	18.00
B	18.00
C	18.00
D	18.00
E	12.00
W1	8.00
W2	8.00

2/4/2019 JN M:\Mdata\169896\GIS\MXD\3-5 Lighting Plan.mxd

GREENVILLE PLAZA PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Lighting Plan

Michael Baker INTERNATIONAL

Source: Milestone Associates Imagineering

Figure 3.0-5

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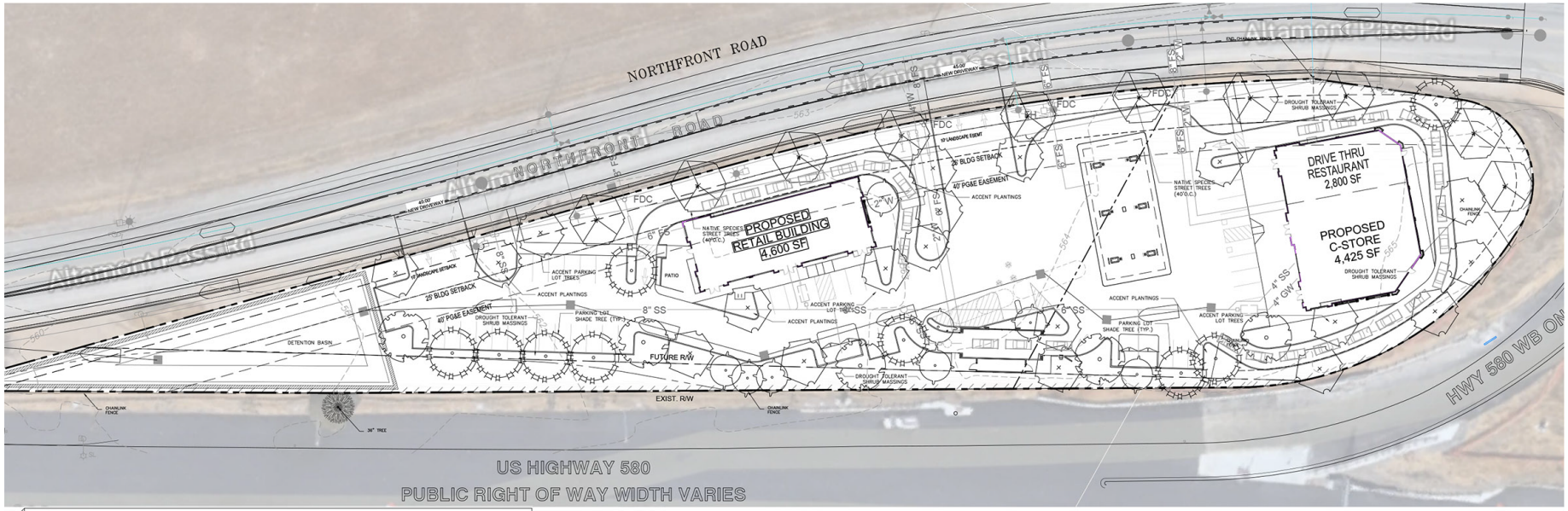

PROPOSED PLANT LEGEND

TREE SPECIES SYM.	BOTANICAL NAME	COMMON NAME	SIZE	QTY	WATER USAGE
	QUERCUS LOBATA	VALLEY OAK	15 GAL	10	LOW
	CELTIS OCCIDENTALIS	COMMON HACKBERRY	15 GAL	5	LOW
	PISTACIA CHINENSIS	CHINESE PISTACHE	15 GAL	9	LOW
	LAGERSTROEMIA I. x FAURIEI 'MUSKOGEE'	LAVENDER CRAPE MYRTLE	15 GAL	19	LOW
	ARBUTUS 'MARINA'	MARINA STRAWBERRY TREE	15 GAL	8	LOW

SHRUB SPECIES ABRV.	BOTANICAL NAME	COMMON NAME	SIZE	WATER USAGE
BP	BACCHARIS PILULARIS	COYOTE BUSH	5 GAL	LOW
CV	CALLISTEMON V. 'LITTLE JOHN'	DWARF BOTTLEBRUSH	5 GAL	LOW
HP	HESPERALOE PARVIFLORA	CORAL YUCCA	5 GAL	LOW
LS	LAVANDULA S. 'OTTO QUAST'	SPANISH LAVENDER	5 GAL	LOW
ND	NANDINA DOMESTICA 'GULFSTREAM'	DWARF HEAVENLY BAMBOO	5 GAL	LOW
OE	OLEA EUROPA 'LITTLE OLLIE'	LITTLE OLLIE DWARF OLIVE	5 GAL	V.LOW
PT	PHORMIUM T. 'JACK SPRATT'	JACK SPRATT NEW ZEALAND FLAX	5 GAL	LOW
PC	PRUNUS CAROLINIANA 'COMPACTA'	COMPACT LAUREL CHERRY	5 GAL	LOW
RO	ROSA SP. 'CORAL'	CORAL FLOWER CARPET ROSE	2 GAL	MED
SC	SALVIA CLEVELANDII 'WINNIFRED GILMAN'	WINNIFRED GILMAN CLEVELAND SAGE	5 GAL	LOW
TA	TRACHELOSPERMUM ASIATICUM	ASIATIC JASMINE	5 GAL	MED

GROUNDCOVER SPECIES SYM.	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	WATER USAGE
	TEUCRIUM LUCIDRYS	GERMANDER 'LUCIDRYS'	1 GAL/ FLATS	36" O.C.	LOW

NOTES & DESIGN GUIDELINE NOTES:

CITY OF LIVERMORE DESIGN GUIDELINES & ZONING CODE:

DG §3.1 ET AL.: PLANTING PLNAS INCLUDE A HIERARCHY OF PLANTINGS OF SIZE AND TYPES MARKING THE TRANSITION BETWEEN GROUND PLANE AND BUILDING FACADES. LANDSCAPING WILL ENHANCE THE BUILT ENVIRONMENT AND CONTRIBUTE TO THE SPACIAL ORGANIZATION OF THE SITE.

DG §3.2 ET AL.: STREET TREES ARE MINIMUM 24" BOX TREES AND SELECTED FROM LIST OF CITY-APPROVED TREES. TREES WILL BE PLANTED MINIMUM 3' BEHIND CURB AND TRIMMED TO MIN. 6' CLEAR. SELECTED TREES WILL HAVE MATURE CANOPY SPREAD OF 40'.

DG §3.5 ET AL.: TREES, INCLUDING TREE CLUSTERS ARE USED TO CREATE FOCAL ELEMENTS AND AUGMENT STREET TREE PLANTINGS.

DG §3.6 ET AL.: DRAINAGE SWALES WILL BE SPECIFIED BY ENGINEER AND DESIGNED PURSUANT TO THE GUIDELINES.

DG §4.1 ET AL.: PLANT AND LANDSCAPE MATERIALS SELECTED FOR ORNAMENTAL AND FUNCTIONAL CHARACTERISTICS, AND WILL ADD TO THE OVERALL FAVORABLE IMPRESSION OF LIVERMORE. PLANT SPECIES ARE HARDY, LOW-MAINTENANCE, AND GENERALLY DROUGHT TOLERANT SPECIES THAT ARE WELL ADAPTED FOR THE LOCAL CLIMATE. GROUNDCOVER CONSISTS PRIMARILY OF PLANT MATERIALS.

DG §4.2 ET AL.: MINIMUM 20% OF TREES ARE 24" BOX CONTAINER SIZE OR LARGER. ALL TREES ARE MINIMUM 15-GAL CONTAINER SIZE AND 1" TRUNK DBH. SELECTED PLANT MATERIAL IS SIZED AND SPACED SUCH THAT A LUSH AND MATURE APPEARANCE WILL BE ATTAINED WITHIN 2 YEARS OF PLANTING. ALL TREES WITHIN 5' OF A SIDEWALK OR WALL WILL BE PROVIDED WITH A ROOT BARRIER.

DG §4.3 ET AL.: LANDSCAPED AREAS ARE IRRIGATED WITH AUTOMATIC IRRIGATION SYSTEMS, PRIMARILY DRIP IRRIGATION. LANDSCAPE PLANS WILL COMPLY WITH THE CITY'S WATER EFFICIENT LANDSCAPE ORDINANCE.

DG §7.1 ET AL.: PARKING AREAS WILL PROVIDE FOR INTERIOR LANDSCAPING FOR SHAD AND AESTHETIC ENHANCEMENT. MINIMUM PARKING TO TREE RATIO IS 3 TREES FOR EVERY 10 PARKING SPACES (SINGLE-LOADED) OR 6 TREES FOR EVERY 20 PARKING SPACES (DOUBLE-LOADED). PLANTER AREAS WILL HAVE 5' MINIMUM DIMENSIONS. NO MORE THAN 10 PARKING SPACES IN A ROW WITHOUT AN INTERVENING LANDSCAPED PLANTER STRIP.

§§13.25 ET AL.: PLANTS HAVING SIMILAR WATER USE WILL BE GROUPED TOGETHER IN DISTINCT HYDROZONES. OTHER CONSIDERATIONS INCLUDE SUN EXPOSURE, SOIL CONDITION, AND SLOPE. A MINIMUM OF 75% OF THE PLANTS TO BE PLANTED SHALL BE LOW WATER USE PLANTS. PLANTS HAVE BEEN CROSS-REFERENCED WITH THE CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE INVASIVE PLANT SPECIES LIST, AND THE PROPOSED PLANTS ARE NOT DEEMED INVASIVE BY THE CDFA. WHERE A PLANT MAY BE ON THE LIST, PROJECT APPLICANT REQUESTS TO USE THE PLANT FOR THE REASONS THAT IT DOES NOT HAVE DETRIMENTAL ECOLOGICAL EFFECTS ON PARKS, GREENBELTS, WATER BODIES, WATER WAYS, AGRICULTURE, OR OPEN SPACES. THE IRRIGATION SYSTEM SHALL DELIVER WATER AT A RATE COMPATIBLE WITH THE SITE'S SOIL TYPES AND INFILTRATION RATES. IRRIGATION SYSTEMS SHALL CONTAIN A MINIMUM WATER METERS; CONTROLLERS; AUTOMATIC VALVES; SPRINKLERS; CHECK VALVES; LOW VOLUME DRIP EQUIPMENT;

TOTAL PROJECT AREA: 109,751 SF; TOTAL LANDSCAPE AREA: 40,926 SF - 37.3% OF TOTAL AREA OF PROJECT.
ETo RATE: LIVERMORE, CA, = 47.2
WUCOLS REGION: #1; SUSNET CLIMATE ZONE 14.

Source: Milestone Associates Imagineering

Landscape Plan

Figure 3.0-6

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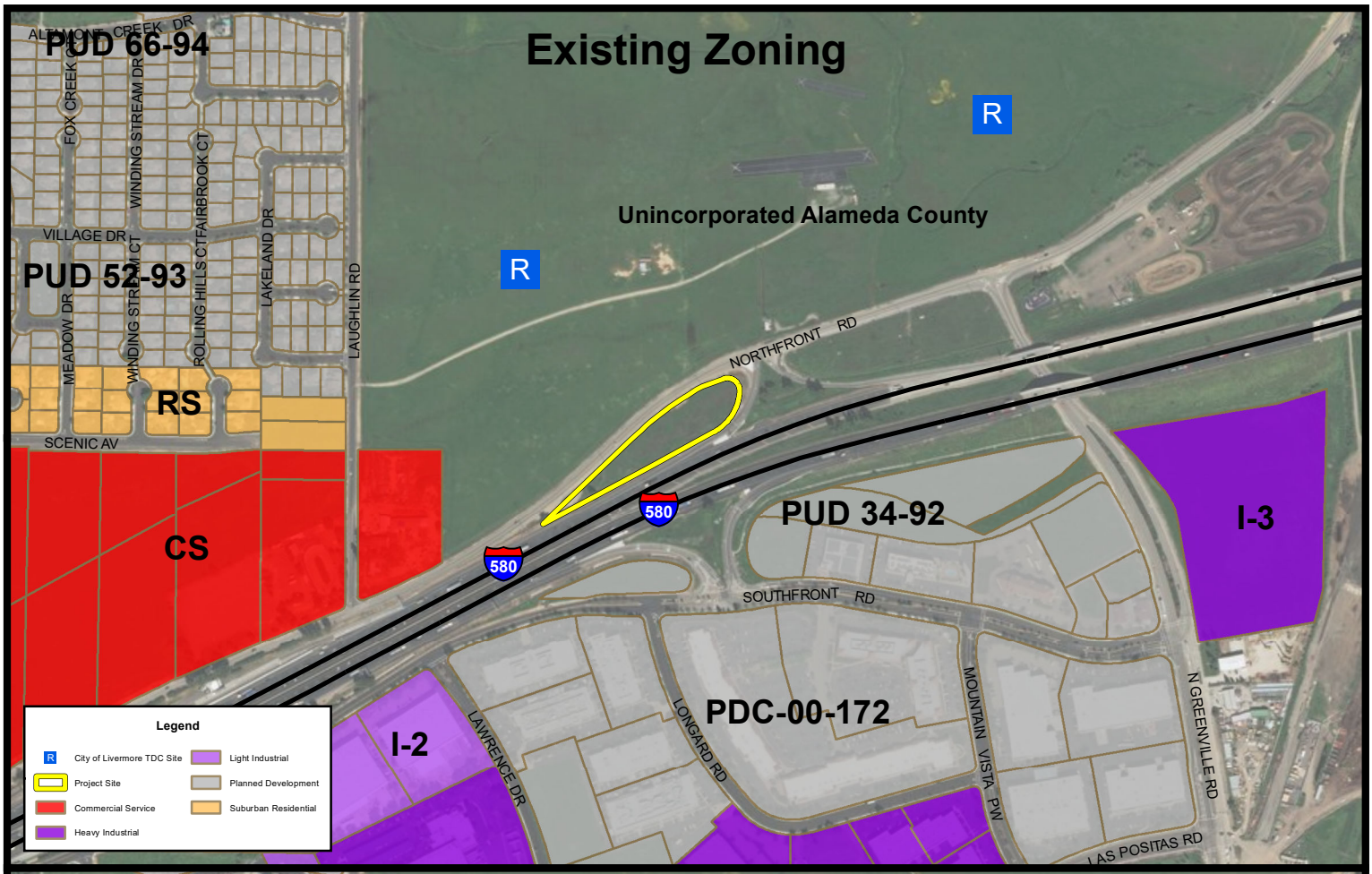

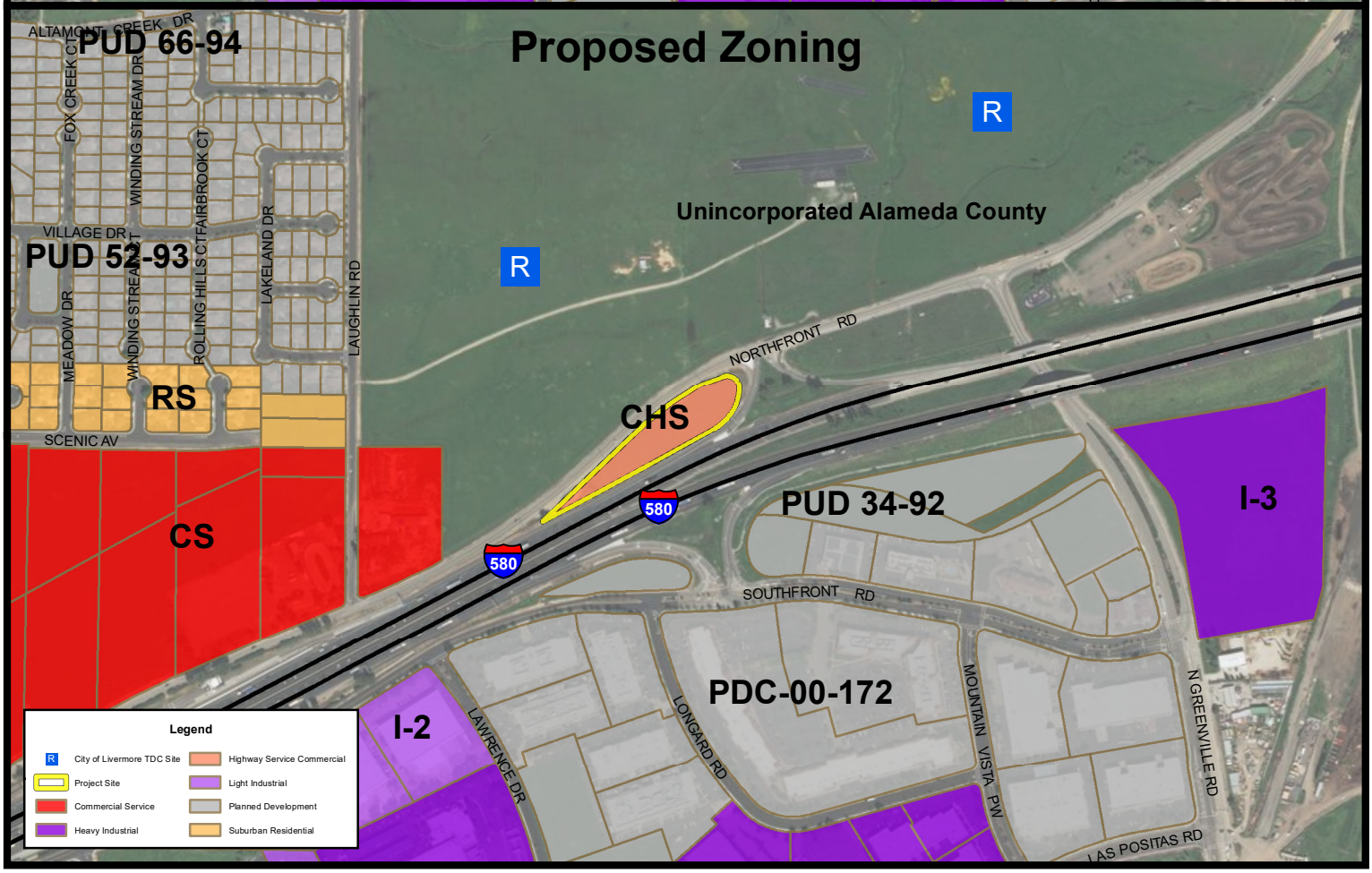

Michael Baker INTERNATIONAL

0 400 800 1,600 Feet

Source: Michael Baker International, City of LIvermore

GREENVILLE PLAZA PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Proposed Zoning Map Amendment

Figure 3.0-7

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		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.1	**AESTHETICS.** Except as provided in Public Resources Code Section 21099, 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)	In non-urbanized areas, substantially degrade the existing visual character or quality of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d)	Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

SETTING

Scenic Vistas

Scenic vistas are typically described as areas of natural beauty with features such as topography, watercourses, rock outcrops, and natural vegetation that contribute to the landscape's quality. Livermore's location in the Livermore Valley provides topographical and visual interest, and views of the surrounding hillsides are one of the city's primary visual characteristics and amenities. Hill and ridgeline views are available from many vantage points within the city limits (City of Livermore 2004). The long-range views from the project site are of hills and ridges to the north from westbound I-580, and of hills and ridges to the north and south from eastbound I-580.

Scenic Resources within Scenic Highways

Scenic resources typically include trees, rock outcroppings, and historic buildings within a state scenic highway. There are no trees, rock outcroppings, historic buildings, or other scenic resources on the site that add to the scenic quality of I-580 at the Northfront Road/westbound I-580 onramp. The California Department of Transportation (Caltrans) State Scenic Highway Program has designated I-580 in Livermore as an eligible state scenic highway (not officially designated; Caltrans 2018).

I-580 and several other roadways are designated local scenic corridors in the Livermore General Plan (City of Livermore 2004) for their quality of views. General Plan policies protect and enhance public views from and in these corridors. The I-580 scenic corridor provides views of Livermore's surrounding hillsides and ridgelines and is defined as the area within 3,500 feet of the freeway centerline and visible from the roadway. The project site is within the I-580 scenic corridor, Subarea 3, Subpart A. The General Plan establishes a view angle limit of 1.58 degrees for development in Subarea 3, Subpart A. This view angle establishes the maximum building height elevation.

The General Plan (City of Livermore 2004) requires a review of all site planning, architectural, and landscape architectural design proposed within scenic routes. This review ensures that proposed developments will be attractive from the highway and roads and consistent with existing development and the visual qualities of the scenic route.

Visual Character and Views

Visual character is the overall perceptible aesthetic quality of an area created by its unique combination of visual features such as form, bulk, scale, texture, color, and viewing range. Generally, the key factors in determining potential adverse impacts on visual character are (1) substantial changes to the existing physical features of the landscape that are characteristic of the region or locale; (2) the introduction of new features to the physical landscape that are perceptibly uncharacteristic of the region or locale or that become visually dominant from common view points; or (3) blocked or completely obscured scenic resources within the landscape.

The project site is teardrop shaped and surrounded by roadways; Northfront Road runs along the north and western boundaries of the project, the westbound I-580 on-ramp wraps around the eastern edge of the project, and I-580 runs along the southern border of the site. The site slopes upward toward I-580, which is approximately 3 feet higher than the site. A chain link fence separates the project site from I-580. Two areas of the project site along Northfront Road are used as vehicle turnouts. Existing conditions and views from the project site were photographed from the locations shown in **Figure 4.1-1**. The 2.52-acre project site is gently sloped to the west and is covered with nonnative weeds and grasses as seen in **Figures 4.1-2** and **4.1-3**. The site lacks visually important scenic resources and is not visually unique or distinctive. I-580 and its ramps, local roadways, and overhead electric infrastructure dominate the foreground views, with distant views of grass-covered rolling hills forming a backdrop, as shown in **Figures 4.1-2** and **4.1-3**.

The project site is generally visible towards the southeast from Laughlin Road, a north-south public roadway west of site, because the intervening terrain is flat. As viewed from residential development on the west side of Laughlin Road, approximately 1,000 feet north of Northfront Road and approximately one-quarter mile northeast of the site at the closest point, the ridgeline in the Altamont Pass area and I-580 dominates the long-range view, with mature trees in the vicinity of the project site adding to the visual landscape.

