HESPERIA COMMERCE CENTER II PROJECT

ENVIRONMENTAL IMPACT REPORT



PREPARED BY DUDEK

Draft Environmental Impact Report
Hesperia Commerce Center II Project

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AAQS	ambient air quality standards
AB	Assembly Bill
AFY	acre-feet per year
AMSL	above mean sea level
BAAQMD	Bay Area Air Quality Management District
BAP	Based Annual Productions
BMP	best management practice
BUG	backlight, up light, and glare
CAAQS	California Ambient Air Quality Standards
Cal/OSHA	California Occupational Safety and Health Administration
CalSTA	California State Transportation Agency
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CCG	Consulting Group LLC
CCR	California Code of Regulations
CDCA	California Desert Conservation Area
CDFW	California Department of Fish and Wildlife
CDNPA	California Desert Native Plants Act
CDOC	California Department of Conservation
CDWR	California Department of Water Resources
CEC	California Energy Code
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFC	California Fire Code
CH_4	methane
CIBP	Commercial and Industrial Business Park
CIWM	California Integrated Waste Management
CIWMB	California Integrated Waste Management Board
CMA	Congestion Management Agency
CMAQ	Community Multiscale Air Quality
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO_2	carbon dioxide
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CTC	California Transportation Commission

Acronym/Abbreviation	Definition
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
DIF	Development Impact Fee
DMA	Drainage Management Areas
DOF	Department of Finance
DOT	U.S. Department of Transportation
DPM	diesel particulate matter
DRC	Development Review Committee
DRECP	Desert Renewable Energy Conservation Plan
DTSC	Department of Toxic Substances Control
EDR	Environmental Data Resources Inc.
EIA	Energy Information Administration
EIR	Environmental Impact Report
EISA	Energy Independence and Security Act of 2007
EMFAC	Emissions Factor Model
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
ESCP	Erosion and Sediment Control Plan
EV	electric vehicle
EVSE	electric vehicle supply equipment
FAR	floor area ratio
FEMA	Federal Emergency Management Agency
FESA	federal Endangered Species Act
FHSZ	fire hazard severity zone
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FPA	Free Production Allowance
FRA	Federal Responsibility Area
FTA	Federal Transit Administration
GHG	greenhouse gas
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
GWP	global warming potential
HAP	hazardous air pollutant
HCP	Habitat Conservation Plan
HFC	hydrofluorocarbon
HHDT	heavy-heavy-duty truck
HIA	Health Impact Assessment
HRA	Health Risk Assessment
I	Interstate
IEPR	Integrated Energy Policy Report
IESNA	Illuminating Engineering Society of North American
IFC	International Fire Code
IPCC	Intergovernmental Panel on Climate Change
IRP	Integrated Resource Planning
IS	Initial Study

Acronym/Abbreviation	Definition
ISO	Independent Service Operator
ITE	Institute of Transportation Engineers
ITP	Incidental Take Permit
KOP	key observation point
LCFS	Low Carbon Fuel Standard
LDA	light-duty-auto vehicle
LHDT	light-heavy-duty truck
LID	low-impact development
LOS	level of service
LRA	Local Responsibility Area
LZ	lighting zone
MBTA	Migratory Bird Treaty Act
MDAB	Mojave Desert Air Basin
MDAQMD	Mojave Desert Air Quality Management District
MDPA	Mojave Desert Planning Area
MDV	medium-duty vehicle
MEIR	maximally exposed individual receptor
MGS	Mohave ground squirrel
MHDT	medium-heavy-duty truck
MM	Mitigation Measure
MMT	million metric tons
MPO	Metropolitan Planning Organization
MS4	Municipal Separate Storm Sewer System
MW	megawatt
MWELO	Model Water Efficient Landscape Ordinance
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NABA	North American Butterfly Association
NAHC	Native American Heritage Commission
NF_3	nitrogen trifluoride
NHTSA	National Highway Traffic Safety Administration
NMFS	National Marine Fisheries Service
NO	nitric oxide
NO_2	nitrogen dioxide
NOP	Notice of Preparation
NPDES	National Pollution Discharge Elimination System
NRCS	Natural Resource Conservation Service
O_2	molecular oxygen
O_3	ozone
OHV	off-highway vehicle
OHWM	ordinary high water mark
OPR	Office of Planning and Research
PCE	passenger car equivalent
PDF	project design feature
PFC	perfluorocarbon
PGM	photochemical grid model
PM_{10}	particulate matter with an aerodynamic diameter equal to or less than 10 microns