DISCUSSION OF IMPACTS

a) ***Less Than Significant Impact.*** The project site is within the I-580 scenic corridor, a designated scenic route in the General Plan. The project would be visible from westbound I-580, although motorists' views would be brief at freeway speed. To evaluate potential impacts on scenic views, the City prepared a view-angle analysis of the proposed project features pursuant to the General Plan and using a view-angle limit of 1.58 degrees as required for Subarea 3, Subpart A. The locations of the view angle analysis viewpoints are shown in **Figure 4.1-4.**

Results of the view analysis are shown in **Figure 4.1-5**. The gas station canopy, which would be the tallest feature on the site at 22 feet but farthest away, would exceed the 1.58-degree view angle established for Subarea 3, Subpart A of the I-580 Scenic Corridor by 4.6 feet at a point closest to I-580. The car wash, which would be the building closest to the westbound lane of I-580, would exceed the view angle by 3.7 feet at a point closest to I-580. The roof lines of Building A (convenience store) and Building B (retail) would exceed the view angle by 1 foot and 3.2 feet, respectively. The project applicant has

requested an amendment to the Scenic Corridor Element for the parcel to provide for this exceedance. Although the maximum height of the features would pierce the 1.58-degree view angle, this would not interfere substantially with mid-range and long-range scenic views, as further explained in Item c), below.

b) ***Less Than Significant Impact.*** I-580 is a locally designated scenic highway corridor, eligible but not officially designated by the State of California. The project site is visible from I-580. However, there are no visually significant trees, rock outcroppings, historic buildings, or other scenic resources on the site that add to the scenic quality of I-580 at the ramps that provide access to and from Altamont Pass/Northfront roads from I-580. Therefore, the project would not substantially degrade scenic resources within a state scenic highway and the project's impacts would be less than significant.

c) ***Less Than Significant Impact.*** As illustrated in **Figure 3.0-4a** through **Figure 3.0-4d**, the project buildings would be designed with a contemporary Mediterranean architectural style, with materials intended to create architectural interest and a color palette that would blend in with surrounding grasslands and hills. The orientation and spacing of buildings on the site would provide opportunities for views through the site, and landscaping would help visually soften building lines. Photosimulations depicting the project from two viewpoint locations were prepared, which demonstrate how the site plan, building design, and color palette would help the project blend in with its surroundings. Viewpoint locations are shown in **Figure 4.1-6.** Although project buildings would change the visual character of the project site and would pierce the 1.58-degree view angle, they would not be visually intrusive. As viewed from the westbound lane of I-580 at the east edge of the project site (**Figure 4.1-7a**), the small scale of the project would not overwhelm views of natural open space in the immediate vicinity of the project site or distant views. In a view from I-580 immediately perpendicular to the site (**Figure 4.1-7b**), there would still be distant views of ridges, and landscaping proposed by the project in the foreground would help soften architectural lines and would add a natural-appearing element to the view. In both cases, views of the project site would not last more than a few seconds because motorists would be traveling at freeway speed. Moreover, the City will require final design review, which will include the site plan, architecture, and landscaping, before issuing a building permit.

There would be no substantial effect on views of the Altamont Pass ridgelines to the southeast from Laughlin Road because of distance and the project's single-story design, which would be constructed on an area that would be lowered through excavation. This would also make the project visually unobtrusive relative to mid-range views of I-580 and low-rise features along Northfront Road and farther south, across I-580.

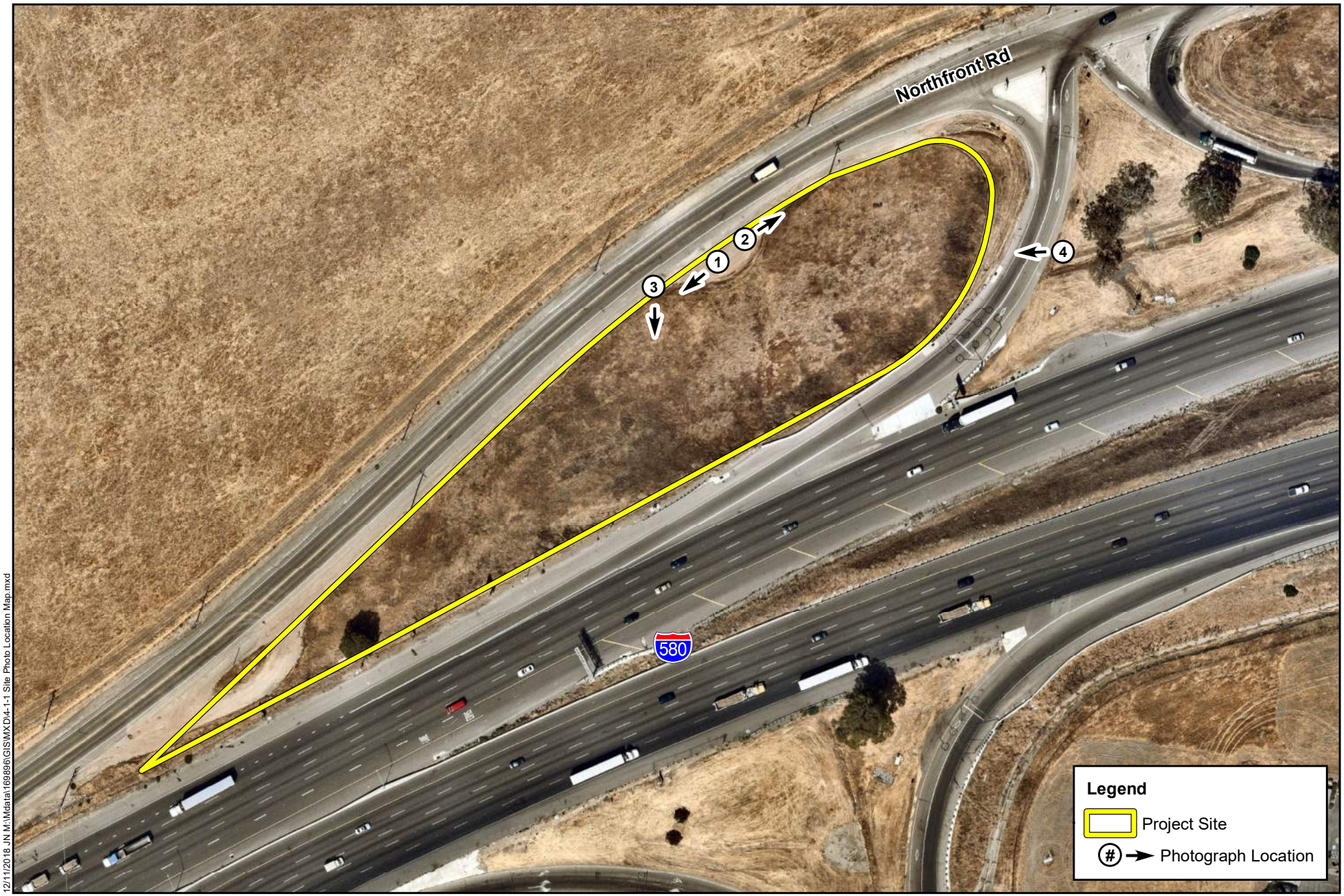
Therefore, the project would not substantially degrade the existing visual character or quality of the site and its surroundings, and the impact would be less than significant.

d) ***Less Than Significant Impact.*** The project site is undeveloped, and there currently are no sources of light or glare on the project site. Sources of nearby nighttime lighting include freeway lighting along I-580 and vehicles traveling along Northfront Road and I-580. Nighttime lighting of the highway and nearby commercial uses has already diminished nighttime views. The proposed project would include freestanding lighting in parking lots (18 feet tall) with downward-shielded fixtures and exterior building lighting. A photometric survey has been prepared for the project (**Figure 3.0-5**), which demonstrates there would be no substantial light spillover onto adjacent properties. The proposed retail building and fast-food drive-thru/convenience store would have windows facing south toward I-580.

These windows would be made of nonreflective material to help reduce glare potential. Sunlight and reflections from windshields on vehicles in the parking lot could also be a potential source of glare. Trees planted in the parking lot would provide shade, which would help reduce glare as well. While nighttime lighting from the project and potentially reflective surfaces such as windows would introduce new sources of daytime glare and nighttime glow. These additional sources of light and glare would be visible from surrounding land uses and would contribute to existing nighttime lighting and glare in the vicinity. However, the project would not be a substantial new source of light and glare relative to the existing sources in the immediate vicinity, including those on I-580. The final lighting plan and fixtures would be required to comply with the City's Design Standards and Guidelines for commercial development, Section F, *Lighting,* (City of Livermore 2004) before the City issues a building permit. Impacts would be less than significant.

Mitigation Measures

None required.



12/11/2018 JN M:\Mdata\169896\GIS\MXD\4-1-1 Site Photo Location Map.mxd

Michael Baker INTERNATIONAL

0 62.5 125 250 Feet

Source: Michael Baker International, Nearmap Sept. 14, 2018

GREENVILLE PLAZA PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Site Photograph Locations

Figure 4.1-1

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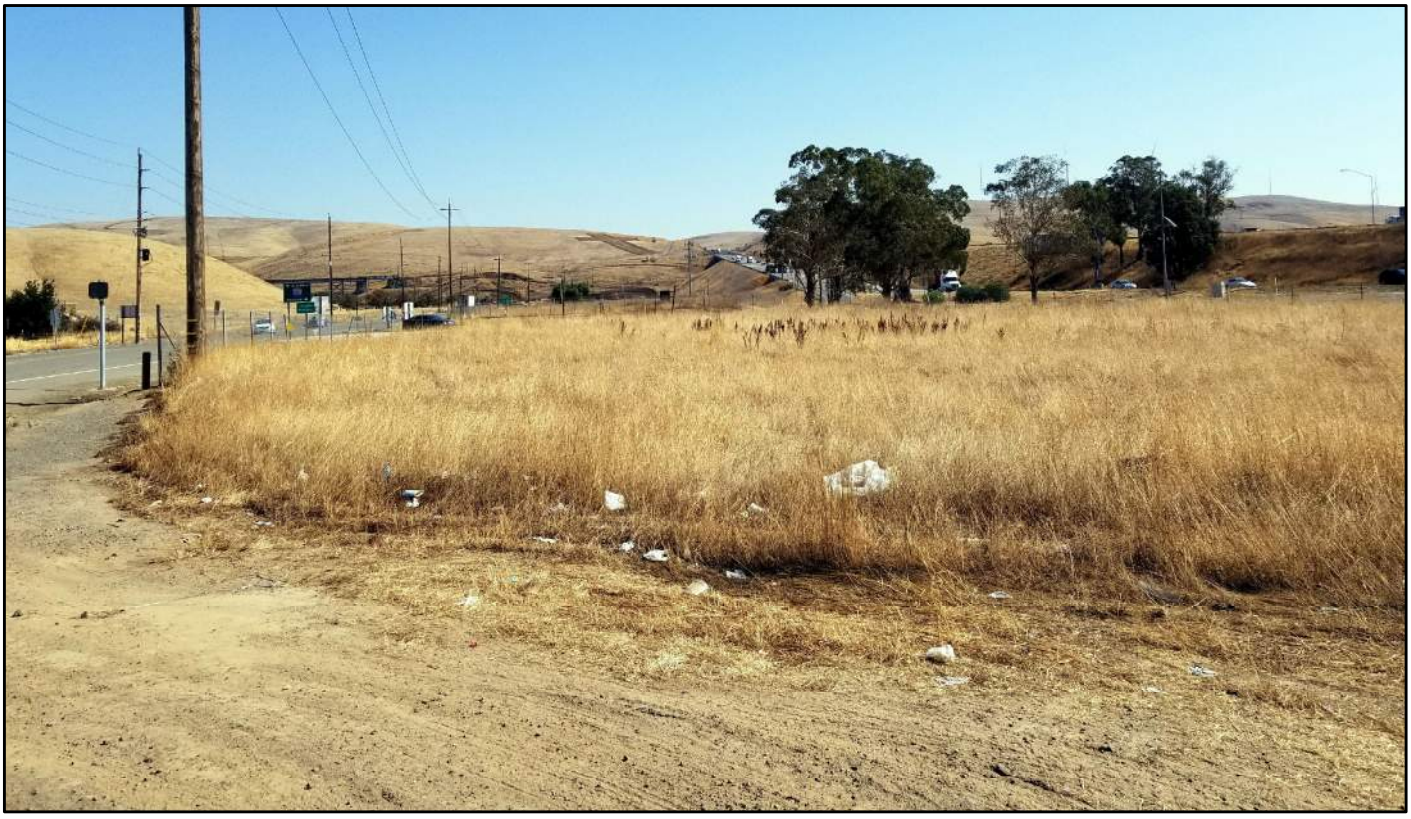
Photograph 1: Looking at the southwest corner of the project site from the dirt vehicle turnout area.



Photograph 2: Looking at the northeast corner of the project site from the dirt vehicle turnout area.

12/11/2018 JN M:\Mdata\169896\GIS\MXD\4-1-2 Site Photos 1 and 2.mxd AP

GREENVILLE PLAZA PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Site Photographs 1 and 2

Michael Baker INTERNATIONAL

Source: Michael Baker International

Figure 4.1-2

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Photograph 3: Looking south across the project site toward I-580.

Photograph 4: Looking west across the westbound I-580 onramp toward the project site .

12/11/2018 JN M:\Mdata\169896\GIS\MXD\4-1-3 Site Photos 3 and 4.mxd AP

Site Photographs 3 and 4

Source: Michael Baker International

Figure 4.1-3

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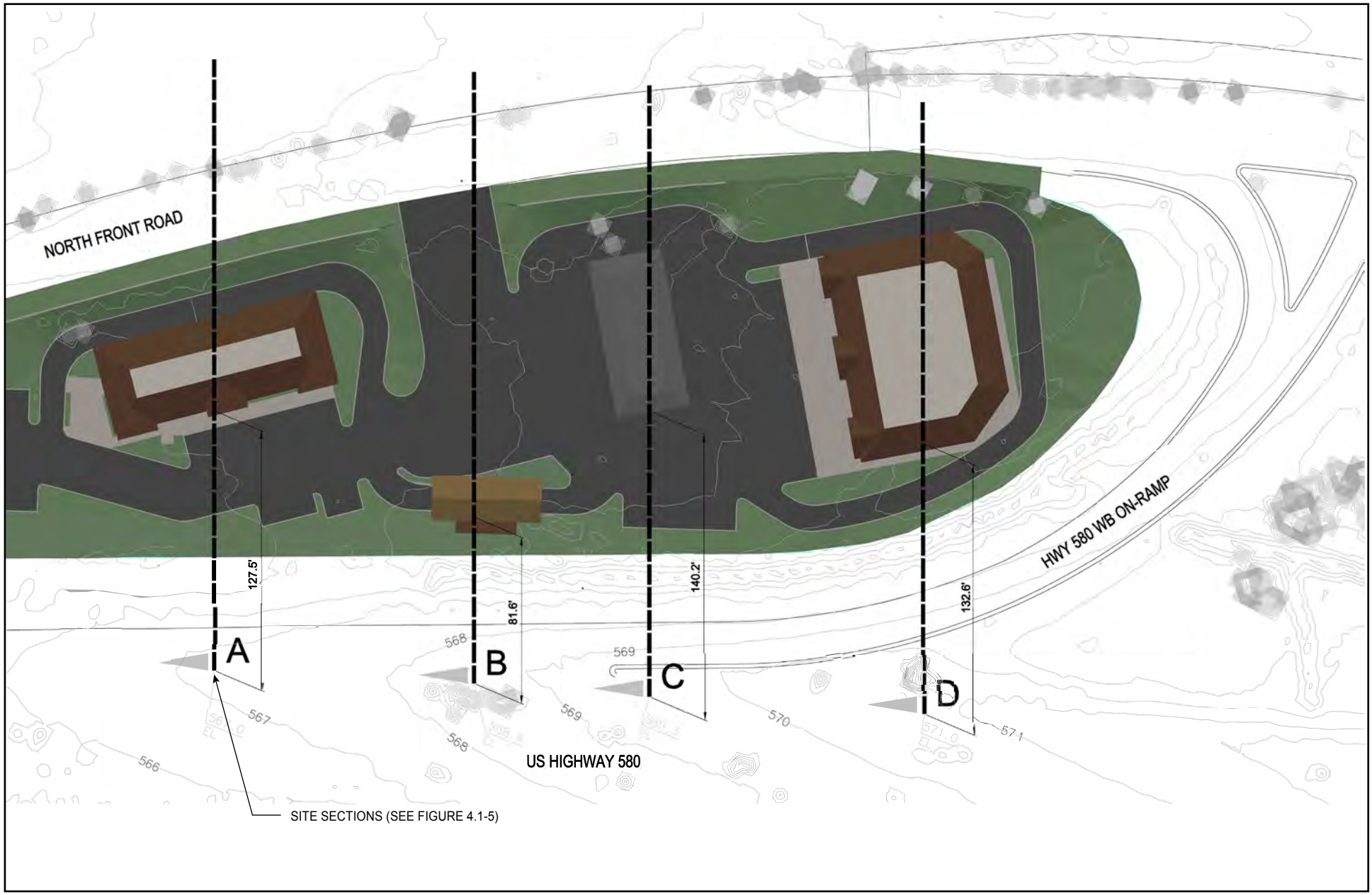

Michael Baker INTERNATIONAL

NOT TO SCALE

GREENVILLE PLAZA PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

View Angle Analysis Locations

Figure 4.1-4

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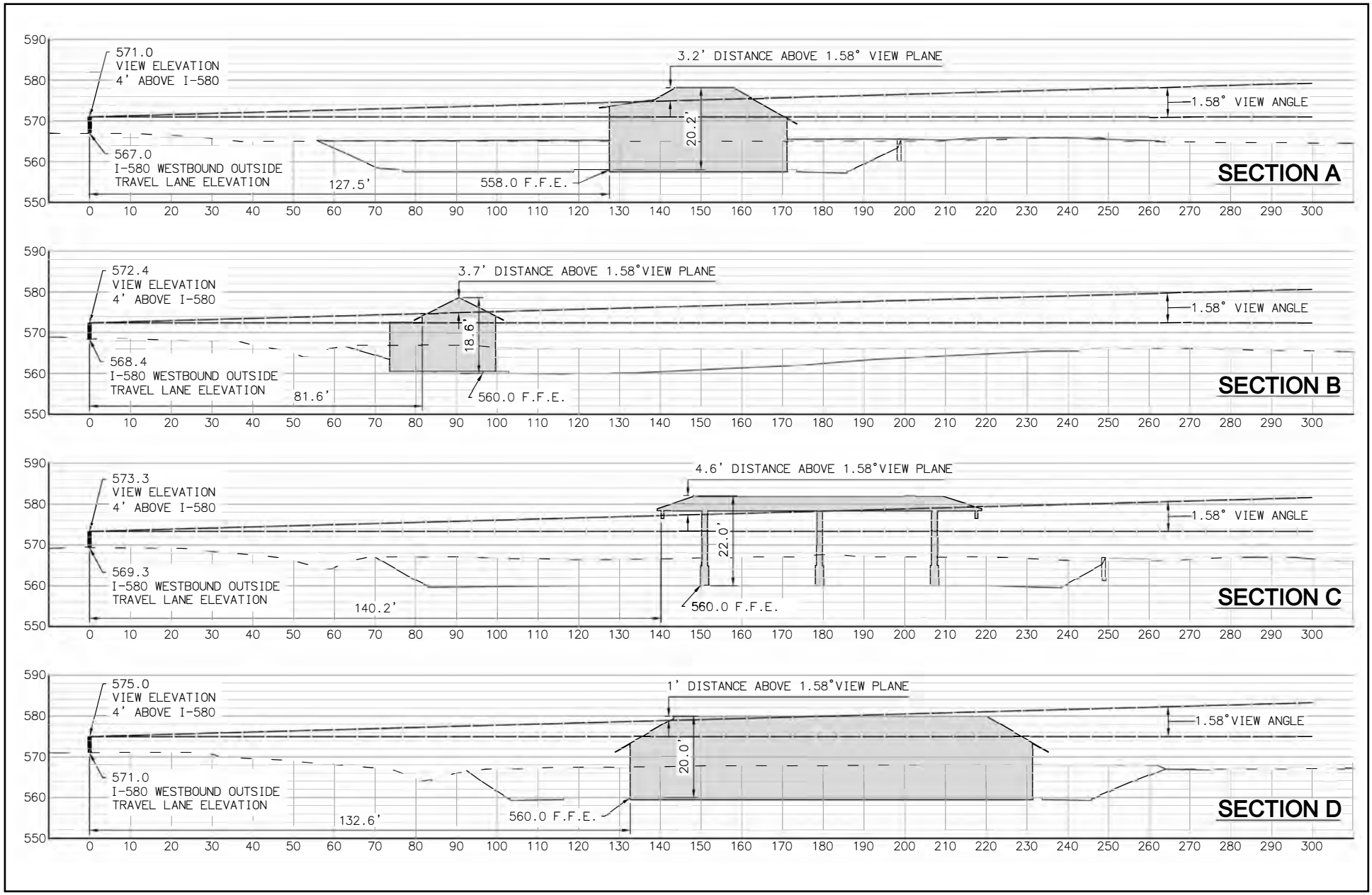

GREENVILLE PLAZA PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

View Angle Analysis Sections

Figure 4.1-5

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NOT TO SCALE

GREENVILLE PLAZA PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Photosimulations View Locations

Figure 4.1-6

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Existing Condition

Proposed Condition

GREENVILLE PLAZA PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Photosimulation View 1

Figure 4.1-7a

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Existing Condition

Proposed Condition

GREENVILLE PLAZA PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Photosimulation View 2

Figure 4.1-7b

Michael Baker INTERNATIONAL

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	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.2 AGRICULTURAL AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are 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, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. 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 nonagricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220(g), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined in Public Resources Code Section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forestland or conversion of forestland 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 nonagricultural use?	☐	☐	☐	☒

SETTING

Agricultural Resources

According to the California Department of Conservation (DOC), the project site is designated as Other Land (DOC 2018), which is defined as land not included in any other farmland mapping category. Common Other Land examples include low-density rural developments, brush, areas not suitable for livestock grazing, and strip mines. All adjacent parcels are either designated as Grazing Land or Other Land. There is no Important Farmland on the site or in the area.

Forestry Resources

The project site does not have trees and is not used for any type of forestry-related use. In addition, the site is not zoned for forestry use.

DISCUSSION OF IMPACTS

a) ***No Impact.*** The DOC designates the project site as Other Land. Therefore, the project would not convert Important Farmland to nonagricultural use. The project would have no impact.

b) ***No Impact.*** The project site is currently zoned Agricultural (A) by Alameda County and is proposed to be zoned Planned Unit Development upon annexation by the City. The project site is not subject to a Williamson Act contract (DOC 2015). Therefore, the proposed project would not conflict with existing zoning for agricultural use or require cancellation of a Williamson Act contract. No impact would occur.

c) ***No Impact.*** The site is not used for any type of forestry-related use and is not zoned for forestry use. Therefore, the project would not conflict with existing zoning for, or cause rezoning of, forestland, timberland, or timberland zoned Timberland Production. No impact would occur.

d) ***No Impact.*** The project site does not have any trees. As discussed above, the project would not result in the loss of any forestland or the conversion of any forestland to non-forest uses. No impact would occur.

e) ***No Impact.*** The project site and adjacent lands have not been designated as farmland. In addition, the project site is isolated from surrounding undeveloped areas by Northfront Road and the westbound I-580 on-ramp. Therefore, the project does not involve changes in the existing environment that could result in conversion of farmland to nonagricultural use. No impact would occur.

Mitigation Measures

None required.

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	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	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. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

SETTING

Air quality in a region is determined by the region's topography, meteorology, and existing air pollutant sources. The effect of these factors on air quality are discussed below, along with the existing regulations that apply to the San Francisco Bay Area Air Basin (SFBAAB), which encompasses the project site. The regulatory agency is the Bay Area Air Quality Management District (BAAQMD).

Air Basin Characteristics

San Francisco Bay Area Air Basin

The SFBAAB comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties, the southern portion of Sonoma County, and the southwestern portion of Solano County. There are 11 climatological subregions within the SFBAAB. The project site is in the Livermore Valley climatological subregion of the SFBAAB. This subregion is a sheltered inland valley near the eastern border of the air basin.

Air pollution potential is high in the Livermore Valley, especially for photochemical pollutants in summer and fall. High temperatures increase the potential for ozone to build up. The valley not only traps locally generated pollutants but can be the receptor of ozone and ozone precursors from San Francisco, Alameda, Contra Costa, and Santa Clara Counties. On days with a northeasterly wind, which are most common in the early fall, winds can carry ozone from the San Joaquin Valley to the Livermore Valley.

During the winter, the sheltering effect of the valley, its distance from moderating water bodies, and the presence of a strong high-pressure system all contribute to the development of strong surface-based temperature inversions. Pollutants such as carbon monoxide and particulate matter, generated by motor vehicles, fireplaces, and agricultural burning, can become

concentrated. Air pollution problems could intensify because of population growth and increased commuting to and through the subregion (BAAQMD 2017b).

Pollution Potential Related to Emissions

Although air pollution is strongly influenced by climate and topography, air pollution levels depend on air emissions from nearby sources and emissions transported from other areas. Air pollutant emissions area generally highest in areas with high population densities, high motor vehicle use, and/or industrialization. Contaminants created by photochemical processes in the atmosphere, such as ozone, may result in high concentrations many miles downwind from the sources of their precursor chemicals (BAAQMD 2017b).

Criteria Air Pollutants

Air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. These regulated air pollutants are known as criteria air pollutants and are categorized into primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxide (NO_X), sulfur dioxide (SO_2), coarse particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$), lead, and fugitive dust are primary air pollutants. Of these, CO, SO_2, PM_{10}, and $PM_{2.5}$ are criteria pollutants. ROG and NO_X are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O_3), nitrogen dioxide (NO_2), PM_{10} , and $PM_{2.5}$ are the principal secondary pollutants. A description of each of the primary and secondary criteria air pollutants and their known general health effects is presented in **Table 4.3-1**. Specific adverse health effects to individuals or population groups induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables such as cumulative concentrations, local meteorology and atmospheric conditions, and the number and character of exposed individuals (e.g., age, gender). Criteria pollutant precursors (ROG and NO_X) affect air quality on a regional scale, typically after significant delay and distance from the pollutant source emissions. Health effects related to ozone and NO_2 are, therefore, the product of emissions generated by numerous sources throughout a region. Emissions of criteria pollutants from vehicles traveling to or from the project site (mobile emissions) are distributed nonuniformly in location and time throughout the region, wherever the vehicles may travel.

TABLE 4.3-1
CRITERIA AIR POLLUTANTS – SUMMARY OF COMMON SOURCES AND EFFECTS

Pollutant	Major Man-Made Sources	Human Health & Welfare Effects
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO_2)	A reddish-brown gas formed during fuel combustion for motor vehicles, energy utilities and industrial sources.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Contributes to nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Ozone (O_3)	Formed by a chemical reaction between reactive organic gases (ROGs) and nitrous oxides (NOx) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, solvents, paint, and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
Particulate Matter (PM_{10} and $PM_{2.5}$)	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles, and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
Sulfur Dioxide (SO_2)	A colorless, nonflammable gas formed when fuel containing sulfur is burned. Examples are refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, can damage marble, iron and steel; damage crops and natural vegetation. Impairs visibility.

Source: CAPCOA 2018

Ambient Air Quality

As required by the federal Clean Air Act, the US Environmental Protection Agency (EPA) has established health-based National Ambient Air Quality Standards (NAAQS) for the criteria pollutants described above. California has established more stringent California Ambient Air Quality Standards (CAAQS) for the criteria air pollutants listed above through the California Clean Air Act of 1988 (CCAA), and has also established standards for additional pollutants, including sulfates, hydrogen sulfide (H_2S), vinyl chloride and visibility-reducing particles. Air quality standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Areas with air quality that exceed adopted air quality standards are designated as nonattainment areas for the relevant air pollutants, while areas that comply with air quality standards are designated as attainment areas for the relevant air pollutants. The SFBAAB's current attainment status with regard to federal and state ambient air quality standards is summarized in **Table 4.3-2**. The region is nonattainment for federal O_3 and $PM_{2.5}$ standards, as well as for state O_3, PM_{10}, and $PM_{2.5}$ standards (BAAQMD 2017b).

TABLE 4.3-2
FEDERAL AND STATE AMBIENT AIR QUALITY ATTAINMENT STATUS FOR THE SAN FRANCISCO BAY AREA AIR BASIN

Pollutant	Averaging Time	California Standards		National Standards	
		Concentration	Attainment Status	Concentration	Attainment Status
Ozone (O_3)	8 Hours	0.070 ppm (137$\mu g/m^3$)	N	0.070 ppm	N
	1 Hour	0.09 ppm (180 $\mu g/m^3$)	N	No standard	Not applicable
Carbon Monoxide (CO)	8 Hours	9.0 ppm (10 mg/m^3)	A	9 ppm (10 mg/m^3)	A
	1 Hour	20 ppm (23 mg/m^3)	A	35 ppm (40 mg/m^3)	A
Nitrogen Dioxide (NO_2)	1 Hour	0.18 ppm (339 $\mu g/m^3$)	A	0.100 ppm	U
	Annual Arithmetic Mean	0.030 ppm (57 $\mu g/m^3$)	U	0.053 ppm (100 $\mu g/m^3$)	A
Sulfur Dioxide (SO_2)	24 Hours	0.04 ppm (105 $\mu g/m^3$)	A	0.14 ppm (365/$\mu g/m^3$)	A
	1 Hour	0.25 ppm (665 $\mu g/m^3$)	A	0.075 ppm (196/$\mu g/m^3$)	A
	Annual Arithmetic Mean	No standard	Not applicable	0.030 ppm (80/$\mu g/m^3$)	A
Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 $\mu g/m^3$	N	No standard	Not applicable
	24 Hours	50 $\mu g/m^3$	N	150 $\mu g/m^3$	U
Particulate Matter – Fine ($PM_{2.5}$)	Annual Arithmetic Mean	12 $\mu g/m^3$	N	12 $\mu g/m^3$	U/A
	24 Hours	No standard	Not applicable	35 $\mu g/m^3$	N
Sulfates	24 Hours	25 $\mu g/m^3$	A	No standard	Not applicable
Lead	30-Day Average	1.5 $\mu g/m^3$	A	No standard	Not applicable
	Calendar Quarter	No standard	Not applicable	1.5 $\mu g/m^3$	A
	Rolling 3-Month Average	No standard	Not applicable	0.15 $\mu g/m^3$	U
Hydrogen Sulfide	1 Hour	0.03 ppm (42 $\mu g/m^3$)	U	No standard	Not applicable
Vinyl Chloride (chloroethene)	24 Hours	0.01 ppm (26 $\mu g/m^3$)	No information available	No standard	Not applicable
Visibility-Reducing Particles	8 Hours (10:00 to 18:00 PST)	0.23 per km extinction coefficient	U	No standard	Not applicable

Source: BAAQMD 2017b
Notes: A = attainment; N = nonattainment; U = unclassified
mg/m^3 = milligrams per cubic meter; ppm = parts per million; ppb = parts per billion; $\mu g/m^3$ = micrograms per cubic meter

Based on the nonattainment status, O_3, PM_{10}, and $PM_{2.5}$ are the pollutants most intensely affecting the SFBAAB. Concentrations near the project site can be inferred from ambient air quality measurements conducted by the BAAQMD at nearby air quality monitoring stations. The project site is located between two air quality monitoring stations, the Livermore-13224 Patterson Pass Road monitoring station (located approximately 4.5 miles to the southeast) and the Livermore-793 Rincon Avenue monitoring station (located approximately 4.75 miles to the southwest). **Table 4.3-3** summarizes the ambient air quality data published since 2015. Although the Livermore-13224 Patterson Pass Road station is closer to the project site, $PM_{2.5}$ data from that station were not available. Therefore, the table below presents $PM_{2.5}$ data from the Livermore-793 Rincon Avenue station. There were no monitoring stations in the region with data on PM_{10} concentrations.

TABLE 4.3-3
SUMMARY OF AMBIENT AIR QUALITY DATA

Pollutant Standards	2015	2016	2017	2018
Ozone				
Max 1-hour concentration (ppm) state	0.099	0.109	0.057	–
Number of days above state 1-hour standard	4	5	0	–
Max 8-hour concentration (ppm) state	0.083	0.087	.051	–
Number of days above state 8-hour standard (0.070 ppm)	6	15	0	–
Max 8-hour concentration (ppm) federal	0.082	0.087	.051	–
Number of days above federal 8-hour 2015 standard (0.070 ppm)	5	15	0	–
Fine Particulate Matter ($PM_{2.5}$)				
Annual arithmetic mean concentration ($\mu g/m^3$) state/federal	8.7	7.4	8.4	11.2
Exceed state/federal annual arithmetic mean standard (12 $\mu g/m^3$)	No	No	No	No
Max 24-hour concentration ($\mu g/m^3$) federal	31.1	22.3	41.5	172.6
Number of days above federal standard (35 $\mu g/m^3$)	0	0	2	14.6

Source: CARB 2020 (2015-2017 most recent data available for ozone; no data for 2018 [indicated by –]
Notes: µg/m3 = micrograms per cubic meter; ppm = parts per million

Air Quality Attainment Plan

The BAAQMD is responsible for preparing plans to attain ambient air quality standards in the SFBAAB. The BAAQMD prepares ozone attainment plans for the national ozone standard and clean air plans for the California standard, both in coordination with the Metropolitan Transportation Commission and the Association of Bay Area Governments (ABAG).

- The BAAQMD adopted its 2017 Clean Air Plan in April 2017. The 2017 Clean Air Plan addresses nonattainment of the state 1-hour ozone standard in the air basin. The Clean Air Plan establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving state (California) and national air quality standards. The Clean Air Plan's pollutant control strategies are based on the latest scientific and technical information and planning assumptions, updated emission inventory methodologies for

various source categories, and the latest population growth projections and vehicle miles traveled (VMT) projections for the region. The Clean Air Plan defines a control strategy that the BAAQMD and its partners will implement to (1) reduce emissions and decrease ambient concentrations of harmful pollutants; (2) safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, with an emphasis on protecting the communities most heavily affected by air pollution; and (3) reduce greenhouse gas emissions. The Bay Area 2017 Clean Air Plan addresses four categories of pollutants (BAAQMD 2017a):

- Ground-level ozone and its key precursors, ROG, and NOx
- Particulate matter: primary $PM_{2.5}$, as well as precursors to secondary $PM_{2.5}$
- Toxic air contaminants
- Greenhouse gases

The Clean Air Plan provides local guidance for the State Implementation Plan, which includes the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards.

Toxic Air Contaminants

Toxic air contaminants (TACs), or hazardous air pollutants, can result in adverse health effects. The California Air Resources Board (CARB) has designated 244 compounds as TACs. Many TACs are confirmed or suspected carcinogens or are known or suspected to cause birth defects or neurological damage. Secondly, many TACs can be toxic at very low concentrations. For carcinogens, there are no established safe air concentration thresholds.

Industrial facilities and mobile sources can be substantial sources of TACs. However, common urban facilities also produce TAC emissions, such as gasoline stations (benzene), hospitals (ethylene oxide), and dry cleaners (perchloroethylene). Automobile exhaust also contains TACs such as benzene and 1,3-butadiene. In addition, diesel particulate matter (diesel PM) is a TAC that is not a single substance but a complex mixture of hundreds of substances. BAAQMD research indicates that mobile-source emissions of diesel PM, benzene, and 1,3-butadiene represent a substantial portion of human exposure to TACs in the SFBAAB.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others because of the types of human receptors present or the activities that occur there. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases. Residential areas are sensitive receptors because residents (including children and the elderly) tend to be at home for extended periods, resulting in chronic exposure. Recreational land uses are moderately sensitive to air pollution.

The closest sensitive receptors are a group of single-family houses in the California Promenade neighborhood, approximately 1,325 feet (0.25 miles) to the northwest, and the Altamont Creek Elementary School, approximately 3,165 feet (0.6 miles) to the northwest.

Odors

The land uses identified by the BAAQMD as sources of odors include wastewater treatment plants, wastewater pumping facilities, sanitary landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing and fiberglass manufacturing facilities, painting/coating operations, rendering plants, coffee roasters, food processing facilities, confined

animal facilities, feedlots, dairies, green waste and recycling operations, and metal smelting plants. If a source of odors is proposed to be located near existing or planned sensitive receptors, this could have the potential to cause operational-related odor impacts. The BAAQMD recommends screening criteria based on the distance between the receptor and the types of sources known to generate odors. None of these potential odor sources is within the vicinity of the project site.

DISCUSSION OF IMPACTS

a) ***Less Than Significant Impact.*** The applicable air quality plan is the BAAQMD 2017 Clean Air Plan. Criteria for determining consistency with the Clean Air Plan include the following indicators:

- Consistency Criterion No. 1: The project supports the primary goals of the Clean Air Plan.
- Consistency Criterion No. 2: The project conforms to applicable control measures from the Clean Air Plan and does not disrupt or hinder the implementation of any Clean Air Plan control measures.

The primary goals to which Consistency Criterion No. 1 refer are compliance with the state (California) and national ambient air quality standards. As shown below, the proposed project would not exceed the short-term construction standards with the implementation of BAAQMD basic construction mitigation measures (BCMMs). Similarly, the project would not exceed the long-term operational standards during project operation. Thus, the project would be consistent with Criterion No. 1.

Concerning Consistency Criterion No. 2, BAAQMD air quality planning control measures are based on the Clean Air Plan's emissions inventories, which are derived from projected population growth and VMT for the region. These inventories are based on the growth predicted in regional and community general plans, including associated development projects. Projects that result in an increase in population or employment growth beyond that identified in regional or community plans could result in increases in VMT and mobile source emissions not accounted for in the BAAQMD's air quality plans, making the projects inconsistent with the Clean Air Plan.

The proposed project site is a 2.52-acre site in the County of Alameda. The proposed project would annex the 2.52-acre site, which has been designated as Highway Commercial (HC) by the City of Livermore. The project would not generate a substantial additional number of VMT because as a convenience center, most customers would stop as they pull onto or off the highway. The proposed project would not increase population or substantially increase employment and would be consistent with Criterion No. 2 because it would not increase air emissions over those accounted for in the City General Plan and thus BAAQMD's Clean Air Plan. Therefore, the proposed project would not conflict with or obstruct implementation of the Clean Air Plan, and this impact would be less than significant.

b) ***Less Than Significant Impact.*** The BAAQMD has developed project-level thresholds of significance for air emissions. The project-level threshold for construction is 54 pounds per day (lbs/day) of ROG, NOx, and/or exhaust-related $PM_{2.5}$, and no more than 82 lbs/day of exhaust-related PM_{10}. Concerning fugitive dust-related $PM_{2.5}$ and PM_{10} emissions generated during construction, the BAAQMD requires implementation of its BCMMs to reduce dust emissions to less than significant levels. During operations, the threshold is 54

lbs/day of ROG, NOx, and/or exhaust-related $PM_{2.5}$ and no more than 82 lbs/day of exhaust-related PM_{10} (BAAQMD 2017b).

Construction-Generated Emissions

The proposed project would generate short-term emissions from construction activities such as site grading, asphalt paving, building construction, and architectural coatings (e.g., painting). Common construction emissions and sources include fugitive dust from grading, fuel combustion by mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby. Off-road construction equipment is often diesel-powered and can be a substantial source of NOx emissions, in addition to PM_{10} and $PM_{2.5}$ emissions. Worker commute trips and architectural coatings are the predominant sources of ROG emissions.

Predicted maximum daily construction-generated emissions are presented in **Table 4.3-4**. Equipment emissions were quantified using the California Emissions Estimator (CalEEMod) default construction equipment list based on the size of the project and the proposed land use. The total construction duration would be 12 months.

As shown in **Table 4.3-4**, all criteria pollutant emissions would remain below their respective thresholds. The BAAQMD recommends implementation of the Basic Construction Mitigation Measures (BCMMs) (see **Table 4.3-5**) to reduce construction fugitive dust impacts to less than significant. Construction projects in Livermore are required to implement BCMMs per General Plan Policy OSC-6.1.P1. Predicted construction-related criteria pollutant and precursor emissions with the BCMMs applied are shown in **Table 4.3-6.**

TABLE 4.3-4
CONSTRUCTION-RELATED CRITERIA POLLUTANT AND PRECURSOR EMISSIONS – UNMITIGATED
(MAXIMUM POUNDS PER DAY)

Construction Activities	ROG	NOx	Exhaust PM_{10}	Exhaust $PM_{2.5}$	Fugitive Dust PM_{10}	Fugitive Dust $PM_{2.5}$
Maximum Daily Emissions	3.6	31.7	1.2	1.1	1.6	0.6
BAAQMD Potentially Significant Impact Threshold	54	54	82	54	Basic Construction Mitigation Measures	Basic Construction Mitigation Measures
Exceed BAAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

*Source: CalEEMod version 2016.3.2. See **Appendix A** for emission model outputs.*

TABLE 4.3-5
BAAQMD BASIC CONSTRUCTION MITIGATION MEASURES

BAAQMD Basic Construction Mitigation Measures
1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of the California Code of Regulations). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
8. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The air district's phone number shall also be visible to ensure compliance with applicable regulations.

Source: BAAQMD 2017b

TABLE 4.3-6
CONSTRUCTION-RELATED CRITERIA POLLUTANT AND PRECURSOR EMISSIONS – WITH BAAQMD BASIC CONSTRUCTION MITIGATION MEASURES
(MAXIMUM POUNDS PER DAY)

Construction Activities	ROG	NO_X	Exhaust PM_{10}	Exhaust $PM_{2.5}$	Fugitive Dust PM_{10}	Fugitive Dust $PM_{2.5}$
Maximum Daily Emissions	3.6	31.7	1.2	1.1	1.1	0.4
BAAQMD Potentially Significant Impact Threshold	54	54	82	54	Basic Construction Mitigation Measures	Basic Construction Mitigation Measures
Exceed BAAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

*Source: CalEEMod version 2016.3.2. See **Appendix A** for emission model outputs.*

Notes: All construction projects in Livermore are required to implement the BAAQMD's Basic Construction Mitigation Measures as part of a required construction-period air pollution control plan per City General Plan Policy OSC-6.1.P1. Emissions estimates account for the quantifiable components of the BAAQMD's Basic Construction Mitigation Measures, specifically watering unpaved portions of the construction site twice daily, limiting off-road equipment to speeds of 15 mph, and removing dirt track-out on adjacent public roads with a wet power vacuum once daily

All construction-related criteria pollutant and precursor emissions would be below the BAAQMD significance thresholds without the need for any additional mitigation beyond BCMMs. Therefore, construction-generated emissions impacts would be less than significant. Because the proposed project would not exceed significance thresholds, the proposed project would not result in a net increase of emissions that would interfere with regional air quality planning efforts. Therefore, this impact would be considered less than cumulatively considerable.

Operational Emissions

The proposed project would result in long-term operational emissions of criteria air pollutants and ozone precursors (i.e., ROG and NOx). These emissions would predominantly result from motor vehicle use (including restaurant drive-through and car wash idling emissions) and energy required for business operations (i.e., lighting and heating). Long-term operational emissions are summarized in **Table 4.3-7.**

As shown, all criteria pollutant emissions would remain below BAAQMD significance thresholds. Therefore, emissions due to long-term operations would be less than significant and the project would not result in a net increase of emissions that would interfere with regional air quality planning efforts. Therefore, this impact would be less than cumulatively considerable.

TABLE 4.3-7
LONG-TERM OPERATIONAL EMISSIONS – UNMITIGATED

Source	Emissions			
	ROG	NO_x	Exhaust PM_{10}	Exhaust $PM_{2.5}$
Summer Emissions (Pounds per Day)				
Project Operations	3.1	14.1	0.06	0.06
Winter Emissions (Pounds per Day)				
Project Operations	2.6	14.1	0.06	0.06
Daily Threshold Comparison (Pounds per Day)				
BAAQMD Potentially Significant Impact Threshold (Daily Emissions)	54	54	82	54
Exceed BAAQMD Daily Threshold?	No	No	No	No
Annual Emissions (Tons per Year)				
Project Operations	0.5	2.6	0.02	0.01
Annual Threshold Comparison (Tons per Year)				
BAAQMD Potentially Significant Impact Threshold (Annual Emissions)	10	10	15	10
Exceed BAAQMD Annual Threshold?	No	No	No	No

*Source: CalEEMod version 2016.3.2 and EMFAC 2017 (idling emissions). See **Appendix A** for emission model outputs.*

c) Less Than Significant Impact.

Toxic Air Contaminants (TACs) Generated During Construction Activities

The 2.52-acre undeveloped project site is bordered by I-580 on the south, and vacant land to the north, east and west. The closest sensitive receptors are a group of single-family homes in the California Promenade neighborhood located approximately 1,325 feet (.25 miles) to the northwest and the Altamont Creek Elementary School located approximately 3,165 feet (0.6 miles) to the northwest.

Construction would result in the generation of diesel particulate matter (diesel PM) emissions from the use of off-road diesel equipment required for grading and excavation, paving, and other construction activities. The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer.

The use of diesel-powered construction equipment during grading and excavation would be temporary. The duration of exposure would be short (less than 1 year) and intermittent, and exhaust from construction equipment dissipates rapidly. Current models and methodologies for conducting health risk assessments typically address longer-term exposure periods of 30, 40, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. Additionally, construction would occur in an area of less than 3 acres, and the closest sensitive receptors are over 1,000 feet from the site. Construction projects on a site of such size represent less than significant health risk impacts because of (1) limitations on the number of off-road diesel equipment that can operate, (2) the small amount of dust-generating ground disturbance compared to larger construction sites, and (3) the short duration of construction. The proposed project would implement the BAAQMD BCMMs (see **Table 4.3-5**) as required by General Plan Policy OSC-6.1, and construction would be subject to and would comply with California regulations limiting the idling of heavy-duty construction equipment to no more than 5 minutes, which would further reduce sensitive receptors' exposure to these temporary diesel PM emissions. For these reasons, diesel PM generated by construction activities would not expose sensitive receptors to substantial amounts of TACs and construction impacts from TAC emissions would be less than significant.

TACs Generated During Project Operations

Activities at gas stations such as fuel dispensing and fuel delivery transfer and storage can release TACs into the air, including the organic compounds benzene, toluene, and xylene. The BAAQMD CEQA Guidelines (BAAQMD 2017b) recommend a 1,000-foot screening radius around a project site to identify any community health risks resulting from siting a new source of TACs. Based on this criterion, the proposed project operations would not be a stationary source of TAC emissions that would present a health risk to sensitive receptors, as no sensitive receptors are located within 1,000 feet of the project site.

State regulations require all new gas stations to obtain an Authority to Construct (A/C) and a Permit to Operate (P/O) from the local air district. BAAQMD regulates gas stations through Regulation 8, Rule 7 Gasoline Dispensing Facilities which requires implementation, maintenance and testing of the Best Available Control Technology (BACT) to minimize TAC emissions and resulting public health risks from the facility. Gas station BACT designs are regulated and certified by CARB and consist of vapor recovery systems to collect gasoline

vapors that would otherwise escape into the atmosphere. CARB regulations establish standards for the level of emissions control vapor recovery systems must achieve during the transfer and storage of gasoline. The project applicant will need to apply for BAAQMD permits to construct and operate the gas station, including complying with BAAQMD air testing requirements and permit conditions required to reduce emissions. Therefore, given the distance to receptors and compliance with BAAQMD regulations, any impacts from gas station emissions would be less than significant.