Acronym/Abbreviation	Definition
$PM_{2.5}$	particulate matter with an aerodynamic diameter equal to or less than 2.5 microns
PPV	peak particle velocity
PRC	Public Resources Code
PSD	Prevention Significant Deterioration
PSY	Production Safe Yield
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
RFS	Renewable Fuel Standard
RMS	root mean square
RPS	Renewables Portfolio Standard
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
RWWTP	Regional Wastewater Treatment Plant
SAA	Streambed Alteration Agreement
SAFE	Safer Affordable Fuel-Efficient
SANBAG	San Bernardino Associated Governments
SB	Senate Bill
SBCFD	San Bernardino County Fire Department
SBCOG	San Bernardino Council of Governments
SBCSD	San Bernardino County Sheriff's Department
SBCTA	San Bernardino County Transportation Authority
SBTAM	San Bernardino Transportation Analysis Model
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCE	Southern California Edison
SCRAM	Support Center for Regulatory Atmospheric Modeling
SCS	Sustainable Communities Strategy
SED	socioeconomic data
SF_6	sulfur hexafluoride
SGC	Strategic Growth Council
SGMA	Sustainable Groundwater Management Act
SJVAPCD	San Joaquin Valley Air Pollution Control District
SLPS	Short-Lived Climate Pollutant Strategy
SMBMI	San Manual Band of Mission Indians
SO_2	sulfur dioxide
SP	service population
SPL	Sound Pressure Level
SRA	State Responsibility Area
SWMP	Stormwater Management Program
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TAZ	traffic analysis zone
TDM	Transportation Demand Management
TDR	Transfer of Development Rights
TIA	Traffic Impact Analysis

Acronym/Abbreviation	Definition
TMDL	total maximum daily load
TPA	Transit Priority Area
UNFCCC	United Nations Framework Convention on Climate Change
USACE	United States Army Corp. of Engineers
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	underground storage tank
UTR	utility tractor
UWMP	Urban Water Management Plan
VMT	vehicle miles traveled
VOC	volatile organic compound
VVTA	Victor Valley Transit Authority
VVWRA	Victor Valley Wastewater Reclamation Authority
WDR	Waste Discharge Requirement
WQMP	Water Quality Management Plan
WSA	water supply assessment

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1 Executive Summary

1.1 Introduction

The California Environmental Quality Act (CEQA) requires that local government agencies, before taking action on projects over which they have discretionary approval authority, consider the environmental consequences of such projects. An Environmental Impact Report (EIR) is a document designed to provide to the public and to local and state governmental agency decision makers an analysis of potential environmental consequences of a project to support informed decision making.

The City of Hesperia (City) prepared this Draft EIR to provide the public and responsible agencies information about the potential adverse impacts on the local and regional environment associated with implementation of the Hesperia Commerce Center II Project (Project). This Draft EIR was prepared pursuant to CEQA, codified at California Public Resources Code Section 21000 et seq., and the CEQA Guidelines in the California Code of Regulations, Title 14, Section 15000 et seq.

CEQA requires EIRs to contain a brief summary of a project and its environmental consequences. This section provides a summary of the Draft EIR for the Project. The summary must include each significant impact with proposed mitigation measures and alternatives that would reduce or avoid that effect; areas of controversy known to the lead agency, including issues raised by agencies and the public; and, issues to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects (14 CCR 15123). In accordance with these requirements, this section provides a summary of the Project and Project impacts, lists mitigation measures and alternatives, describes areas of known controversy, and discusses issues to be resolved.

1.2 Project Location

The Project site is located in the eastern part of the City of Hesperia (City), which is located in the Victor Valley/High Desert region in western San Bernardino County. The City is bordered by the City of Victorville to the north, City of Apple Valley to the east, unincorporated San Bernardino County land to the south, and the unincorporated community of Oak Hills to the west. Locally, the Project site is located at the northwest quadrant of U.S. Highway 395 and Phelan Road/Main Street. The Project site is bound by Yucca Terrace Drive to the north, U.S. Highway 395 to the east, Phelan Road to the south, and Los Angeles Department of Water and Power Road to the west. Regional access to the Project site is provided by U.S. Highway 395 immediately adjacent to the east, and Interstate (I) 15, located approximately 1 mile east of the Project site.