Carbon Monoxide Hot Spots

The primary mobile-source criteria pollutant of local concern is carbon monoxide. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Transport of this criteria pollutant is extremely limited; CO disperses rapidly with distance from the source under normal meteorological conditions. Under certain meteorological conditions, however, CO concentrations close to congested intersections may reach unhealthy levels, affecting nearby sensitive receptors. Areas of high CO concentrations, or "hot spots," are typically intersections projected to operate at unacceptable levels of service during the peak commute hours.[1]

Based on BAAQMD guidance, projects that meet the following screening criteria would have CO impacts that would be less than significant:

1. The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plans, and local congestion management agency plans.
2. The project traffic would not increase traffic volumes at project-affected intersections to more than 44,000 vehicles per hour.
3. The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

The project is consistent with the Alameda Congestion Management Program and the City of Livermore General Plan Circulation Element. Consistency is analyzed in Section 4.17 Transportation.

The busiest intersection potentially affected by the project is the intersection of Northfront Road and Greenville Road. According to the project transportation impact analysis (**Appendix F**; Aliquot Associates 2018), future traffic volumes at the intersection would be 1,540 vehicles per hour, substantially less than the screening criterion of 44,000 vehicles per hour. Therefore, the impact of potential carbon monoxide hotspots would be less than significant.

d) Less Than Significant Impact.

Construction-Related Odors

The BAAQMD does not have a recommended odor threshold for construction activities. Heavy-duty construction equipment would emit odors; however, construction would be short term and equipment exhaust odors, which are common in an urban environment, would dissipate quickly. For these reasons, construction would not create odors that would

[1] Level of service (LOS) is a measure used by traffic engineers to determine the effectiveness of transportation infrastructure. LOS is most commonly used to analyze intersections by categorizing traffic flow with corresponding safe driving conditions. LOS A is considered the most efficient level of service and LOS F the least efficient.

adversely affect a substantial number of people and this impact would be less than significant.

Operational Odors

Operation of the proposed project would include a gas station, car wash, fast-food drive-through, convenience store, and retail store. The project would not include any of the land uses identified by the BAAQMD as potentially substantial odor sources. Therefore, the project would not create odors that would adversely affect a substantial number of people. This impact would be less than significant.

Mitigation Measures

None required.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.4 BIOLOGICAL RESOURCES. 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 Wildlife or US 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, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.), through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

SETTING

The project site is flat, covered with grass and weeds, and surrounded by the following roadways: Northfront Road to the north and west, I-580 to the south, and the westbound on-ramp to I-580 from Northfront Road on the east. A biological resources assessment was prepared to evaluate the impacts of the project on biological resources (LSA 2018). The assessment consisted of a query of available data and literature from local, state, federal, and nongovernmental agencies to obtain observation records for special-status plants and animals that occur in the area. A field survey was conducted in September 2016 to evaluate the site's potential to support special-status species, as well as sensitive habitats. A follow-up survey was conducted in February 2018 to determine if habitat conditions had changed. The following summarizes the results of the biological resources assessment.

Vegetation Communities and Land Cover Types

Vegetation on the 2.52-acre site consists of a mix of nonnative annual weeds and grasses best described as an annual grassland/ruderal community. The site shows signs of occasional disturbance by disking and there are two barren dirt turnout areas located along Northfront Road. A chain-link fence separates the southern edge of the property from the adjacent freeway.

The annual grassland/ruderal community on the site is dominated by nonnative annual species such as oats (*Avena* sp.), brome grasses (*Bromus hordaceous* and *B. diandrus*), and weeds including mustards (*Brassica nigra*, *B. rapa*, and *Herschfeldia incana*), prickly lettuce (*Lactuca serriola*), and Italian thistle (*Carduus pycnocephalus*). A few late-blooming species, including stinkweed (*Dittrichia gravnolens*), gum plant (*Grindelia* sp.), and three-rayed tarplant (*Deinandra lobbii*), were also observed.

Surface Water Features

No drainages are located on the property and water runoff occurs as sheet flow. A small (approximately 10 feet by 10 feet), low spot located near the center of the site was covered by a shallow layer of gravel. This feature could pool shallow amounts of water (1-2 inches) during and immediately after a heavy rainfall but appears unlikely to remain more than 24 hours; no plants indicative of hydric conditions were observed.

No habitat features subject to the jurisdiction of the Army Corps of Engineers or Regional Water Quality Control Board were observed on the project site. The topographic low area observed near the center of the site does not support conditions meeting the definition of a wetland.

Special-Status Species

Plants

Based on a review of California Natural Diversity Database (CNDDB) records and California Native Plant Society's on-line inventory of rare and endangered plants, the grassland communities in the area have the potential to support 19 special-status plant species. However, all these species require specific microhabitat components that are not present within or adjacent to the project site (e.g., alkaline or clay soils, vernal pools). No special-status plants were observed during the site visits.

Wildlife

Based on CNDDB records, 11 special-status wildlife species have been observed in the project area. However, site visits determined that conditions on the property are only marginally suitable for two of these species: California tiger salamander and western burrowing owl.

Western burrowing owls live in underground burrows within grassland habitats and are tolerant of human activity. No burrows suitable for use by burrowing owl were observed on the property during the site visits and no evidence of burrowing owl activity (owl pellets or feathers) was detected at the time of the site survey. However, burrowing owls are present in the Livermore Valley, so there is the potential could occur on the site.

California tiger salamander live in rodent burrows within grassland habitats, breeding in nearby seasonal pools/ponds. Adult California tiger salamander have been documented to occur 1.3 miles away from their breeding habitat. The closest documented breeding habitats to the project site are Frick Lake and a seasonal pond, both located approximately 0.75 mile from the site. Adult tiger salamander has been observed in upland habitats in the vicinity of the site, but the closest documented location is approximately 0.40 mile to the north. The small size and fossorial behavior of this species would allow it to reside on the project site during the nonbreeding season. Although the site is surrounded by roads, making access difficult, adult salamanders could inhabit the site.

Critical Habitat

A search of the USFWS Critical Habitat Portal revealed that the site does not contain identified critical habitat for any federally listed species. The nearest area designated as critical habitat is located approximately 80 feet north of the site. However, this critical habitat, designated for vernal pool fairy shrimp, is on the other side of Northfront Road.

East Alameda County Conservation Strategy

The project site is in an area covered by the East Alameda County Conservation Strategy (EACCS), a guidance document for regional conservation and environmental permitting for private and public development projects. The EACCS conserves a wide range of natural resources, including 19 listed and unlisted species called focal species. Under the EACCS, all focal species are protected as if they are currently listed as endangered or threatened under the Endangered Species Act. The project site is in Conservation Zone 4 (CZ-4), which encompasses 9,409 acres. Conservation priorities in CZ-4 include:

- Protection and management of alkali meadow and scald, valley sink scrub, seasonal wetland, and perennial freshwater marsh in the Springtown Alkali Sink and surrounding watershed.
- Protection of the palmate-bracted bird's beak population.
- Protection of Frick Lake and surrounding uplands for California tiger salamander.
- Protection within vernal pool species recovery units.
- Protection of vernal pool and longhorn fairy shrimp habitat.
- Protection of designated critical habitat for vernal pool and longhorn fairy shrimp habitat.
- Surveys for vernal pool and longhorn fairy shrimp and protection of documented occurrences.
- Protection of known occurrences of San Joaquin spearscale and surveys of other potential habitat.
- Protection of known occurrences of Congdon's tarplant and surveys of other potential habitat.
- Protection of designated critical habitat for California red-legged frog.
- Protection and restoration of Cayetano Creek, Arroyo Los Positas, and Altamont Creek.
- Protection of suitable habitat for Alameda whipsnake.
- Protection and enhancement of linkages across I-580 Vasco Road for San Joaquin kit fox and American badger, including protection of lands on both sides of the roadways.

Although there are numerous species listed for CZ-4, only California tiger salamander has the potential to occur on-site, as noted above.

DISCUSSION OF IMPACTS

a) ***Less Than Significant Impact with Mitigation Incorporated.*** The proposed project would remove 2.52 acres of nonnative/ruderal grasslands suitable as marginal quality California tiger salamander upland habitat. The grasslands also provide marginal quality habitat for western burrowing owl. The grading and excavation required for construction could kill or harm either of these species occurring on or passing through the project site, resulting in a significant impact. In addition, construction could potentially disrupt other active ground-nesting birds if present during construction. Nest abandonment or destruction would also be a significant impact.

To reduce potential impacts on protected species, the project would be required to implement mitigation measures **MM BIO-1**, **MM BIO-2**, **MM BIO-3**, **MM BIO-4** and **MM BIO-5**. Mitigation measure **MM BIO-1** would provide protection for amphibians such as the California tiger salamander, by requiring a preconstruction survey and other measures, if needed. Mitigation measure **MM BIO-2** provides protection for migratory birds, which could nest on or near the site during the breeding season. Mitigation measures **MM BIO-3** and **MM BIO-4** provide protection for burrowing owls during the breeding and nonbreeding seasons, and mitigation measure **MM BIO-5** requires implementation of avoidance and minimization measures as outlined in the EACCS to reduce impacts on all focal species. With these mitigation measures, any impacts on special-status species would be less than significant.

b) ***No Impact.*** There are no riparian habitats or sensitive natural communities located on the project site. As such, the project would have no impact.

c) ***No Impact.*** There are no state or federally protected wetlands or other waters located on the project site. The project would have no impact.

d) ***Less Than Significant Impact.*** Wildlife corridors refer to established migration routes used by resident and migratory species for passage from one area to another. Movement corridors may provide favorable locations for wildlife to travel between different habitat areas, such as foraging sites, breeding sites, cover areas, and preferred summer and winter range locations. They may also function as dispersal corridors allowing animals to move between various locations within their range.

The project site abuts I-580 and is surrounded by roadways. The volume of existing traffic, along with the absence of any trees or other cover on the site, would limit the use of the site by wildlife for movement between habitat areas or as a migration corridor. Therefore, the project would not substantially interfere with the movement of any native resident or migratory wildlife species, nor would it impede the use of native wildlife nursery sites. Impacts would be less than significant.

e) ***No Impact***. The City of Livermore Municipal Code Chapter 12.20, Article II (Livermore Tree Preservation Ordinance) establishes the policies, regulations, and standards for the protection of trees on any parcel of land within the city. The project site has no trees and there would be no impact.

f) ***Less Than Significant Impact***. The site is in CZ-4 of the EACCS and is in an area identified by the EACCS as largely urbanized. Project impacts and mitigation measures were evaluated considering recommendations in the EACCS; however, as discussed under item a) above, the project site is disturbed and contains only marginal habitat. Therefore, the project would not conflict with the provisions of the recommendations in the EACCS, and impacts would be less than significant.

Mitigation Measures

MM BIO-1 **California Tiger Salamander.** As defined in the East Alameda Conservation Strategy (EACCS), the project applicant shall conduct the following measures to avoid impacts on California tiger salamander (CTS) using the site for upland habitat:

- A qualified biologist approved by the US Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) will conduct a preconstruction survey for CTS within 48 hours prior to the initiation of any construction activities (i.e., staging, grubbing, clearing, grading) and be present for all initial ground-disturbing activities. All ruts and holes near root structures and burrows shall be inspected prior to and during excavation or removal.
- Contractors performing construction activities shall receive worker environmental awareness program (WEAP) training, which shall include review of environmental laws and avoidance and mitigation measures (AMM) that must be followed by all personnel to reduce or avoid effects on CTS during construction activities.

- To prevent inadvertent entrapment of CTS during construction, all open holes, sumps and trenches within the project site shall be inspected by the biological monitor at the beginning of each day. In addition, all trenches, holes, sumps and other excavations with sidewalls deeper than 1:1 (45-degree angle) slope and greater than 6 inches deep shall be covered each night or have an escape ramp of earth or non-slip material. Pipes, culverts and similar materials shall be stored so as to prevent wildlife species from using these as temporary refuges. These materials shall be inspected each morning for the presence of animals prior to being moved. Any listed species trapped within a trench, hole, etc. is considered "take." If any of these species are observed on the site, then the applicant shall cease work and consult with the USFWS and/or CDFW to determine appropriate mitigation and to obtain any necessary permits (e.g.; Incidental Take Permit).
- If necessary, a qualified biologist possessing a valid Endangered Species Act Section 10(a)(1)(A) permit or approved under an active Biological Opinion, will be contracted to trap and move CTS to nearby suitable habitat if found inside the fenced area.
- Work shall be avoided within CTS habitat from October 15 (or the first measurable fall rain of 1 inch or greater) to May 1.
- If an unlisted species is detected, it may be moved to a safe location.
- No monofilament plastic will be used for erosion control.
- Prior to issuance of grading permit, the applicant will submit to the City:

    1. Written USFWS and CDFW approval of the qualified biologist.
    2. Biologist's scope of work, which will include the following:
        a. Plan and schedule for pre-construction surveys and construction monitoring.
        b. Plan and approach for minimizing impacts on CTS as described in MM BIO-1
        c. Plan to provide the pre-construction and tailboard worker trainings described in MM BIO-1.

- Prior to the start of ground-disturbing activities, the applicant will submit to the City the biologist's written report summarizing the results of the pre-construction survey.

MM BIO-2 Nesting Birds

For project construction-related activities taking place during the nesting season (February 1 through August 31), the applicant shall hire a qualified biologist to conduct preconstruction surveys for nesting passerine birds and raptors (birds of prey) within the project site and for the large trees that may be near the site. These surveys shall be conducted no more than 14 days prior to the commencement of the tree removal or site grading activities. If any bird listed under the Migratory Bird Treaty Act or California Fish and Game Code is found to be nesting within the project site or within the area of influence, an adequate

protective buffer zone shall be established by a qualified biologist to protect the nesting site. This buffer shall be a minimum of 50 feet from the project activities for passerine birds, and a minimum of 250 feet for raptors and federally-/state-listed species. The distance of the buffer shall be determined by a qualified biologist based on the specific conditions (topography, if the nest is in a line of sight of the construction and the sensitivity of the birds nesting). The nest site(s) shall be monitored by a qualified competent biologist periodically to see if the birds are stressed by the construction activities and if the protective buffer needs to be increased. Once the young have fledged and are flying well enough to avoid project construction zones (typically by August), the project can proceed without further regard to the nest site(s).

MM BIO-3 **Burrowing Owl – Breeding Season.** The project applicant shall conduct the following measures to avoid impacts on burrowing owl during the breeding season (February 1 through August 31):

- A qualified biologist shall conduct a preconstruction survey for burrowing owl in accordance with the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012) no more than 14 days prior to the initiation of construction-related ground disturbance activity (i.e., staging, clearing, grading) if this activity occurs during the breeding season (February 1 through August 31). A final survey shall be conducted within 24 hours prior to any ground-disturbing activities.
- If owls are discovered after February 1, the owls must be left on-site and a 250-foot buffer established until September 1.
- If a burrowing owl is found on the site and no nesting has begun, the qualified biologist shall consult with CDFW to negotiate nest exclusion doors or avoidance buffers.
- The results of the survey and on-site monitoring shall be reported to the City.

MM BIO-4 **Burrowing Owl – Non-breeding Season.** The project applicant shall conduct the following measures to minimize impacts on burrowing owl during the nonbreeding season (September 1 through January 31):

- A qualified biologist shall determine if burrowing owls are present at the site during the nonbreeding season. If a burrowing owl is found present on the project site and no nesting has begun, the CDFW shall be consulted to negotiate nest exclusion doors or avoidance buffers. If owls are present, no disturbance shall occur within 50 meters (approximately 160 feet) of occupied burrows.
- If an effective exclusion area for burrowing owls cannot be established, an experienced burrowing owl biologist will develop a site-specific plan in consultation with CDFW to avoid impacts on owls.
- The results of the survey shall be reported to the City.

MM BIO-5 **EACCS Measures.** Based on the East Alameda County Conservation Strategy (EACCS), the following avoidance and minimization measures shall be implemented to address potential effects on focal species.

- Employees and contractors performing construction activities will receive environmental sensitivity training. Training will include review of environmental laws and avoidance and minimization measures (AMMs) that must be followed by all personnel to reduce or avoid effects on covered species during construction activities.
- Environmental tailboard trainings will take place on an as-needed basis in the field. The environmental tailboard trainings will include a brief review of the biology of the covered species and guidelines that must be followed by all personnel to reduce or avoid negative effects to these species during construction activities. Directors, managers, superintendents, and the crew foremen and forewomen will be responsible for ensuring that crewmembers comply with the guidelines.
- Contracts with contractors, construction management firms, and subcontractors will obligate all contractors to comply with these requirements and AMMs.
- The following will not be allowed at or near the work site for covered activities: trash dumping, firearms, open fires (such as barbecues) not required by the activity, hunting, and pets (except for safety in remote locations).
- Vehicles and equipment will be parked on pavement, existing roads, and previously disturbed areas to the extent practicable.
- Off-road vehicle travel will be minimized.
- Vehicles will not exceed a speed limit of 15 mph on unpaved roads within natural land-cover types, or during off-road travel.
- Vehicles will be washed only at approved areas. No washing of vehicles will occur at job sites.
- To discourage the introduction and establishment of invasive plant species, seed mixtures/straw used within natural vegetation will be either rice straw or weed-free straw.
- Pipes, culverts, and similar materials greater than 4 inches in diameter will be stored so as to prevent covered wildlife species from using these as temporary refuges, and these materials will be inspected each morning for the presence of animals prior to being moved.
- Plastic monofilament netting (erosion control matting) or similar material containing netting will not be used at the project. Acceptable substitutes include coconut matting or tackified hydroseeding compounds.
- Stockpiling of material will occur such that direct effects to covered species are avoided.
- Grading will be restricted to the minimum area necessary.
- Trenches will be backfilled as soon as possible. Open trenches will be searched each day prior to construction to ensure that no covered species are trapped. Earthen escape ramps will be installed at intervals prescribed by a qualified biologist.

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

The setting and impact analysis in this subsection are based on several resources, including a records search conducted at the Northwest Information Center (NWIC), map review, and field survey. See **Appendix C** for the full report.

Concepts and Terminology for Identification of Cultural Resources

Cultural resources include historical resources and archaeological resources (as defined in Public Resources Code Section 15064.5). Cultural resources are any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Generally, a resource is considered historically significant if it meets the criteria for listing in the California Register of Historical Resources (California Register) (California Code of Regulations Title 14(3) Section 15064.5(a)(3)).

SETTING

The project area is flat with a gently sloping elevation range from approximately 560-566 feet above sea level, located adjacent to Interstate 580. Geologically, the project area contains alluvium derived from sedimentary rock of San Ysidro loam which is typical in valley floors in the vicinity. The nearest surface water is Altamont Creek, approximately 0.26 miles north of the project area.

Prehistoric Background

The Paleo-Archaic-Emergent cultural sequence is commonly used to interpret the prehistoric occupation of the project area. The recalibrated sequence is divided into three broad periods: the Paleoindian period (11,550–8550 cal BC); the three-staged Archaic period, consisting of the Lower Archaic (8550–5550 cal BC), Middle Archaic (5550–550 cal BC), and Upper Archaic (550 cal BC–cal AD 1100); and the Emergent period (cal AD 1100–Historic).

The Paleo period began with the first entry of people into California. These people probably subsisted mainly on big game and minimally processed plant foods and had no trade networks. Current research, however, indicates more sedentism, plant processing, and trading than previously believed. The Archaic period is characterized by increased use of plant foods, elaboration of burial and grave goods, and increasingly complex trade networks. The Emergent

period is marked by the introduction of the bow and arrow, the ascendance of wealth-linked social status, and the elaboration and expansion of trade networks, signified in part by the appearance of clam disk bead money.

Ethnographic Context

Ethnographically, the project area is in Costanoan territory.

Costanoan

The project area was formerly the territory of the Costanoan within the Ohlone language group. The basic Ohlone social unit was the patrilineal family household. Households grouped together to form villages, and villages combined to form tribelets. There were approximately 40 Ohlone tribelets who traded goods such as obsidian, shell beads, and baskets; participated in ceremonial and religious activities together; intermarried; and maintained extensive reciprocal obligations to one another involving resource collection.

For the Ohlone, acorns served as a dietary staple. Acorns were knocked from trees with poles, leached to remove bitter tannins, and eaten as mush or bread. The Ohlone used a range of other plant resources including buckeye, California laurel, elderberries, strawberries, manzanita berries, gooseberries, toyon berries, wild grapes, wild onion, cattail, amole, wild carrots, clover, and an herb called chuchupate. The Ohlone also hunted black-tailed deer, Roosevelt elk, antelope, and marine mammals; smaller mammals such as dog, skunk, raccoon, rabbit, and squirrel; birds, including geese and ducks; and fish such as salmon, sturgeon, and mollusks.

The Ohlone lived in dome-shaped shelters thatched with ferns, tule, grass, and carrizo. The Ohlone also built small sweathouses dug into creek banks and roofed with brush, and circular dance areas enclosed by fences woven from brush or laurel branches. Basketmaking was generally done by women who crafted cooking and storage containers. Tightly woven baskets, decorated with feathers or shell, were valued exchange items.

Animal bones, teeth, beaks, and claws were used to make awls, pins, knives, and scrapers. Pelts and feathers were used to make clothing and bedding, and sinews were used for cordage and bow strings. Feathers, bone, and shells were crafted into ornaments.

By the late eighteenth century, Spanish settlers established the mission system in Northern California. Mission records indicate that the first tribelet arrived at Mission San Francisco in the fall of 1794. Following the secularization of the missions in 1834, many Ohlone worked as manual laborers on ranchos.

Historic Background

Alameda County

Early American Period and Statehood

Beginning in the eighteenth century, California was a territory of Spain, and later of Mexico. In the mid-1840s, Mexico's interest in developing and strengthening its hold on California decreased as the Mexican government became distracted by political developments in central Mexico. The native-born Spanish speakers of Alta California, known as Californios, long accustomed to governmental neglect, experienced relative peace and enjoyed minimal intrusion into their

social, political, and economic affairs. During this period, the United States aggressively sought access to the Pacific Ocean, resulting in the Mexican-American War.

Following the American victory and ratification of the Treaty of Guadalupe Hidalgo in 1848, California became a United States territory and, on September 9, 1850, formally joined the Union as the thirty-first state. Alameda County was created from portions of Santa Clara and Contra Costa counties on March 25, 1853.

Livermore

In 1855, Alphonso Ladd built a hotel near Robert Livermore's home and called the new community Laddville. In 1869, William Mendenhall, a long-time friend of Livermore, donated 20 acres located west of Laddville for a railroad depot. He surveyed the surrounding lands for a community that he called Livermore, in honor of his friend. The town of Livermore was founded in 1869 when the Central Pacific Railway reached the area. Livermore officially incorporated in 1876 with a population of 830.

Research

Records Search

Michael Baker International cultural resources staff conducted a record search at the NWIC (File No. 18-0937) on November 13, 2018. The NWIC, as part of the California Historical Resources Information System, California State University, Sonoma, an affiliate of the California Office of Historic Preservation (OHP), is the official state repository of cultural resource records and reports for Alameda County. The records search included review of the following federal and California inventories:

- California Inventory of Historic Resources
- California Points of Historical Interest
- California Historical Landmarks
- Directory of Properties in the Historic Property Data File, which includes the listings of the National Register of Historic Places, National Historic Landmarks, the California Register of Historical Resources, California Historical Landmarks, and California Points of Historical Interest.

This review found no previously identified resources in the area. Two previous studies that included portions of the project area are described below.

Bramlette, Alan, Mary Praetzeilis, Adrian Praetzeilis, Margret Purser, and David A. Fredrickson. 1990. *Archaeological and Historical Resources inventory for the Vasco Road and Utility Relocation Project, Contra Costa and Alameda Counties, California*.

> Cultural resources technical study documents the results of a records search, background research, field survey and archaeological resource identification for a project sponsored by the Contra Costa Water District. While many archaeological resources were identified during the project, none were identified within the project area or within the half-mile search radius.

Lewis, M. Kate. 2006. *Historic Property Survey Report: I-580 Eastbound HOV Lane Project: Hacienda Drive to East of Greenville Road, 04-Ala-580 KP 12.6/30.7 (PM R7.8/19.1), EA 04258-290810, Alameda County, California.*

Cultural resources technical study documents the results of an Archaeological Survey Report and Historic Resources Evaluation Report in support of a Caltrans Local Assistance project. While many built environment resources were identified during the project, none were identified within the project area or within the half-mile search radius.

Eleven previously completed cultural resources studies were identified within the half-mile search radius of the project area. None of the existing reports identified resources within the project area; refer to **Appendix C** for a list of these reports.

Historical Map Search

The map search included review of publications, maps, local historical directories, and websites for archaeological, ethnographic, historical, and environmental information about the project area and its vicinity. Historical maps do not depict any mapped features within the project area; see **Appendix C**.

Pedestrian Survey

The field survey included an archaeological and built environment survey of the project area on December 5, 2018. Archaeological survey methods consisted of pedestrian transects over open land, with an emphasis on exposed sediment. No archaeological materials, artifacts, residues, or features were observed. Field survey observations were documented with field notes and digital photographs. The pedestrian survey did not identify archaeological deposits or built environment resources within the project area.

DISCUSSION OF IMPACTS

a) ***No Impact.*** No built environment or archaeological deposits were identified within the project area (Michael Baker International 2018). Therefore, no historical resources as defined by CEQA Section 15064.5(a) are located in the project area, and the proposed project would have no impact.

b, c) ***Less Than Significant Impact with Mitigation Incorporated.*** No archaeological materials, artifacts, or features were observed on the project site (Michael Baker International 2018). However, because resources could be discovered during construction, the City would require mitigation measures **MM CUL-1** and **MM CUL-2**, which include standard, late-discovery procedures. These measures would reduce impacts to less than significant.

Mitigation Measures

MM CUL-1 **Treatment of Previously Unidentified Archaeological Deposits.** If prehistoric or historic-period archaeological deposits are discovered during construction, all work within 25 feet of the discovery will be redirected and the archaeologist will assess the situation, consult with agencies as appropriate, and make recommendations regarding the treatment of the discovery. Impacts on archaeological deposits should be avoided by project activities, but if such impacts cannot be avoided, the deposits will be evaluated for their California

Register eligibility. If the deposits are not California Register–eligible, no further protection of the finds is necessary. If the deposits are California Register–eligible, they will be protected from construction or recovered. This may include systematic recovery and analysis of archaeological deposits, recording the resource, preparing a report of findings, and accessioning recovered archaeological materials at an appropriate curation facility. Public educational outreach may also be appropriate.

MM CUL-2 **Treatment of Previously Unidentified Human Remains.** Any human remains encountered during project ground-disturbing activities will be treated in accordance with California Health and Safety Code Section 7050.5. The project applicant will inform its contractor(s) of the project area's sensitivity for human remains and verify that the following directive has been included in the appropriate contract documents:

> If human remains are encountered during project activities, the project applicant or its contractor will comply with the requirements of California Health and Safety Code Section 7050.5. There will be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the Alameda County coroner has determined the manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation or to his or her authorized representative. At the same time, an archaeologist will be contacted to assess the situation and consult with agencies as appropriate. Project personnel/construction workers will not collect or move any human remains and associated materials. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Native American most likely descendant to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods within 48 hours of being allowed access to the site.

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

DISCUSSION OF IMPACTS

a, b*) *Less Than Significant Impact. The project would not consume energy in a wasteful, inefficient, or unnecessary manner. The project would comply with the 2019 California Green Building Standards Code, also known as the CALGreen Code (CCR Title 24, Part 11), and the Building Energy Efficiency Standards. The CALGreen Code improves building design and encourages sustainable construction and operation, and includes the following measures:

- Compliance with regulations related to future installation of electric vehicle charging infrastructure;
- Reduced indoor water use through the establishment of maximum fixture water use rates;
- Outdoor landscaping must comply with the California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), or a local ordinance, whichever is more stringent, to reduce outdoor water use;
- Diversion of 65 percent of construction and demolition waste from landfills;
- Mandatory use of low-pollutant-emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board; and
- The 2019 Building Energy Efficiency Standards require high-efficiency lighting, water heating systems, and walls.

Construction of the project would require consumption of fossil fuels, including gasoline and diesel fuel for construction worker vehicle trips, delivery trucks, soil hauling, and operation of construction equipment. In addition, diesel-fueled portable generators may be needed to meet electricity demands when power from the electrical grid is not available. However, all construction equipment is regulated by CARB, which limits idling and the use of older, less fuel-efficient equipment. By complying with California law related to energy conservation and fuel efficiency, the project would minimize energy consumption. Therefore, construction would not consume energy in a manner that would be wasteful, inefficient, or unnecessary.

For site operations, electricity and natural gas would be provided by PG&E. Energy use would be typical of other commercial land uses in the area. Electricity and natural gas would be used for heating, ventilation, and air conditioning (HVAC); lighting; site equipment (e.g., gasoline pumps, car wash); and refrigeration. Because the site would be lowered through excavation, pumps would be used to lift accumulated stormwater to the site's stormwater detention basin. However, the site buildings and equipment would comply with the most recent CALGreen Code and Building Energy Efficiency Standards, ensuring that the site's energy use would not be wasteful, inefficient, or unnecessary. In addition, electricity supplied to the project by PG&E would comply with the state's Renewables Portfolio Standard, which requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy sources to 33 percent by 2020 and to 60 percent by 2030. Thus, a portion of the energy consumed during project operations would originate from renewable sources. Therefore, the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The project's impact on energy consumption and planning would be less than significant.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.7 GEOLOGY AND SOILS. Would the project:				
a) Directly or indirectly cause 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 Section 1803.5.3 of the 2019 California Building Code, creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

SETTING

Seismicity and Seismic Hazards

The project site is located in a highly seismic region of California within the influence of several fault systems. No known faults cross the project site; however, the northeastern portion of the project site lies within the boundaries of an Earthquake Fault Zone designated by the state

geologist as a "zone of required investigation" as defined by the state of California in the Alquist-Priolo Earthquake Fault Zoning Act (CGS 2009). The project site is 0.16 miles from the Greenville fault, which has an anticipated maximum magnitude of 6.9 (USGS 2003).

Liquefaction

Liquefaction occurs when loose, water-saturated sediments lose strength and fail during strong ground shaking. Liquefaction is defined as the transformation of granular material from a solid state into a liquefied state as a consequence of increased pore-water pressure.

According to the Seismic Hazard Zones map for the Altamont Quadrangle, published by the California Geological Survey (CGS), the site is not located within an area that has the potential for earthquake-induced liquefaction.

Topography and Soils

Livermore consists of two general topographic areas: the lowland area and the upland area. The project site is located in the lowland area, which is underlain by alluvium younger than two million years and consisting mainly of unconsolidated gravel, sand, silt, and clay deposits subject to redistribution by fluvial (stream) processes (City of Livermore 2004).

Elevations within the site range from approximately 566 feet above mean sea level along the northeastern end of the site to approximately 560 feet near the southwestern corner of the site. Soil on the project site is identified as San Ysidro soil (NRCS 2018). San Ysidro soils are located on fan remnants and stream terraces that have slopes of 0 to 9 percent.

DISCUSSION OF IMPACTS

a)

i. ***Less Than Significant Impact.*** Because no active faults are known to cross the project site, the risk of earthquake-induced ground rupture is remote. As shown in **Figure 4.7-1**, the northeastern portion of the project site is located in an Alquist-Priolo Earthquake Fault Zone; however, no structures are proposed in that portion of the site. Therefore, the project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death, involving rupture of a known earthquake fault. Furthermore, the City would review the project plans for compliance with the recommendations in the project geotechnical investigation and the current adopted CBC, which includes design criteria for seismic loading and other geologic hazards. While shaking impacts could be potentially damaging, their structural effects would be minimized by complying with the CBC, which includes provisions for seismic building design, such as anchoring to the foundation and structural frame design specifications. Therefore, this impact would be less than significant.

ii. ***Less Than Significant Impact.*** Earthquake-related ground shaking can be expected during the design life of project structures from earthquakes along active faults in the region. Therefore, the proposed structures must be designed to withstand anticipated ground accelerations. The state of California provides minimum standards for structural design and site development through the California Building Code (CBC) (California Code of Regulations, Title 24, Part 2). All buildings constructed in the city would be required to comply with the CBC, which incorporates design criteria for seismic loading

and other geologic hazards, design criteria for geologically induced loading that govern sizing of structural members, and calculation methods to assist in the design process. The CBC contains provisions for buildings to structurally survive an earthquake without collapsing and includes measures such as anchoring to the foundation and structural frame design. Thus, while shaking impacts would be potentially damaging, structural damage would be minimized by complying with the CBC and this impact would be less than significant.

iii. No Impact. Liquefaction occurs when loose sand and silt that is saturated with water behaves like a liquid when shaken by an earthquake. As shown in **Figure 4.7-1**, the site is not located in an area designated by the state geologist as a liquefaction zone. Therefore, the project would not directly or indirectly cause potential substantial adverse effects from liquefaction and there would be no impact.

iv. Less Than Significant Impact. The project site is relatively flat and is not located near any landslide hazard zones. This condition precludes the possibility of impacts related to landslides. Therefore, the project would not directly or indirectly cause potential substantial landslide risk and there would be no impact.

b) Less Than Significant Impact. Project construction activities, including land clearing, grading, and excavation, would disturb on-site soils, temporarily exposing them to wind and water erosion. Upon completion of construction, the site would be covered with impervious surfaces and landscaping, so there would be no permanent erosion or topsoil loss impacts.

Any construction activity affecting one acre or more is required to comply with the Construction General Permit (Water Quality No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ) implemented and enforced by the Regional Water Quality Control Board, San Francisco Bay Region. The Construction General Permit would apply to the proposed project and would require the project applicant to prepare and submit a stormwater pollution prevention plan (SWPPP). While the purpose of the SWPPP is to reduce construction effects on receiving water quality, the erosion control best management practices (BMPs) in the plan would be effective in reducing wind and water erosion potential during construction. The City would review the SWPPP prior to issuing a grading permit. Examples of construction BMPs to reduce erosion could consist of using temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils; performing clearing and earthmoving activities only during dry weather; and limiting construction access routes and stabilizing designated access points.

Additionally, the project would be required to comply with City of Livermore Municipal Code Chapter 13.45, Stormwater Management and Control Program, which establishes requirements for notification of intent and compliance with the General Construction Permit and BMPs as described above.

Compliance with City and Construction General Permit requirements would reduce the potential for substantial erosion or topsoil loss during construction. The impact would be less than significant.

c) Less Than Significant Impact. As discussed previously, a small portion of the project site is located within an Earthquake Fault Zone. This portion of the project site would be avoided and no structures would be erected in this zone. Furthermore, the City would review the project plans for compliance with the recommendations in the project geotechnical

investigation and the current adopted CBC, which includes design criteria for geologic hazards. Therefore, this impact would be less than significant.

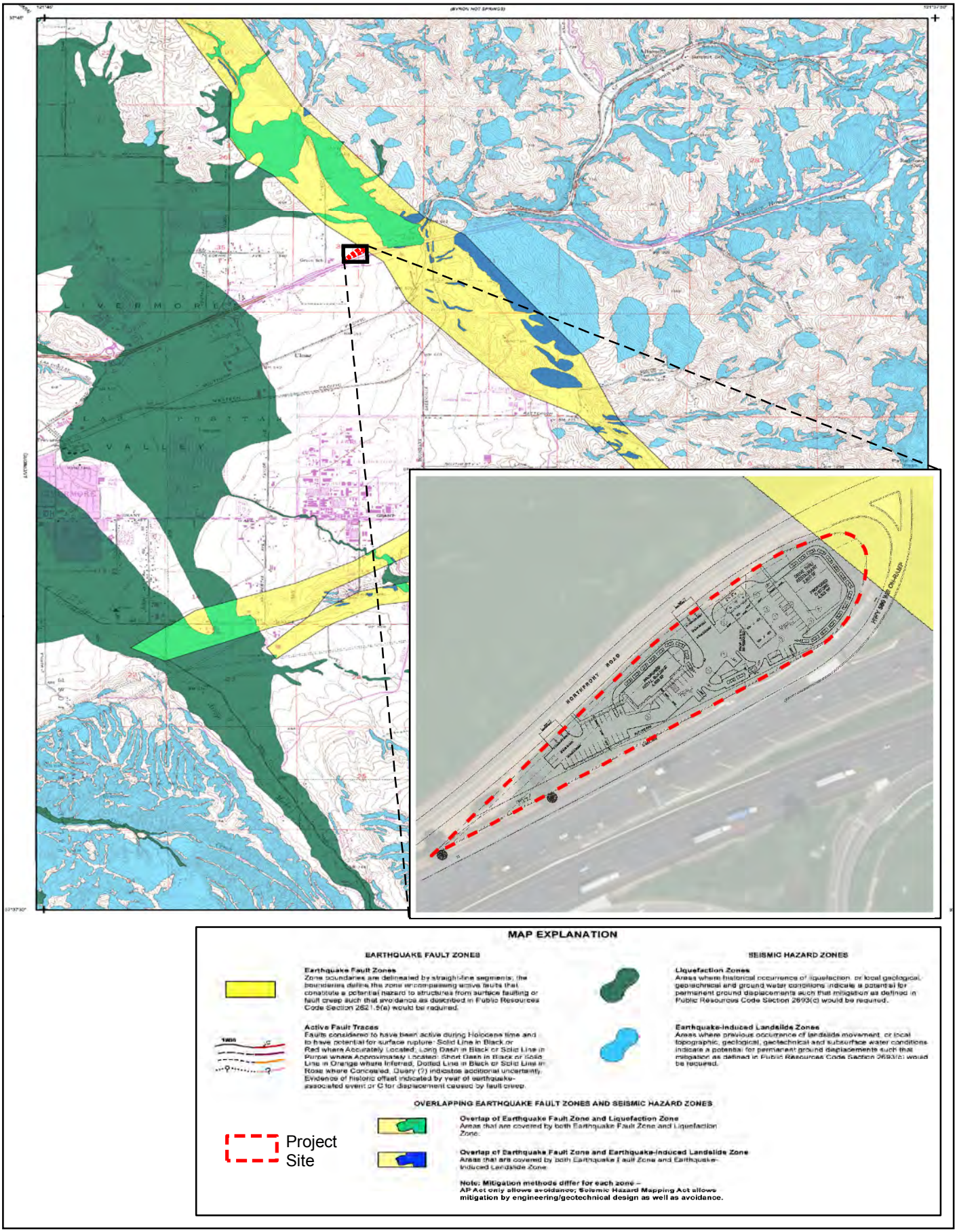
d) ***Less Than Significant Impact.*** Expansive soils are those that undergo volume changes as moisture content fluctuates, swelling substantially when wet or shrinking when dry. Soil expansion can damage structures by cracking foundations, causing settlement, and distorting structural elements. Pursuant to the CBC, any areas with low density and potentially collapsible soils, including areas of undocumented fill, would be removed and replaced with engineered fill and then compacted in place to a minimum of 90 percent relative compaction. By adhering to the standards and requirements contained in the CBC, any impacts from expansive soils would be less than significant.

e) ***No Impact.*** The project would be served by a public sewer system. Therefore, no septic tanks or alternative wastewater disposal systems would be installed for the project. The project would have no impact.

f) ***Less Than Significant Impact with Mitigation Incorporated.*** No paleontological resources were observed on the project site. However, because resources could be discovered during construction, the City would require mitigation measure **MM GEO-1**, which includes standard procedures. These measures would reduce impacts to less than significant.

Mitigation Measures

MM GEO-1 **Treatment of Previously Unidentified Paleontological Resources.** If paleontological resources are discovered during construction, all work within 25 feet of the discovery will be redirected and the paleontologist will assess the situation, consult with the City of Livermore, and make recommendations regarding the treatment of the discovery. Impacts on paleontological resources should be avoided by project activities, but if such impacts cannot be avoided, the deposits will be evaluated for their significance. If the discovery is significant, it will be protected from construction or recovered. This may include systematic recovery and analysis and curation of paleontological resources.



GREENVILLE PLAZA PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Michael Baker INTERNATIONAL

Not to Scale

Earthquake Fault Zones and Seismic Hazard

Source: California Geological Survey, Milestone Associates Imagineering

Figure 4.7-1

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	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.8 GREENHOUSE GASES. 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?	☐	☐	☒	☐

SETTING

Greenhouse gases (GHGs) are released as by-products of fossil fuel combustion, waste disposal, energy use, land use changes, and other human activities as well as many natural processes. These greenhouse gases, such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), form a layer around the earth that allows solar energy to pass through but traps heat at the surface, preventing its escape into space.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. Estimates of GHG emissions are commonly presented in carbon dioxide equivalents (CO_2e), which weighs each gas by its global warming potential (GWP). Expressing GHG emissions in CO_2e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were emitted.

The City of Livermore has adopted a Climate Action Plan (CAP) to outline strategies and activities the City and community can take to reduce GHG emissions. The Livermore CAP is a strategic planning document that identifies sources of GHG emissions in the city, presents current and future emissions estimates, identifies a GHG reduction target for future years, and presents strategic programs, policies, and projects to reduce emissions from the energy, transportation, land use, water use, and waste sectors (City of Livermore 2012). These strategies are referred to as "reduction measures" in the CAP. Implementation of the CAP is intended to support statewide efforts under the California Global Warming Solutions Act (Assembly Bill 32) to reduce GHG emissions in California to 1990 levels by 2020.

DISCUSSION OF IMPACTS

a) ***Less Than Significant Impact.*** GHG emissions contribute, on a cumulative basis, to significant adverse environmental impacts. While no single project could generate enough GHG emissions to noticeably change the global average temperature, the combination of GHG emissions from past, present, and future projects contributes substantially to global climate change and its associated environmental impacts, and, as such, are addressed only as a cumulative impact. The BAAQMD CEQA Guidelines provide three criteria for evaluating the impact of a project's operational GHG emissions (BAAQMD 2017b). An impact would not be cumulatively considerable and, therefore, less than significant if the proposed project meets one of the following criteria:

- Meet all screening criteria for the land use type listed in Table 3-1 of the BAAQMD CEQA Guidelines (BAAQMD 2017b); or

- Be located in a community with an adopted qualified GHG Reduction Strategy, and the project identifies and implements all applicable feasible measures and policies from the strategy; or

- Have estimated GHG operational emissions that are quantified and fall below the AB 32 threshold of significance of 1,100 metric tons of CO_2e per year per AB 32, adjusted to account for further reductions required under SB 32.[2] The BAAQMD has not adopted guidance or revised thresholds to account for GHG reduction targets beyond 2020. Accordingly, a threshold reduced by 4.98 percent for each year between 2020 and 2030 would meet the mandates of SB 32. The first full year of operation for the project is anticipated to be 2022. Therefore, a threshold 9.6 percent below the BAAQMD AB 32 threshold of 1,100 metric tons of CO_2e per year (or 993 metric tons per year) is used in this analysis.

The project's size exceeds the Operational GHG Screening Sizes listed in Table 3.1 of the BAAQMD CEQA Guidelines. Therefore, project emissions were quantified using CalEEMod Version 2106.3.2. The proposed project's GHG inventory includes short-term emissions from construction equipment exhaust, and long-term emissions associated with new vehicular trips and indirect source emissions, electricity usage for lighting, and electricity and natural gas use for the car wash and drive-through restaurants.

Construction GHG Emissions

The BAAQMD CEQA Guidelines do not specify a GHG emissions threshold for construction-related activities. However, results are presented here as recommended by BAAQMD. The approximate quantity of annual GHG emissions generated by construction equipment is shown in **Table 4.8-1.** The total estimated GHG emissions from construction are amortized (averaged) over the 30-year expected life span of the buildings and included in the project's estimated operational GHG emissions.

TABLE 4.8-1
CONSTRUCTION-RELATED GREENHOUSE GAS EMISSIONS

Construction Activities	CO_2e (Metric Tons per Year)
Project Construction	236.8
Amortized Construction Emissions	
Construction (236.8 metric tons per year/30 years)	**7.9**

*Source: CalEEMod version 2016.3.2. See **Appendix A** for emission model outputs.*

[2] BAAQMD thresholds were developed based on substantial evidence that such thresholds represent quantitative levels of GHG emissions, compliance with which means that the environmental impact of the GHG emissions would normally not be cumulatively considerable under CEQA (BAAQMD 2017b).

Operational Emissions

The projected annual GHG emissions resulting from project operation are summarized in **Table 4.8-2**.

TABLE 4.8-2
GREENHOUSE GAS EMISSIONS – PROJECT OPERATIONS (METRIC TONS PER YEAR)

Emissions Source	CO_2e
Construction (amortized over 30 years)	7.9
Area	< 0.1
Energy	125.9
Mobile	827.3
Mobile (drive-through and car wash idling)	1.52
Waste	23.3
Water	5.0
Total	**991**
Annual Threshold Comparison	
BAAQMD Threshold Adjusted for SB 32 (year 2022)	993
Exceed BAAQMD Threshold?	**No**

*Source: CalEEMod version 2016.3.2 and EMFAC 2017 (idling emissions). See **Appendix A** for emission model outputs.*

As shown, project-related operational GHG emissions would not exceed the BAAQMD adjusted threshold for post-2020 SB 32 reductions. Therefore, impacts would be less than significant.

b) ***Less Than Significant Impact.*** The proposed project includes annexation of land into the City of Livermore. However, this vacant land was pre-designated in the Livermore General Plan as Highway Commercial; thus, future site emissions were included in the City's GHG inventory and accounted for in the City's CAP. For this reason, the proposed project is consistent with the City's CAP.

The proposed project would not make any changes to current City standards. All development in Livermore is required to adhere to all City-adopted policy provisions, including those in the adopted CAP. The City ensures all provisions of the Livermore CAP are incorporated into projects and their permits through development review and conditions of approval. Therefore, this impact would be less than significant.

Mitigation Measures

None required.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.9 HAZARDS AND HAZARDOUS MATERIALS. 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 area or, where such a plan has not been adopted, within 2 miles of a public airport or a public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☒	☐

SETTING

Site Contamination

Two statewide databases, the State Water Resources Control Board's GeoTracker (SWRCB 2020) and the California Department of Toxic Substances Control's EnviroStor (DTSC 2020), were reviewed to determine whether any leaking underground storage tanks or hazardous waste and substance sites were located on or near the project site. No reports of active hazardous materials were found.

Airports

Livermore Municipal Airport is located approximately 6 miles southwest of the project site. The airport is owned by the City of Livermore and operates as a division of the City's Public Works Department.

Compatibility and safety concerns associated with the airport and surrounding land uses are regulated by the Alameda County Airport Land Use Commission via the Livermore Municipal Airport Land Use Compatibility Plan. The plan establishes an airport influence area (AIA), also known as the airport referral area, a planning area boundary in which current or future airport-related noise, overflight, safety, and/or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses. The AIA includes portions of the cities of Livermore, Pleasanton, and Dublin and unincorporated Alameda County, extending west to Santa Rita Road, south to Stanley Boulevard, east to North Livermore Avenue, and extending north from Tassajara Road to North Livermore Avenue (Alameda County 2012). The project site is located outside the Livermore Municipal Airport AIA.

Emergency Response

The City of Livermore's Emergency Operations Plan (2018c) is the City's foundation for disaster response and recovery operations. The plan establishes the emergency organization, specifies policies and general procedures, and provides for coordination of the responsibilities of the City of Livermore in all phases of an emergency or disaster.

According to the California Department of Forestry and Fire Protection's Hazard Severity Zone map for Alameda County, the project site is in a State Responsibility Area and in a Moderate Fire Hazard Severity Zone (Cal Fire 2008). The Livermore-Pleasanton Fire Department responds to all calls for emergency services within the Livermore city limits for fires, emergency medical incidents, public assists, traffic and vehicle accidents, and other emergency situations. The closest fire station is Fire Station #8, located at 5750 Scenic Avenue, less than 1.5 miles from the project site.

DISCUSSION OF IMPACTS

a, b) ***Less Than Significant Impact.*** Project construction would involve the use of limited amounts of common hazardous materials (e.g., gasoline, diesel fuel, oils, solvents, paints). Contractors would be required to use, store, and dispose of any hazardous materials in accordance with all applicable federal, state, and local regulations.

Project operation would include dispensing gasoline and other auto-related chemicals. The project would utilize underground storage tanks (USTs) to store gas and diesel fuel on the project site associated with the proposed gas station. California Code of Regulations Title 23, Chapter 16 specifies design, construction, and monitoring requirements for all new USTs.

The use, storage, manufacture, and transport of hazardous materials are highly regulated by the state and federal governments, as well as by the California Highway Patrol, Alameda County Department of Environmental Health, and the Livermore Pleasanton Fire Department. Compliance with local, state, and federal requirements would ensure that potential risks to public health and safety resulting from accidental hazardous substance releases would be effectively monitored and managed. This impact would be less than significant.

c) ***No Impact***. The Altamont Creek Elementary School, located approximately 0.6 miles (3,165 feet) to the northwest, is the closest school to the project site. No existing or planned elementary, middle, or intermediate, or high school is within 0.25 mile (1,320 feet) of the project site. Therefore, no impact would occur.

d) ***No Impact.*** Both GeoTracker and EnviroStor databases were reviewed for reports of hazardous materials spill/release sites on or adjacent to the project site. No hazardous material sites were identified within 1,000 feet of the project site. Therefore, no impact would occur.

e) ***No Impact.*** The project site is located approximately 6 miles from the closest airport, Livermore Municipal Airport, and is outside the AIA. Therefore, the project would not increase safety hazards or excessive noise for people residing or working in the project area, and no impact would occur.

f) ***Less Than Significant Impact.*** The project would not interfere with the implementation of the City of Livermore Emergency Operations Plan (2018c), because freeway access and exit routes would not be impeded during project construction or operation. Primary access to the project site would be provided by two new driveway entrances along Northfront Road. Therefore, impacts from the proposed project would be less than significant.

g) ***Less Than Significant Impact.*** The project site is located between urban development and vacant land covered by nonnative grasses and weeds, in an area identified by the California Department of Forestry and Fire Protection's Hazard Severity Zone map for Alameda County as a Moderate Fire Hazard Severity Zone. The project would replace the existing land cover with irrigated landscaping, paved parking areas and stucco buildings with concrete roof tiles which would be less vulnerable to fires.

A large expanse of vacant grassland is found on the north side of Northfront Road and could expose people and structures to wildfires. However, the Livermore-Pleasanton Fire Department responds to all calls including structure, wildland and other fires. The nearest fire station is 1.5 miles from the project site and would be able to provide a timely response. Therefore, impacts related to the exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires would be less than significant.

Mitigation Measures

None required.

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

The impact analysis in this subsection is based on the Preliminary Drainage and LID Calculations report prepared for the project (Vasquez 2018). (See **Appendix D**).

SETTING

Surface Water Resources and Quality

Livermore's watersheds and principal surface water resources include Arroyo Las Positas, Cayetano Creek, Arroyo del Valle, Arroyo Mocho, and Arroyo Seco. Most of these waterways flow from east to west (City of Livermore 2004). Arroyo Las Positas flows east to west a quarter mile north of the project site.

The primary sources of water pollution in and around Livermore include runoff from urban and agricultural areas. These sources contribute runoff containing petroleum hydrocarbons, metals, fertilizers, insecticides, and other chemicals to the drainage system and waterways listed above.

Groundwater

Water would be supplied to the project site by Livermore Municipal Water. The City of Livermore does not pump groundwater to meet any of its water demands. Instead, Livermore Municipal Water purchases potable water for its service area from the wholesaler Zone 7 Water Agency. Zone 7 uses a combination of water supplies and water storage facilities to meet its customers' water demands. These include imported surface water from the State Water Project, water transferred from the Byron-Bethany Irrigation District, local surface runoff captured in Del Valle Reservoir, groundwater extraction from the Livermore Valley Main Groundwater Basin, non-local groundwater storage in Semitropic Water Storage District and Cawelo Water District, and future local storage in the Chain of Lakes. In 2015, approximately 4 percent of the Zone 7 water supply came from groundwater pumped from the Livermore Valley Main Groundwater Basin (Livermore Municipal Water 2015).

The Zone 7 Water Agency maintains a groundwater management program that protects the Livermore-Amador Valley Groundwater Basin and recharges the main basin using storm runoff and imported supplies. The average groundwater elevations in Livermore have remained relatively consistent over the past decade.

Drainage

The project site is undeveloped, flat, and covered with a mix of non-native grasses. All runoff from the site drains as sheet flow to the west (Vasquez 2018).

Flooding

According to Federal Emergency Management Agency (FEMA) (2009) Flood Insurance Rate Map Community Panel Number 06001C0354G, the project site is designated Zone X, indicating that it is outside of the 0.2 percent (1 in 500) annual chance floodplain.

Portions of Livermore are located in the dam failure inundation hazard areas for Lake Del Valle Dam and Patterson Reservoir Dam. However, the project site is outside the limits of failure inundation for both dams (City of Livermore 2004).

Large underwater displacements from major earthquake fault ruptures or underwater landslides can lead to seiches or tsunamis. Seiches are waves that occur in enclosed bodies, such as lakes or bays, while tsunamis are ocean waves. The project site is approximately 23 miles east of the coast and is not near a large body of water. The project site is not in a mapped tsunami evacuation area (ABAG 2018).

DISCUSSION OF IMPACTS

a) Less Than Significant Impact.

Water Quality – Construction

Construction would disturb and expose soils to water erosion, potentially increasing the amount of silt and debris entering downstream waterways. In addition, refueling and parking of construction equipment and other vehicles on-site could result in oil, grease, and other related pollutant leaks and spills that could affect the quality of stormwater runoff. As discussed in subsection 4.7, Geology and Soils, the project applicant would be required to prepare and submit a SWPPP in compliance with the Construction General Permit. The SWPPP must include best management practices to reduce construction effects on receiving water quality. These practices could include erosion control measures and reducing or eliminating non-stormwater discharges through measures such as adequately storing materials and equipment to ensure that spills or leaks cannot enter the storm drain system. The SWPPP may include developing and implementing a spill prevention and cleanup plan and installing sediment control devices such as gravel bags, inlet filters, fiber rolls, or silt fences to reduce or eliminate sediment and other pollutants from discharging to the drainage system or receiving waters. The discharger is required to install structural controls, such as sediment control, as necessary, which would constitute best available technologies to achieve compliance with water quality standards.

The project would be required to comply with City of Livermore Municipal Code Chapter 13.45, Stormwater Management and Control Program. Per Section 13.45.090, the City Engineer and/or the Water Resources Manager may place controls on the volume and rate of stormwater runoff. Section 13.45.100 requires dischargers to comply with NPDES permits and best management practices as described above. Compliance with these requirements would ensure that construction would not result in releases of pollutants into waterways, violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality. The impact would be less than significant.

Water Quality – Operation

Project operation could contribute pollutants, such as oil, grease, and debris, to stormwater drainage flowing over the parking areas and entering the city's stormwater system. New development operational BMPs are required under the City's Municipal Stormwater Permit (NPDES Permit No. CAS0029831). Provision C.3 of the Municipal Stormwater Permit requires the control of the quality and quantity of stormwater flow from new development and redevelopment sites. Specifically, the City requires treatment and other appropriate source control and site design measures to manage increases in runoff volumes and flows. The City also requires projects to maximize stormwater infiltration (where appropriate), control runoff rates, and minimize impervious land coverage. As described above, the project would be subject to Municipal Code Chapter 13.45, which ensures compliance with the Municipal Stormwater Permit.

Compliance with NPDES requirements, including both the Construction General Permit and the City's Municipal Stormwater Permit, as well as construction and maintenance of the proposed BMPs, would ensure that stormwater runoff during project construction and operation would not violate any water quality standards or waste discharge requirements

and would not otherwise substantially degrade surface or groundwater quality. Therefore, the project would have a less than significant impact.

b) ***Less Than Significant Impact.*** As described above, water would be supplied by Livermore Municipal Water, which is the water retailer for the northwest, northeast, and eastern portions of the city. Livermore Municipal Water receives treated water from Zone 7 Water Agency; the water is then delivered to five pump stations. The pump stations move the water to four reservoirs, which provide billions of gallons of water for domestic, irrigation, and fire protection use annually. Zone 7 strives to minimize groundwater pumping while maximizing groundwater recharge by recharging the main basin and sending surplus water to the Kern County groundwater bank to recover during dry years. Most of the water Livermore Municipal Water receives from Zone 7 is stored in reservoirs; therefore, providing service to the project would not deplete groundwater supplies. Furthermore, the proposed project includes a biofiltration treatment area that would allow groundwater recharge on the site. For these reasons, the project would not substantially deplete groundwater supplies or interfere with groundwater recharge. Therefore, the project would not impede the sustainable management of basin groundwater and this impact would be less than significant.

c) ***Less Than Significant Impact.*** The proposed project site is currently undeveloped land containing no streams, rivers, or other waterways, and no impervious surfaces. The project would add impervious surfaces (e.g., rooftops, parking areas, driveways) to most of over 2 acres, which could increase runoff flow volumes and rates. However, all site runoff would be routed and pumped into a treatment basin and then into a detention basin. The project would not change overall flow patterns, as the project would drain to the west. However, because of site grading and future elevations, stormwater would be pumped into the biofiltration treatment area and detention basin and then into new storm drain infrastructure.

i. The project would not alter drainage patterns in a manner that would substantially increase erosion or siltation on- or off-site. See Item 4.10a.
ii. The project would not increase the rate or amount of surface runoff such that the project would result in on- or off-site flooding. The project's stormwater improvements would be sized such that project runoff would not result in on- or off-site flooding.
iii. The project's stormwater features would reduce the rate of runoff such that it would not exceed the capacity of downgradient drainage systems or provide substantial additional sources of polluted runoff.
iv. The project site is designated Zone X, indicating that it is outside the 100-year flood zone; thus, the project's structures would not impede or redirect flood flows.

For the reasons stated above, these impacts would be less than significant.

d) ***No Impact.*** The project site is not within a flood hazard, tsunami, or seiche zone. The project site is approximately 23 miles east of the coast and is not in the vicinity of a large body of water that could lead to a seiche. The project site is not in a mapped tsunami evacuation area (ABAG 2018). Therefore, the project site would not be subject to inundation and no impact would occur.

e) ***Less Than Significant Impact.*** The project would not conflict with or obstruct implementation of a water quality control plan (Basin Plan) or sustainable groundwater management plan. The project would not substantially decrease groundwater supply, interfere substantially with groundwater recharge, violate water quality standards or other provisions and programs established in the Basin Plan. Therefore, the project's impacts would be less than significant.

Mitigation Measures

None required.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.11 LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

SETTING

The Alameda County General Plan consists of countywide elements and three area plans: the Castro Valley Area Plan, the Eden Area Plan, and the East County Area Plan. Each area plan contains land use and circulation elements for their respective geographic areas, as well as area-specific goals, policies, and actions pertaining to open space, conservation, safety, and noise. The countywide elements include housing, conservation, open space, noise, safety, and scenic route elements. Each countywide element contains goals, policies, and actions that apply to the entire unincorporated area. The project site is located within the East County Area Plan. The East County Area Plan designates the project site land use as "Agricultural District" and the zoning as "Large Parcel Agriculture" (Alameda County Community Development Agency 2016). However, the project includes annexation of the site into the City of Livermore; as such, the City's General Plan and Zoning Code are applicable.

The City of Livermore General Plan land use designation for the project site is "Highway Commercial (HC)," with a maximum floor area ratio (FAR) of 0.3. The Highway Commercial designation is applied to commercial development near I-580 interchanges and is intended primarily to serve the traveling public. The area immediately east of the site is also designated Highway Commercial. The project site is currently unzoned; however, the project site is located within the City's Urban Growth Boundary (UGB) as identified on the City's adopted zoning map (City of Livermore 2017a). The proposed project would include both annexation of the project site into city boundaries, and pre-zoning as Highway Service Commercial (CHS).

DISCUSSION OF IMPACTS

a) ***No Impact.*** The project site is a vacant site immediately adjacent to I-580 and existing highway commercial development to the south. The project would develop the site with commercial uses intended to primarily serve the traveling public and would not create any physical barriers. Therefore, the project would not divide an established community, and no impact would occur.

b) ***Less Than Significant Impact.*** The proposed project would be consistent with General Plan land use policies that support annexation and commercial development, which is

compatible with local context and follows green building practices. Therefore, the proposed project would meet the following General Plan land use objectives and policies:

- Objective LU-1.1: Locate new development so as to create a consolidated pattern of urbanization, maximizing the use of existing public services and facilities.
    - P3. The City shall annex all lands currently under County jurisdiction and within the UGB prior to development in areas designated for urban uses.
- Objective LU-4.2: Ensure that new development complements its local context and minimizes impacts on the environment.
    - P1. New development shall be designed to respect and enhance Livermore's existing development and natural environment.
    - P2. The use of "green construction" and land development techniques shall be encouraged as a means to reduce the environmental impacts of construction activity.
    - P3. Encourage all additions and new development to follow green building practices for design, construction, and operation and to incorporate as many LEED prerequisites and credits as feasible.

The proposed project would contribute to the General Plan's stated objectives for development that complements the local context and follows green building practices. The project consists of commercial and retail components, which would be consistent with the existing Highway Commercial land use designation that provides for commercial development near I-580 interchanges. The proposed project site is not currently zoned; however, the project would include pre-zoning the parcel as Highway Service Commercial, which would be similar to nearby non-residential zoning and land uses west of the project site and south of I-580 (see **Figure 3.0-7**).

The height of the proposed buildings would pierce the Subarea 3, Subpart A, of Section C.4, I-580 Scenic Corridor Subarea 1.58-degree view angle that applies to the project site. The applicant is requesting an amendment to the Community Character Element of the General Plan for the three contiguous parcels comprising the project site to allow height projections into the 1.58-degree view angle. Although there would be an exceedance of the view angle, as shown in **Figure 4.1-6**), the project, overall, would not be so substantial as to block or substantially obscure nearby or distant views of scenic features such as ridgelines, as illustrated in **Figure 4.1-7**. See subsection 4.1, Aesthetics, for additional information.

The project requests a variance from the minimum street frontage setback required by the CHS zoning district. The CHS district requires a landscaped street frontage setback of 25 feet. The project proposes to reduce this setback to 10 feet in some places. In other places on the site, generally at the east and west ends of the site, the project would exceed the minimum requirement. The City will consider whether the project meets the criteria for approval of a variance from the setback requirement. Subject to approval of the requested variance, the project would not result in a significant environmental impact from a conflict with an applicable standard.

Therefore, the project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and the project's impacts would be less than significant.

Mitigation Measures

None required.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.12 MINERAL RESOURCES. 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?	☐	☐	☐	☒

SETTING

The California Geological Survey has mapped and classified the aggregate resources of the Livermore-Amador Valley. The project site is in an area classified as Mineral Resource Zone (MRZ)-1. Areas classified as MRZ-l are areas where adequate information indicates that no significant mineral deposits are present, or where little likelihood exists for their presence (DOC-DMG 1987). The Livermore General Plan shows six "resource sectors" in the city and surrounding area where mineral extraction is occurring or that have current land uses similar to areas where mining has occurred (City of Livermore 2004). The project site is located east of these sectors.

DISCUSSION OF IMPACTS

a, b) No Impact. The project site is located within an urbanized area, and there are no known mineral resources of value to the region or state and no locally important mineral resource recovery sites. There would be no impact.

Mitigation Measures

None required.

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

SETTING

The project site is located along the eastern periphery of the City of Livermore in eastern Alameda County. The site is bounded on the north by Northfront Road, to the south by I-580, and on the eastern edge by the westbound on-ramp to I-580 from Northfront Road. Undeveloped land borders the site to the north, east, and west.

Noise-Sensitive Receptors

Noise-sensitive land uses are land uses where noise can disrupt the purpose and function of the use. Noise-sensitive land uses generally include residential areas, hospitals, nursing homes, health care facilities, libraries, schools, and wildlife preserves. Industrial and commercial land uses are generally not considered sensitive to noise. The closest sensitive receptors to the project site are a group of single-family houses in the California Promenade neighborhood located approximately 1,325 feet (0.25 miles) to the northwest and the Altamont Creek Elementary School located approximately 3,165 feet (0.6 miles) to the northwest.

Existing Roadway Noise Levels

The site is adjacent to I-580 and existing noise levels are substantial. According to the Noise Element of the Livermore General Plan (City of Livermore 2013a), the project site and adjacent roads are all located within a 60 dBA CNEL traffic noise contour. Existing roadway noise levels were calculated for adjacent roadway segments using the Federal Highway Administration (FHWA) Highway Noise Prediction Model (FHWA-RD-77-108) and traffic volumes from the traffic impact study (Aliquot 2018). The model calculates the average noise level at specific locations based on traffic volumes, average speeds, and roadway geometry. The average vehicle noise rates (energy rates) utilized in the FHWA model were modified to reflect average vehicle noise rates

identified for California by the California Department of Transportation (Caltrans). The Caltrans data show that California automobile noise is 0.8 to 1.0 dB higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dB lower than national levels. The average daily noise levels along these roadway segments are presented in **Table 4.13-1**.

TABLE 4.13-1
EXISTING TRAFFIC NOISE LEVELS

Roadway Segment	Calculated Noise Levels (dBA)			
	CNEL @ 100 Feet from Roadway Centerline	Distance (feet) from Roadway Centerline to:		
		70 CNEL Noise Contour	65 CNEL Noise Contour	60 CNEL Noise Contour
Northfront Road				
Greenville Road to Herman Avenue	64.8*	45 feet	97 feet	209 feet
Greenville Road				
Northfront Road to Southfront Road	67.6*	69 feet	148 feet	320 feet

Source: Based on traffic data in the transportation impact study (Aliquot 2018). Traffic noise levels were calculated using the FHWA roadway noise prediction model.

Notes: dBA = A-weighted decibels; CNEL = community noise equivalent level
** = the project is located within a 60 dBA traffic noise contour, using "decibel addition" when two decibel values differ by 4 to 9 dB you add 1 dB to the higher value. Therefore, including I-580 noise would increase the CNEL @ 100 feet by 1.*

DISCUSSION OF IMPACTS

a) Less Than Significant Impact.

Short-Term (Construction) Noise Generation

Project construction would temporarily increase noise levels on the project site. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, paving). Noise generated by construction equipment, including excavators, dump trucks, and portable generators, can reach high levels. Typical noise levels associated with individual construction equipment, which are summarized in **Table 4.13-2**, can reach up to approximately 90 dBA L_{max} (FTA 2006). Operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings.

During project construction, exterior noise levels could affect the nearest existing sensitive receptors. However, the nearest sensitive receptors are all located farther than 1,000 feet from the proposed construction site and noise levels would be attenuated over this distance. Using the FHWA's Roadway Construction Noise Model, the estimated noise levels from construction were calculated at the nearest sensitive receptor (**Appendix E**). Temporary and intermittent construction noise levels would be loudest during the grading phase of construction, reaching an hourly L_{eq} of 56 dB at the nearest sensitive receptor.

TABLE 4.13-2
TYPICAL CONSTRUCTION EQUIPMENT NOISE LEVELS

Equipment	Typical Noise Level (dBA) at 50 Feet from Source	
	L_{max}	$L_{eq(hour)}$
Air Compressor	80	76
Backhoe/Front End Loader	80	76
Compactor (Ground)	80	73
Concrete Mixer Truck	85	81
Concrete Mixer (Vibratory)	80	73
Concrete Pump Truck	82	75
Concrete Saw	90	83
Crane	85	77
Dozer/Grader/Excavator/Scraper	85	81
Generator	82	79
Gradall	85	81
Jackhammer	85	78
Pavement Scarifier/Roller	85	78
Paver	85	82
Pneumatic Tools	85	82
Pumps	77	74
Truck (Dump/Flat Bed)	84	80

Source: FTA 2006

The City does not regulate noise levels for daytime construction. However, under the City's Noise Ordinance 9.36.080, construction is not permitted between the hours of 6:00 p.m. Saturday and 7:00 a.m. Monday; between 8:00 p.m. and 7:00 a.m. on Monday, Tuesday, Wednesday, and Thursday; or between 8:00 p.m. Friday and 9:00 a.m. on Saturday or on City-observed holidays. Because the proposed project would be subject to the City's Noise Ordinance, the closest sensitive receptors are located more than 1,000 feet from the project site, and construction noise would be less than the 60 dB standard and the impacts would be less than significant.

Long-Term (Operations) Noise Generation

Traffic Noise

Traffic noise levels with addition of project-generated trips were calculated using the FHWA roadway noise prediction model (FHWA-RD-77-108) at a distance of 100 feet from the near-travel-lane centerline. **Table 4.13-3** shows the calculated roadway noise level on adjacent roads based on the trips that would be generated by the project. Because of the small number of trips, the noise increase would be between 0.5 and 0.8 dB, which would not be noticeable considering the high ambient noise from I-580.

TABLE 4.13-3
EXISTING PLUS PROJECT TRAFFIC NOISE LEVELS

Roadway Segment	Calculated Noise Levels (dBA)			
	CNEL @ 100 Feet from Roadway Centerline	Distance (feet) from Roadway Centerline to:		
		70 CNEL Noise Contour	65 CNEL Noise Contour	60 CNEL Noise Contour
Northfront Road				
Greenville Road to Herman Avenue	65.7*	51 feet	111 feet	239 feet
Greenville Road				
Northfront Road to Southfront Road	68.1*	75 feet	161 feet	348 feet

Source: Based on traffic data in the transportation impact study (Aliquot 2018). Traffic noise levels were calculated using the FHWA roadway noise prediction model.

Notes: dBA = A-weighted decibels; CNEL = community noise equivalent level
** = the project is located within a 60 dBA traffic noise contour, using "decibel addition" when two decibel values differ by 4 to 9 dB you add 1 dB to the higher value. Therefore, including I-580 noise would increase the CNEL @ 100 feet by 1.*

The General Plan Noise Element, Table 9-7 (City of Livermore 2013a) specifies the following exterior noise level maximums that are considered acceptable for different land uses:

- Single-Family Residential: 60 dBA CNEL.
- Multi-Family Residential: 65 dBA CNEL.
- Commercial, Retail: 70 dBA CNEL.

As shown in **Table 4.13-3**, traffic noise levels on the segment of Northfront Road between Greenville Road and Herman Avenue could reach 65.7 dBA CNEL with the project. The nearest house to Northfront Road is a house at the corner of Northfront Road and Herman Avenue, approximately 175 feet from the roadway centerline to the west of the site. As shown in **Table 4.13.1**, the existing 60 dBA CNEL contour is 209 feet. Therefore, existing traffic noise levels exceed the acceptable standard of 60 dBA CNEL. To determine if traffic generated by the proposed project would exacerbate the traffic noise level on North Livermore Avenue, the change in dBA CNEL was compared for the existing and existing plus project conditions. The results are summarized in **Table 4.13-4**.

As shown in **Table 4.13-4**, increases in vehicular traffic would result in a maximum increase of 0.9 dB in the project area. A 3 dB increase in noise is considered a just-perceivable difference. Because the proposed project's traffic-generated noise level increase would be less than 3 dB along the roadway segments analyzed, the project's operational noise would be less than significant.

TABLE 4.13-4
PREDICTED CHANGES IN TRAFFIC NOISE LEVELS—EXISTING PLUS PROJECT CONDITIONS INCLUDING I-580 TRAFFIC NOISE

Roadway Segment	CNEL @ 100 Feet from Roadway Centerline (dBA)		Increase (dBA)	Threshold (dBA)	Impact	Existing Land Use Adjoining Segment
	Without Project	With Project				
Northfront Road						
Greenville Road to Herman Avenue	65.8	66.7	0.9	>3.0	No	Residential
Greenville Road						
Northfront Road to Southfront Road	68.6	69.1	0.5	>3.0	No	Commercial

Source: Based on traffic data in the transportation impact study (Aliquot 2018). Traffic noise levels were calculated using the FHWA roadway noise prediction model.
Notes: dBA = A-weighted decibels; CNEL = community noise equivalent level

Other Operational Noise

In addition to traffic-related noise, the project would generate other long-term operational noise, associated with the gas station, car wash, fast-food drive-through, and convenience store. Operational noise sources would come from the parking lot, building mechanical equipment, deliveries, and refuse collections. This noise would be similar to the noise generated by the other commercial developments to the south of I-580. This noise would be attenuated by the more than 1,000 feet between the project site and the nearest sensitive receptors. Furthermore, such routine operational noise would likely be indistinguishable from the existing ambient noise from I-580. For these reasons, operational noise would have a less than significant impact.

b) ***Less Than Significant Impact.*** Project construction would have the potential to result in temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Vibration generated by construction equipment spreads through the ground and diminishes in magnitude with distance. The following analysis compares potential construction vibration levels with the Caltrans (2013) recommended standard of 0.2 inches per second (in/sec) peak particle velocity (PPV) for protecting buildings from structural damage. **Table 4.13-5** lists vibration levels for typical construction equipment.

TABLE 4.13-5
TYPICAL CONSTRUCTION EQUIPMENT VIBRATION LEVELS

Equipment	Peak Particle Velocity at 25 Feet (inches/second)
Large Bulldozer	0.089
Loaded Truck	0.076
Jackhammer	0.035
Small Bulldozer/Tractor	0.003

Source: FTA 2006; Caltrans 2013

The nearest structure is a utility shed approximately 300 feet from the project site boundary. Based on the vibration levels presented in **Table 4.13-5**, ground vibration generated by heavy equipment would not exceed approximately 0.09 in/sec PPV at 25 feet. Therefore, the temporary use of construction equipment would not result in substantial groundborne vibration and this impact would be less than significant.

c) ***No Impact.*** The project site is not located within the limits of the noise contours of Livermore Municipal Airport's Noise Compatibility Zones as identified in the Airport Land Use Compatibility Plan (Alameda County 2012) or near a private airstrip. The project would have no impact.

Mitigation Measures

None required.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.14 POPULATION AND HOUSING. Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

DISCUSSION OF IMPACTS

a) ***Less Than Significant Impact.*** The proposed project would not result in a permanent increase in population because it would not include residential development. The small number of people employed would not induce substantial population growth as these positions would likely be filled by the local workforce. The proposed project is close to

existing urban development and would require only a local extension of utility infrastructure. Therefore, the project would not indirectly induce unplanned growth in other areas and any impacts on population and housing would be less than significant.

b) ***No Impact.*** The project site is vacant and there are no houses or other structures. Therefore, the project would not displace any housing or people. No impact would occur.

Mitigation Measures

None required.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.15 PUBLIC SERVICES. 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 following public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

SETTING

Fire Protection

The Livermore-Pleasanton Fire Department (LPFD) provides fire protection and emergency medical services in Livermore. The Livermore and Pleasanton Fire Departments consolidated as a joint powers authority in 1996. Each City builds and maintains its own fire stations and purchases and maintains its own light-duty vehicles and equipment. The LPFD maintains 10 stations and one training center. The training center, headquarters, and five of the stations are located in Pleasanton. The other five stations are located in Livermore. According to the most recently adopted *Livermore Community Services and Infrastructure Report* (City of Livermore 2017b), the combined department fields 10 fire companies daily with 36 on-duty firefighters, and the current LFPD response time is seven minutes (911 receipt to on-scene). Fire Station 8, at 5750 Scenic Avenue, approximately 1.2 miles west of the project site, is the nearest fire station to the site.

Police Protection

Police protection services are provided by the Livermore Police Department (LPD). The LPD operates one police station, which is located at 1110 S. Livermore Avenue, approximately 5 miles southwest of the project site. The LPD divides Livermore into five areas, or beats, and has

approximately 90 sworn officers and 45 other staff. According to the *Livermore Community Services and Infrastructure Report* (City of Livermore 2017b), the response time for a Priority 1 call (emergencies where a felony is in progress and life or property is in immediate danger) is approximately four minutes.

Parks and Recreation

Livermore has an extensive park network ranging from large regional parks covering several hundred acres to small neighborhood parks. The Livermore Area Recreation and Park District (LARPD) and the East Bay Regional Park District are responsible for developing and maintaining the non-City-owned parks and public open space in the Livermore area. The LARPD is responsible for neighborhood, community, and special use parks, including several on City-owned property. The nearest park to the site is Summit Park, located 0.75 miles west within a residential development.

In 2018, the City adopted the *Livermore Bicycle, Pedestrian and Trails Active Transportation Plan*, which identifies existing recreational trails and planned trail improvements. The California Department of Transportation (Caltrans) has defined four classes of bicycle facilities (I-IV. In addition, the Alameda County Transportation Commission (Alameda CTC) adopted sub-classifications to the County's classification systems. Section 4.17, *Transportation/Traffic* presents a complete description of these classifications and sub-classifications.

According to the *Livermore Bicycle, Pedestrian and Trails Active Transportation Plan* (2018b), there are no existing bike lanes or trails in the project area; however, the City is planning a future Class IIa bike lane along Northfront Road within the project area.

DISCUSSION OF IMPACTS

a)

Fire and Police

Less Than Significant Impact. Fire and police services would be provided by the LPFD and the LPD, respectively. The project would minimally increase demand for fire protection and police services in an existing commercial area. As a result, the project would not substantially change services ratios or the ability to provide adequate services with existing facilities. The project would not trigger the need for additional fire protection or police facilities. Future increases in demand for these services would be funded by tax revenues paid into the City's General Fund, which funds the LPFD and the LPD. Furthermore, both the LPFD and LPD have reviewed the project; no project-specific issues were identified and the project would not require construction of new facilities. Therefore, this impact would be less than significant.

Schools

No Impact. The proposed project does not include residential uses or an increase in population that would generate students. Therefore, there would be no impact regarding school facilities.

Parks and Other Public Facilities

No Impact. The proposed project does not include residential uses or an increase in population that would result in a demand for construction of parks or other public facilities. There would be no impact.

Mitigation Measures

None required.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.16 RECREATION.				
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?	☐	☐	☐	☒

SETTING

Livermore has an extensive park network ranging from large regional parks covering several hundred acres to small neighborhood parks. The Livermore Area Recreation and Park District (LARPD) and the East Bay Regional Park District are responsible for developing and maintaining the non-City-owned parks and public open space in the Livermore area. The LARPD is responsible for neighborhood, community, and special use parks, including several on City-owned property.

In 2018, the City adopted the *Livermore Bicycle, Pedestrian and Trails Active Transportation Plan*, which identifies existing recreational trails and planned trail improvements in the city. The plan addresses the areas covered by the City's General Plan and encompasses land in unincorporated Alameda County. The planning area extends beyond Livermore city limits to the north, east, and south to address planning of regional trails that connect to open space and parks, schools, job centers, and recreational opportunities.

DISCUSSION OF IMPACTS

a) ***No Impact.*** The proposed project includes development of a gas station with a car wash, a convenience store and fast-food drive-through, and a retail store, and does not include residential uses that would increase the demand for parks and recreational facilities in the area. In addition, there are no publicly accessible parks or recreation areas within or adjacent to the project site. Therefore, the project would not result in substantial physical

deterioration of any parks through a direct increase in use or indirectly during construction. No impact would occur.

b) ***No Impact.*** The proposed project does not include the construction or expansion of any recreational facilities, and there would be no impact.

Mitigation Measures

None required.

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

The impact analysis in this subsection is based on a traffic impact analysis (TIA) prepared for the applicant (Aliquot 2018) and reviewed by the City. The TIA is included as **Appendix F** of this Initial Study.

SETTING

Existing Roadway Network

Regional access to the project site is provided via I-580. I-580 is an east–west freeway with four mixed-flow lanes and two express lanes in the eastbound direction, and four mixed-flow lanes and one express lane in the westbound direction within the project vicinity. I-580 provides regional access from Marin County and the East Bay cities in Alameda County to San Joaquin County, where it merges with I-5. Access to the project area is via an interchange with Greenville Road. Local access to the site is provided on Northfront Road. Other roadways in the project area include Greenville Road, Northfront Road, Southfront Road, Laughlin Road, and Herman Avenue. These roadways are shown on **Figure 4.17-1** and are described below.

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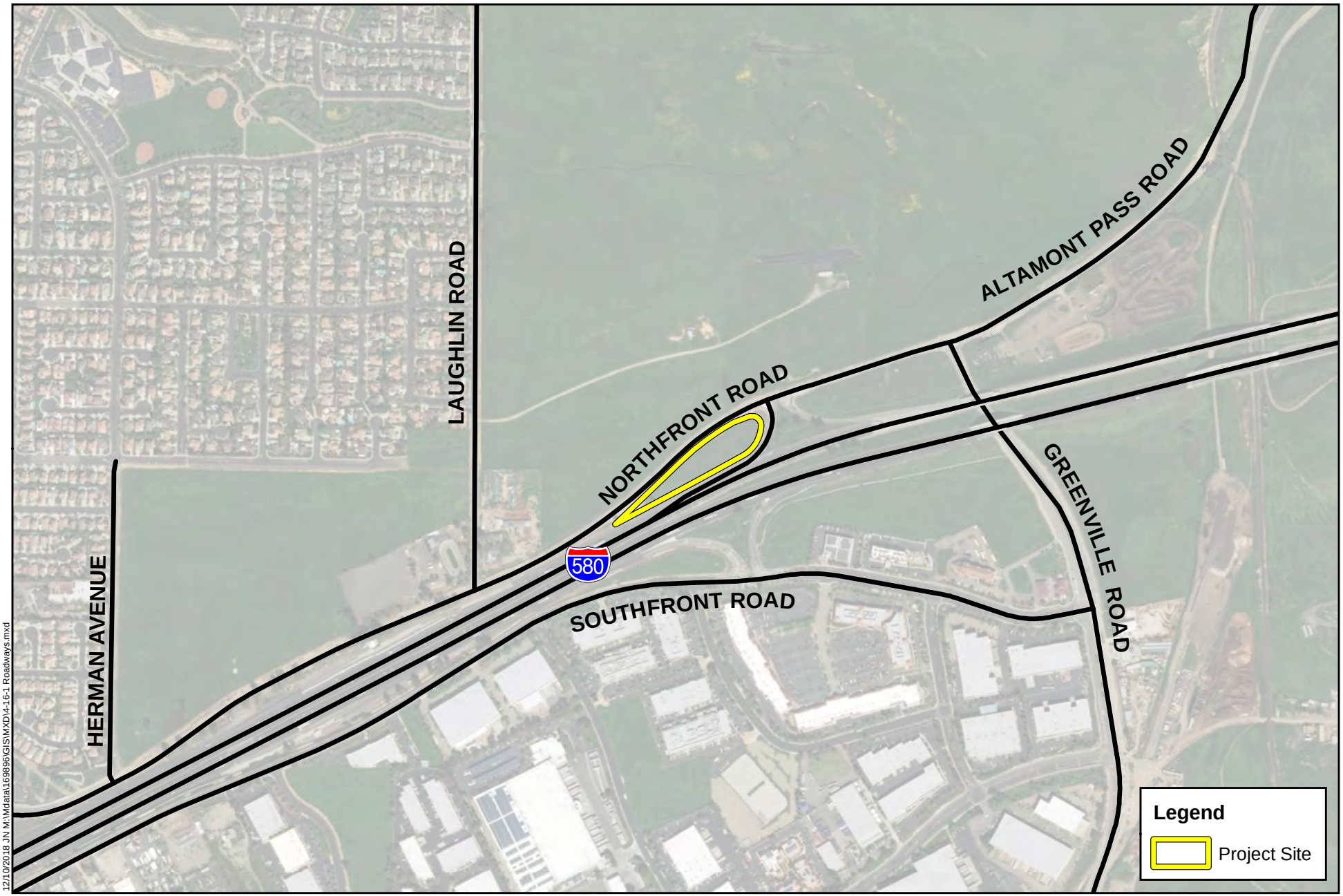

12/10/2018 JN M:\Mdata\169896\GIS\MXD\4-16-1 Roadways.mxd

Michael Baker INTERNATIONAL

0 375 750 1,500 Feet

Source: Alameda County, Aliquot Associates, ESRI Wordl Imagery

GREENVILLE PLAZA PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Roadways

Figure 4.17-1

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Altamont Pass Road[3] is primarily a two-lane, east–west winding rural roadway classified as a "collector street" in the General Plan Circulation Element. It begins at the intersection of Northfront Road and Greenville road, approximately 2,475 feet east of the city's eastern limits. From there it parallels I-580 and then continues into the Altamont hills. Northfront Road acts as a bypass for traffic diverting from the freeway during congested conditions.

Northfront Road is primarily a two- or four-lane, east–west roadway classified as a "major street" in the General Plan Circulation Element and parallels I-580 to the north. Northfront Road begins at the intersection of Altamont Pass Road and Greenville Road and continues west to just past Vasco Road, where it becomes Sunflower Court. Northfront Road is located along the project site's northern boundary and would provide direct access to the project site via two proposed driveways (see **Figure 3.0-3**).

Southfront Road is primarily a four-lane, east–west roadway classified as a "collector street" in the General Plan Circulation Element and parallels I-580 to the south. Southfront Road begins at Greenville Road and continues west, where it terminates at First Street. Southfront Road is south of the project site.

Laughlin Road is primarily a two-lane, north–south roadway classified as a "collector street" in the General Plan Circulation Element. It begins at the Northfront Road to the west of the project site and travels north through the Mill Creek community to the northerly city limits.

Herman Road is primarily a two-lane, north–south roadway classified as a "collector street" in the General Plan Circulation Element. It begins at Northfront Road and travels north through a residential neighborhood, where it becomes Garaventa Ranch Road. Herman Road is west of the project site.

Greenville Road is primarily a two-lane, north-south roadway classified as a "major street" in the General Plan Circulation Element. It begins where Northfront Road meets Altamont Pass Road at the junction with I-580 and travels south along the City's eastern limits and terminates at East Avenue.

Existing Transit Service

Existing transit service to the project area is provided by the Livermore Amador Valley Transit Authority (LAVTA). The bus stop closest to the project site is located near the intersection of Herman Road and Scenic Avenue, approximately 0.6 mile west of the site. The only LAVTA bus service line in the project area is the Local Route 15, which provides service between the Livermore Transit Center and Springtown Boulevard via North Livermore Avenue and Las Positas Road, with 30-minute headways during the week and 60-minute headways on the weekend.

Existing Pedestrian and Bicycle Facilities

The City of Livermore General Plan Circulation Element (City of Livermore 2014) provides the policy framework for regulation and development of the transportation systems in Livermore. The circulation element is intended to provide clear policies and priorities for circulation system

[3] The attached traffic impact analysis (Appendix F) refers to the frontage road access to the project site as Altamont Pass Road. Based on Alameda County assessor maps, the roadway directly adjacent to the project site is Northfront Road, and Northfront Road extends to the intersection of Greenville Road.

improvements for use by the City in preparing budgets for the Capital Improvement Program (CIP), and to determine the appropriate conditions for approval of future development proposals.

Pedestrian facilities consist of sidewalks, crosswalks, and pedestrian signals at signalized intersections. In 2018, the City adopted the *Livermore Bicycle, Pedestrian and Trails Active Transportation Plan* (ATP), which identifies existing recreational trails and planned trail improvements, including bicycle lanes in the city. Figure 3-1 in the ATP shows a map of the existing and previously proposed bikeways and trails network in the city. In the project vicinity north of I-580, there are currently no existing sidewalks or bike lanes. In the project vicinity south of I-580, there is a Class IIA bike lane on Greenville Road. A previously proposed Class IIA bike lane is also shown along Northfront Road in the project area.

DISCUSSION OF IMPACTS

a) Less Than Significant Impact With Mitigation Incorporated. The traffic evaluation included an analysis of AM and PM peak hour traffic conditions for five intersections and two roadway segments near the project site. These segments are identified below.

Intersections

1. Northfront Road and Greenville Road
2. I-580 westbound ramps and Northfront Road
3. Greenville Road and Southfront Road
4. Northfront Road and Laughlin Road
5. Northfront Road and Herman Avenue

Roadway Segments

1. Northfront Road (two-lane arterial with moderate access control) west of Greenville Road
2. Greenville Road (two-lane arterial with high access control) south of Northfront Road and Altamont Pass Road

Traffic conditions were analyzed for both the weekday AM and PM peak hours of adjacent street traffic. The AM peak hour is expected to occur between 7:00 AM and 9:00 AM, and the PM peak hour is expected to occur between 4:00 PM and 6:00 PM on a regular weekday. These periods reflect the peak commute hours.

Traffic conditions were evaluated for the following scenarios:

> **Scenario 1:** *Existing Conditions.* Existing conditions were represented by existing peak hour traffic volumes on the roadway network. Existing traffic volumes were obtained from new traffic counts conducted in March 2018.
>
> **Scenario 2:** *Existing Plus Approved/Pending Project (EPAP) Conditions*. This scenario is the result of adding approved/pending projects traffic (with a 45 percent reduction for pass-by trips) to existing conditions. Three approved/pending projects were included in this scenario: 225 Greenville Road (54,215-square-foot warehouse distribution center); 6877 Longard Road (90,500-square-foot light industrial); and Southfront at I-580 eastbound ramps (gas station with 12 fuel pumps and 4,000-square-foot fast food restaurant).

Scenario 3: *EPAP Plus Project Conditions*. This scenario is the result of adding project traffic (with a 45 percent reduction for pass-by trips) to EPAP conditions.

Scenario 4: *Year 2035 Traffic Conditions*. Using historical average daily traffic (ADT) counts (City of Livermore, 2009 to 2016) of South Vasco Road near the proposed project, an annualized growth rate for this period was estimated at 2 percent. Assuming this annual growth rate, traffic volume would increase by approximately 40 percent (equal to 2 percent compounded annual growth for 17 years) by 2035.

Traffic on the adjacent roadways is affected by pass-by trips, which are trips that would already drive by the site and are therefore already counted in the existing traffic but would divert their trip to the site. These trips are generated by other land uses and are part of existing traffic levels. The Institute of Transportation Engineers estimates a pass-by rate of at least 50 percent for gas stations. To provide a conservative analysis (higher trips), a pass-by rate of only 45 percent was applied to the trip generation estimates to determine effects on intersection LOS.

Traffic conditions were evaluated using level of service (LOS). Level of service is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays.

Signalized and unsignalized intersections were evaluated using the corresponding methodology contained in the 2010 Highway Capacity Manual (Caltrans 2010), where the average control delay for all vehicles entering the intersection was calculated and a corresponding LOS was assigned.

The City of Livermore LOS standard for signalized intersections is mid-level LOS D or better (average vehicle delay of 45 seconds or less), except within the downtown area, near freeway interchanges, or on designated major east–west streets carrying a high percentage of regional cut-through traffic. The downtown area and major east–west streets have no LOS standard, while intersections near freeway interchanges have a standard of LOS E. The only intersection located near a freeway interchange is the I-580 westbound ramp and Northfront Road. This intersection has a standard of LOS E. None of the intersections evaluated for the project are within the downtown area or on a major east–west street. Thus, all other intersections evaluated for the project are subject to the mid-level LOS D standard.

Standards of Significance

According to the City of Livermore, a development project would create a significant adverse impact on traffic conditions at a signalized intersection if for either peak hour (AM or PM), either of the following conditions occurs:

1. The level of service at the intersection degrades from an acceptable level (mid-level LOS D or better and LOS E at intersections near freeway interchanges) to an unacceptable level (LOS E or F and LOS F at intersections near freeway interchanges); or
2. The level of service at the intersection is at an unacceptable level and the addition of project trips causes the average intersection delay to increase by five or more seconds.

Project Trip Estimates

Project trip generation was estimated by applying to the size and uses of the development the appropriate trip generation rates. The project's estimated trip generation rates are shown in **Table 4.17-1**.

TABLE 4.17-1
PROJECT TRIP GENERATION

Project Component Description	Size	AM Total	AM In	AM Out	PM Total	PM In	PM Out
Fast-food drive-through window	50 seats	64	34	30	48	25	22
Coffee-donut shop with drive-through and indoor seating	600 sf	60	31	30	24	12	12
Specialty retail	4,000 sf	5	3	2	14	7	7
Convenience Store w/ Gas Pumps and Carwash	12 fueling positions	150	76	73	168	86	82
TOTAL PEAK HOUR TRIPS		278	144	135	254	130	124

*Source: Greenville Plaza at I-580 and Greenville Road Traffic Impact Analysis, July 2018, Table 1. (Included in **Appendix F**).*

Existing Conditions

The existing LOS at the intersections and roadway segments are summarized in **Table 4.17-2**. Except for Northfront Road-Greenville Road, all intersections currently operate at an acceptable LOS during both the AM and PM peak hour. Both roadway segments currently operate at an acceptable LOS.

Existing Plus Approved/Pending Projects (EPAP) Impacts

Because there are several nearby projects that have been approved or approval is pending, the traffic analysis use EPAP conditions as baseline. The results of the LOS analysis under EPAP conditions are summarized in **Table 4.17-3**. The results show that, when measured against City of Livermore standards, four intersections (all but Northfront Road-Greenville Road) would operate at an acceptable LOS during both the AM and PM peak hour under this scenario. Conditions on Greenville Road change from LOS B to C under this scenario, however, remain at an acceptable LOS. Conditions on Northfront Road remain at an acceptable LOS A under this scenario.

TABLE 4.17-2
INTERSECTION AND ROADWAY SEGMENT LOS – EXISTING CONDITIONS AM AND PM PEAK HOUR

Intersection		Control	AM Peak (secs/veh)	AM LOS	PM Peak (secs/veh)	PM LOS
Intersection						
1	Northfront Road and Greenville Road	All-way stop	84.0	F	189.6	F
2	I-580 Westbound Ramps and Northfront Road	Stop on off-ramp left turn	12.7	B	14.3	B
3	Greenville Road and Southfront Rd	Signalized	9.0	A	10.9	B
4	Northfront Road and Laughlin Rd	All-way stop	8.2	A	12.0	B
5	Northfront Road and Herman Ave[1]	Stop on Herman	12.7	B	12.9	B
Roadway Segment						
			ADT		**LOS**	
1	Northfront Road		8,300		A	
2	Greenville Road		13,300		B	

*Source: Greenville Plaza at I-580 and Greenville Road Traffic Impact Analysis, July 2018, Tables 4 and 10. (Included in **Appendix F**)*
Note: 1 = Approach delay, as opposed to worse movement.

TABLE 4.17-3
INTERSECTION AND ROADWAY SEGMENT LOS – EPAP CONDITIONS AM AND PM PEAK HOUR

Intersection		Control	AM Peak (secs/veh)	AM LOS	PM Peak (secs/veh)	PM LOS
1	Northfront Road and Greenville Road	All-way stop	101.5	F	188.9	F
2	I-580 Westbound Ramps and Northfront Road	Stop on off-ramp left turn	13.8	B	15.4	C
3	Greenville Road and Southfront Road	Signalized	9.6	A	11.6	B
4	Northfront Road and Laughlin Road	All-way stop	8.2	A	12.0	B
5	Northfront Road and Herman Ave[1]	Stop on Herman	12.7	B	12.9	B
Roadway Segment						
			ADT		**LOS**	
1	Northfront Road		9,400		A	
2	Greenville Road		14,500		C	

*Source: Greenville Plaza at I-580 and Greenville Road Traffic Impact Analysis, July 2018, Tables 5 and 10. (Included in **Appendix F**)*
Note: 1 = Approach delay, as opposed to worse movement.

Existing Plus Approved/Pending Projects (EPAP) Plus Project Impacts

The results of the LOS analysis under EPAP plus the project (adding project traffic with a 45 percent reduction for pass-by trips) are summarized in **Table 4.17-4**. The results show that, when measured against City of Livermore standards, four intersections (all but Northfront Road-Greenville Road) are expected to operate at an acceptable LOS during both the AM and PM peak hour. Both roadway segments would operate at an acceptable LOS under this scenario. Conditions at the I-580 westbound ramps and Northfront Road change from LOS B to C in the AM peak hour under this scenario, however, remain at an acceptable LOS.

The project would contribute traffic to the intersection of Northfront Road and Greenville Road, which is operating at unacceptable levels (LOS F) under both existing conditions and projected conditions (future baseline) with several approved projects added. Because the project would contribute to a traffic impact that is cumulatively considerable, the added trips from the project would be a significant impact (cumulatively considerable) and the City would require mitigation measure **MM TRA-1**. This measure would require the project applicant to contribute to the cost of adding a traffic signal and left-turn lane to the westbound Altamont Pass Road approach to its intersection with Greenville Road. With these additions, intersection performance would improve from LOS F to LOS B and the project's contribution to traffic at this intersection would be less than significant (or less than cumulatively considerable).

TABLE 4.17-4
INTERSECTION AND ROADWAY SEGMENT LOS – EPAP PLUS PROJECT CONDITIONS AM AND PM PEAK HOUR

Intersection		Control	AM Peak (secs/veh)	AM LOS	PM Peak (secs/veh)	PM LOS
1	Northfront Road and Greenville Road	All-way stop signalization	114.7 9.0	F A	190.5 11.2	F B
2	I-580 Westbound Ramps and Northfront Road	Stop on off-ramp left turn	19.2	C	22.2	C
3	Greenville Road and Southfront Road	Signalized	9.6	A	11.6	B
4	Northfront Road and Laughlin Road	All-way stop	8.3	A	12.2	B
5	Northfront Road and Herman Ave[1]	Stop on Herman	12.9	B	13.5	B
Roadway Segment						
			ADT		**LOS**	
1	Northfront Road		10,100		A	
2	Greenville Road		15,100		C	

Source: Greenville Plaza at I-580 and Greenville Road Traffic Impact Analysis, July 2018, Tables 6 and 10.

Note: 1 = Approach delay, as opposed to worse movement.

Year 2035 Impacts

The results of the LOS analysis under year 2035 conditions are summarized in **Table 4.17-5**. The roadway segment analysis shows that Northfront Road would operate at an acceptable LOS A under this scenario, and Greenville Road would operate at an unacceptable LOS E under this scenario.

For the intersection analysis, as described above, the number of trips would increase by approximately 40 percent. Except for Northfront Road-Greenville Road, all intersections are expected to operate acceptably during both the AM and PM peak hour. However, with the signalization of Northfront-Greenville Road and the addition of a left-turn lane to the westbound Altamont Pass Road approach, the intersection is expected to operate at LOS B or better. Therefore, this impact would be reduced to less than significant.

TABLE 4.17-5
INTERSECTION AND ROADWAY SEGMENT LOS – YEAR 2035 CONDITIONS AM AND PM PEAK HOUR

Intersection		Control	AM Peak (secs/veh)	AM LOS	PM Peak (secs/veh)	PM LOS
1	Northfront Road and Greenville Road With Mitigation	All-way stop signalization	260.4 14.2	F B	408.8 16.4	F B
2	I-580 Westbound Ramps and Northfront Road	Stop on off-ramp left turn	20.7	C	24.6	C
3	Greenville Road and Southfront Road	Signalized	9.9	A	12.5	B
4	Northfront Road and Laughlin Road	All-way stop	9.0	A	23.5	C
5	Northfront Road and Herman Ave[1]	Stop on Herman	12.9	B	30.3	D
Roadway Segment						
			ADT		**LOS**	
1	Northfront Road		11,600		A	
2	Greenville Road		18,600		E	

Source: Greenville Plaza at I-580 and Greenville Road Traffic Impact Analysis, July 2018, Tables 7 and 10.

Note: 1 = Approach delay, as opposed to worse movement.

b) ***Less Than Significant Impact.*** As part of the 2019 update to the CEQA Statutes and Guidelines that became effective on January 1, 2019, the guidelines for assessing transportation impacts were revised to reflect SB 743, which mandates a change in transportation impact analysis from a consideration of the project's congestion impacts to a consideration of a project's VMT impacts. In response to this anticipated change, the OPR released the Technical Advisory on Evaluating Transportation Impacts in CEQA to assist CEQA practitioners with the implementation of SB 743. The technical advisory contains the following recommendations for the transportation analysis of retail development projects (OPR 2018):

> By adding retail opportunities into the urban fabric and thereby improving retail destination proximity, local-serving retail development tends to shorten trips and reduce VMT. Thus, lead agencies generally may presume such development creates a less than significant transportation impact.

The project site is in unincorporated Alameda County. The proposed project includes a pre-zoning application for zoning to Highway Service Commercial (CHS). As explained in subsection 4.11, Land Use and Planning, the CHS designation is applied to commercial development near I-580 interchanges and is intended primarily to serve the traveling public, which would include nearby residential and commercial uses that use and/or drive past the interchange. The project size is well under 50,000 square feet of floor area, a

development size that the OPR technical advisory suggests might be considered a regional-serving use.[4] As stated above, nearly one-half of the project trips would be by-pass trips. It is reasonable, therefore, to characterize the project as local-serving retail, and that on a regional level, VMT may actually be reduced as a result of the project as customers may be traveling a shorter distance to access the proposed uses on the site than would occur without the proposed project.

c) ***Less Than Significant Impact.*** The City requires a sight distance analysis for project access points to ensure public safety. Based on the 45 mph speed limit on Northfront Road, the appropriate sight distance for the project access point driveways, both on Northfront Road, is 495 feet. The sight distance between an approaching eastbound Northfront Road driver and a driver exiting either of the two project driveways would be greater than 495 feet; thus, and any hazards for cars approaching from the east would be less than significant.

However, the distance between a car approaching from the west and the project's nearest driveway may be less than 495 feet. As such, drivers exiting this driveway would be required to turn right as indicated by signage that would be installed at the driveway exit. Exiting drivers desiring to go west on Northfront Road would be required to turn left from the westernmost driveway as indicated by signage that would be installed at the driveway exit. With these on-site design features the sight distance for cars approaching from the west would be adequate and impacts for drivers exiting the project site from either project driveway would be less than significant.

There are no existing trees or visual obstructions along the project frontage to obscure sight distance at the project driveways. Based on the results of the TIA, the project would not substantially increase hazards due to a geometric design feature with the implementation of signage at the driveway exits directing drivers as described above, and impacts would be less than significant.

d) ***Less Than Significant Impact.*** Emergency access to and from the project site would be via the full access driveways along Northfront Road. All lane widths within the project meet minimum width that can accommodate emergency vehicles. Therefore, the site would have sufficient emergency access and this impact would be less than significant.

Mitigation Measures

MM TRA-1 **Development Impact Fees.** The project applicant will pay development impact fees in accordance with City of Livermore Municipal Code Chapter 12.30, Traffic Impact Fee on Development, which would contribute to the signalization of the intersection of Northfront Road and Greenville Road and construction of a left-turn lane at the westbound Altamont Pass Road approach.

[4] The City of Livermore General Plan provides for regional-serving uses in the Community Serving General Commercial (CSGC); the project's land use designation is Highway Commercial (HC), which does not provide for regional-serving uses.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
4.18 TRIBAL CULTURAL RESOURCES. 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:				
a) 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 b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

SETTING

Assembly Bill 52 Native American Consultation

AB 52 requires the a lead agency (in this case, the City of Livermore) to begin consultation with any California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe, and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification and requests the consultation (Public Resources Code Section 21080.3.1[d]).

In compliance with AB 52 (Public Resources Code Section 21080.3.1), a project notification letter was distributed to the Ione Band of Miwok Indians. The letter was distributed on December 19, 2018; requests to consult were not received within the mandatory 30-day response period.

On January 17, 2020, the City contacted the tribe pursuant to Senate Bill 18 (Government Code Sections 65352.3 and 65352.4) because there would be an amendment to the City's General Plan associated with the proposed project. The City did not receive any requests to consult within the mandatory 90-day response period.

DISCUSSION OF IMPACTS

a, b) ***Less Than Significant Impact with Mitigation Incorporated.*** No tribal cultural resources are known in the project area; however, the City will require standard, late-discovery mitigation measures. In the event that tribal cultural resources are observed during construction, mitigation measure **MM TCR-1** would reduce impacts to less than significant.

Mitigation Measures

MM TCR-1 **Tribal Cultural Resources.** If tribal cultural resources are discovered during project construction, all work within 25 feet of the discovery will be redirected and the construction contractor will contact the City. The City will contact an archaeologist who meets the Secretary of Interior's Professional Qualification Standards for archaeology to assess the resource, consult with agencies as appropriate, and make recommendations regarding the treatment of the discovery. Impacts on tribal cultural resources should be avoided; however, if avoidance is not feasible, the resources will be evaluated for their California Register eligibility. If the tribal cultural resource is not California Register–eligible, no further protection of the find is necessary. If the tribal cultural resource is California Register–eligible, it will be protected from project-related impacts or recovered, which may include systematic recovery and analysis, recording the resource, preparation of a report of findings, and accessioning recovered archaeological materials at an appropriate curation facility.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.19 UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider that 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?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

SETTING

Wastewater

In Livermore, sewer service is provided by the City of Livermore's Public Services Department, Water Resources Division. Wastewater facilities consist of the collection system, treatment plant (Livermore Water Reclamation Plant), and disposal system. According to the Community Services and Infrastructure Report (City of Livermore 2017b), during 2016, the average dry weather flow into the Water Reclamation Plant was 5.5 million gallons per day (mgd); the plant has a rated capacity of 8.5 mgd average dry weather flow. The city's wastewater facilities have adequate capacity to accommodate anticipated growth projected in Livermore. At city buildout, the average dry weather flow at the Livermore Water Reclamation Plant is projected to be 9.47 mgd. The Water Reclamation Plant Master Plan update identifies the additional plant facilities needed to treat future flows (City of Livermore 2013b). The needed electrical upgrades and aeration tank improvements were completed between 2014 and 2017. As such, with the system expansion projects already identified in the City's Capital Improvement Program, the City has adequate capacity to accommodate the buildout scenario described in the current General Plan (City of Livermore 2017b).

Wastewater treated at the Livermore Water Reclamation Plant is either discharged to the Livermore-Amador Valley Water Management Agency (LAVWMA) pipeline for disposal or treated further to meet recycled water regulations and used for landscape irrigation or other allowed uses. Treated wastewater is conveyed to the LAVWMA disposal facility in Pleasanton, where it is combined with treated wastewater from the Dublin San Ramon Services District and is pumped 16 miles to the San Francisco Bay. The city's allocated peak wet weather capacity in the expanded LAVWMA system is 12.4 mgd (City of Livermore 2017b).

As of 2016, the city's collection system included approximately 300 miles of public sewer, 6,400 manholes and clean-outs, and just under 30,000 sewer service connections. The system also includes four lift stations, two siphons, and 3 miles of force main (City of Livermore 2017b).

Water

Water supply is provided by both Cal Water and Livermore Municipal Water. Cal Water supplies Livermore's downtown area, and the central and southern portions of the city, while Livermore Municipal Water serves the northwest, northeast, and east portions. Livermore Municipal Water operates 156 miles of water supply pipeline and serves the more recently developed parts of the city (City of Livermore 2017b).

Livermore Municipal Water does not pump groundwater to meet any of its water demands, but rather, purchases all of its potable water supply for its service area from the wholesaler Zone 7 Water Agency. Zone 7 uses a combination of water supplies and water storage facilities to meet its customers' water demands. These include imported surface water from the State Water Project, water transferred from the Byron-Bethany Irrigation District, local surface runoff captured in Del Valle Reservoir, groundwater extraction from the Livermore Valley Main Groundwater Basin, non-local groundwater storage in Semitropic Water Storage District and Cawelo Water District, and future local storage in the Chain of Lakes. In 2015, approximately 4 percent of the Zone 7 water supply came from groundwater pumped from the Livermore Valley Main Groundwater Basin (Livermore Municipal Water 2015).

Water demand for commercial uses is projected to be 425 acre-feet per year (AFY) in 2020, increasing to 471 AFY in 2035. Total retail demand in the service area is 2,050 AFY in 2020 and 2,270 AFY in 2035. According to the most recent Urban Water Management Plan (UWMP) (Livermore Municipal Water 2015), Livermore Municipal Water expects to have adequate water supplies to meet demand through 2035 in normal years, single dry years, and multiple dry years.

Storm Drainage

There is no developed storm drain system on the project site. The project site is undeveloped and flat and all stormwater runoff drains to the west. There is an existing storm drain pipe at the intersection of Northfront Road and Laughlin Road, approximately 830 feet west of the project's western boundary (Vasquez 2018).

Solid Waste

Solid waste is collected by Livermore Sanitation and transported to the Republic Services Vasco Road Landfill (4001 North Vasco Road) for disposal under a contract with the City that expires December 31, 2023. The 435-acre Vasco Road Landfill is currently permitted for disposal on 246 acres and to receive a maximum of 2,518 tons of waste per day. As of September 2017, the Vasco Road Landfill had a remaining capacity of approximately 6.8 million cubic yards and an estimated closure date of December 2022 (CalRecycle 2018). The Alameda County Waste Management

Authority is currently evaluating solid waste disposal options for after 2022, including expansion of the Vasco Road Landfill.

DISCUSSION OF IMPACTS

a-c) Less Than Significant Impact.

Water

Water would be provided to the project site by Livermore Municipal Water. As described above for sewerage, there are existing water distribution lines located at the corner of Northfront Road and Laughlin Road. Livermore Municipal Water would extend a water line to the site. According to a study conducted by the International Carwash Association, a typical automatic conveyor car wash uses approximately 30 gallons of water per vehicle (gpv) per wash, approximately 22 gpv of which are reclaimed through a reverse osmosis reclamation system. On an annual basis, the project is anticipated to represent a negligible contribution to the overall projected commercial demand of 425 AF per year in 2020 (Livermore Municipal Water 2015). The project would be required to pay development impact and utility connection fees toward ongoing improvement of the water system. The project would also be subject to Livermore Municipal Code Chapter 13.25, Water Efficient Landscape, which includes requirements for landscape design, soil care, irrigation design and scheduling, and management, using "reasonable amounts of water while ensuring that aesthetic, functional, energy, and environmental benefits of landscapes are achieved with design flexibility." This would further reduce the proposed project's water demand. Therefore, the project would not require the construction or relocation of infrastructure that would result in significant impacts and this impact would be less than significant.

Wastewater

Wastewater generated by the proposed project would be conveyed via the City's existing wastewater system to the Livermore Water Reclamation Plant. The plant currently meets all applicable water quality standards and waste discharge requirements. Flows from the project would be domestic wastewater, similar to that generated by nearby commercial developments, the sources of which would include the convenience store restroom and the carwash. As described above, there would be 22 gpv reclaimed water use through a reverse osmosis reclamation system, resulting in 8 gpv of wastewater per wash (International Carwash Association 2017). Assuming approximately 50 washes per day totaling 400 gallons per day, the estimated total wastewater generation would be 146,000 gallons annually. As such, the project would have a negligible contribution to wastewater flows treated at the plant. The project applicant would be required to pay development impact and utility connection fees toward ongoing wastewater system upgrades. The project would comply with wastewater collection and treatment requirements as outlined in Chapter 13.32 of the City's Municipal Code (Section 13.32.330).

To serve the project, the City would extend sewerage along Northfront Road from the corner of Laughlin Road, approximately 830 feet west. This would require excavating a trench, installing a sewer line, and backfilling and restoring the area. This would result in temporary air quality and traffic impacts, which would be addressed by implementing the air quality and traffic control measures outlined herein. Therefore, the project would not

require the construction or relocation of infrastructure that would result in significant impacts and this impact would be less than significant.

Storm Drainage

The proposed project site is currently undeveloped open space containing no impervious surfaces. The project would add impervious surfaces (e.g., building rooftops, parking areas, driveways), thus increasing runoff flow volumes and rates. Site drainage would be routed to a biofiltration/treatment area (see Appendix D), which would be designed and constructed according to Alameda County's established stormwater technical guidance. The basins would be sized to ensure that the overall runoff rate does not increase (see subsection 4.10, above). Therefore, new off-site stormwater drainage facilities or expansion of existing facilities would not be required. Impacts would be less than significant.

Electric Power, Natural Gas, Telecommunications

The project would connect to existing electrical, natural gas, and telecommunications networks. Therefore, the project would not require the construction or relocation of infrastructure that would result in significant impacts and this impact would be less than significant.

d, e) ***Less Than Significant Impact.*** Construction and operation of the proposed project would generate solid waste and recyclable materials. California regulations require that 50 percent of construction waste be diverted for reuse or recycling. The proposed project is not anticipated to generate a substantial amount of solid waste during construction or operation. The City would require the construction contractor to divert at least 50 percent of the solid waste generated, including soil, cardboard, wood, and other construction materials packaging. Solid waste generated by the project would require landfill disposal and would be hauled by Livermore Sanitation to the Republic Services Vasco Road Landfill for disposal. However, the project would have a negligible effect on the landfill's capacity. Because the project would comply with applicable solid waste regulations for both project construction and operation and would be served by a solid waste service provider and landfill with sufficient capacity, impacts would be less than significant.

Mitigation Measures

None required.

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

SETTING

The project site is located between urban development and vacant land covered by nonnative grasses and weeds, in an area identified by the California Department of Forestry and Fire Protection's Hazard Severity Zone map for Alameda County as a Moderate Fire Hazard Severity Zone (Cal Fire 2008). The project site is near a State Responsibility Area that covers the surrounding hills.

DISCUSSION OF IMPACTS

a) ***Less Than Significant Impact.*** The City of Livermore's Emergency Operations Plan (2018c) is the City's foundation for disaster response and recovery operations. The Livermore-Pleasanton Fire Department responds to all calls for emergency services within the Livermore city limits for fires, emergency medical incidents, public assists, traffic and vehicle accidents, and other emergency situations. The closest fire station is Fire Station #8, located at 5750 Scenic Avenue, less than 1.5 miles from the project site. The project would not impede local roadways or otherwise block access to the State Responsibility Area and this impact would be less than significant.

b) ***Less Than Significant Impact.*** The project would not, due to slope, prevailing winds, or other factors, exacerbate wildfire risks such that the project would expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Because the project occupants would have access to local roads, including I-580, to leave the area in the event of a wildfire, the project's impact would be less than significant.

c) ***No Impact.*** The project would not require the installation or maintenance of wildfire-related infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. The project would have no impact.

d) ***Less Than Significant Impact.*** The project site is not subject to flooding or landslides and thus would not expose people or structures to significant risks from flooding or landslides that may occur in areas downslope from or downstream of a wildfire. This impact would be less than significant.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.21 MANDATORY FINDINGS OF SIGNIFICANCE. Would the project:				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
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 that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

DISCUSSION OF IMPACTS

a) ***Less Than Significant Impact with Mitigation Incorporated.*** The proposed project site is flat open space with only nonnative grasses and weeds. The project is isolated by roadways

and is directly adjacent to I-580. There are few biological resources on the site and its habitat value is low; thus, the project's impacts on special-status species would be less than significant with mitigation measures **MM BIO-1** through **MM BIO-5**. There is a potential for discovery of cultural resources; however, as described in Section 3.5, Cultural Resources, the proposed project's impacts on historic, archaeological, and tribal cultural resources would be less than significant with mitigation measures **MM CUL-1**, **MM CUL-2**, and **MM TCR-1**. Because the City would require mitigation measures, including preconstruction surveys and biological and cultural resources monitoring, the proposed project would not have the potential to degrade the quality of the environment. The proposed project's overall impact on the quality of the environment would be less than significant.

b) ***Less Than Significant Impact.*** Based on the analysis presented in the IS/MND, the proposed project would not contribute incrementally to considerable environmental changes when viewed in combination with other projects in the area. Therefore, the potential cumulative environmental effects of the proposed project were determined to be less than cumulatively considerable. All identified potentially significant impacts would be mitigated to less than significant. In addition, the proposed project and other projects in the area would be subject to General Plan policies and site plan review and the City would impose conditions of approval and impact fees to address needed infrastructure improvements.

c) ***Less Than Significant Impact.*** The proposed project would not have potentially significant impacts on air quality because standardized measures would be incorporated, developed by BAAQMD that are required for all construction projects. No other direct or indirect impacts on human beings were identified that would not be addressed by existing regulations and standard best management practices. With implementation of standard air quality measures and best practices, the project's impacts would be less than significant.

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