1.3 Project Objectives

The primary objectives sought by the Project are as follows:

- **Objective 1:** Develop a jobs-producing and tax generating land use near transportation corridors within the housing-rich Victor Valley/High Desert region that is constructed to high standards of quality and provides diverse economic opportunities for those residing and wishing to invest within the City of Hesperia.

- **Objective 2:** Concentrate non-residential uses near existing roadways, highways, and freeways in an effort to isolate and reduce any potential environmental impacts related to truck traffic congestion, air emissions, and industrial noise to the greatest extent feasible.
- **Objective 3:** Develop a fiscally sound and employment generating land use that maximizes utilization of industrial zoned areas.
- **Objective 4:** Create a project that takes advantage of and enhances existing infrastructure, including the proximity to major regional roadways such as I-15 and U.S. Highway 395, railroad service corridors, and other similar infrastructure that will help promote the site and its use as an industrial business park development.
- **Objective 5:** Fulfill the existing and growing demand for logistics and warehouse uses in the region.

1.4 Project Description

Project Summary

The Project would include construction of three industrial/warehouse buildings with associated office spaces, surface parking, and loading areas. The northwesternmost building (also referred to as "Building 1") would be 1,567,317 square feet, the southernmost building (also referred to as "Building 2") would be 2,065,987 square feet, which would potentially be divided between two spaces within the same building, and the northeasternmost building (also referred to as "Building 3") would be 112,125 square feet, for a total of 3,745,429 square feet (Figure 3-6, Site Plan).

Office space within each building would total up to 20,000 square feet. Depending on the number of future tenants, office areas may be distributed among four individual office spaces in the southwest and southeast corners of each building, or may be concentrated within one office in each building. The office space may or may not be distributed across second-level mezzanines.

The Project would support a variety of activities associated with the three industrial/warehouse buildings, including the ingressing and egressing of passenger vehicles and trucks, the loading and unloading of trucks with designated truck courts/loading areas, and the internal and external movement of materials around the Project site via forklifts, pallet jacks, yard hostlers, and similar equipment. In addition, the office space would support general internal office activities related to the industrial/warehouse uses.

At this time, no refrigeration is being proposed as part of the Project, and the Project Applicant currently has no plans to lease to any tenant needing refrigerated space. Because an end user of the three buildings has not yet been identified, specific details regarding future operational activities on the Project site are not yet available. However, for the purposes of CEQA and to ensure full disclosure on all potential allowable uses on the Project site, this environmental impact assessment assumes development of a "blend" of industrial uses. Thus, the modeling assumptions used for the air quality, health risk assessment, greenhouse gas, energy, and traffic impact analyses summarized in subsequent chapters of this Draft EIR assume a blend of "high-cube" warehouse and general light industrial uses. Under this modeling scenario, approximately 65% of Buildings 1 and 2 (i.e., 2,361,648 square feet) would support "high-cube" warehouse uses, and 35% of Buildings 1 and 2 (i.e., 1,271,656 square feet) and 100% of Building 3 (112,125 square feet) would support general light industrial uses.

Project Construction

Construction is expected to commence in 2021 and would last through 2023. The duration of construction activity was estimated based on consultation with the Project Applicant and past project experience. The construction schedule used in the analysis, shown in Table 4.2-5 in Section 4.2, Air Quality, of this Draft EIR, represents a conservative analysis should construction occur any time after the respective dates, since emissions factors for construction decrease as the analysis year increases due to emissions regulations becoming more stringent. A detailed summary of construction, shown in Table 4.2-6 in Section 4.2, was also estimated based on consultation with the Project Applicant and previous project experience. The Project-specific construction fleet may vary due to specific Project needs at the time of construction. The duration of construction activity and associated equipment represent a reasonable approximation of the expected construction fleet as required per the CEQA Guidelines. Refer to specific detailed modeling inputs/outputs provided in the Air Quality Impact Analysis (Appendix C-1).

1.5 Summary of Impacts

Table 1-1 presents a summary of the environmental impacts that could result from the Project, mitigation measures, and the level of significance of the impact after implementation of the mitigation measures.

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Aesthetics			
Would the Project have a substantial adverse effect on a scenic vista?	Potentially significant impact	**MM-AES-1.** Project buildings and elements shall include colors and tones that mimic the natural desert environment. The Project Applicant shall present to the City of Hesperia a materials board showing the proposed building color palette for review and approval prior to issuance of the first building permit. City staff shall review the color palette to ensure that the selected colors and tones largely conform to those colors and tones already found in the surrounding natural desert landscape. The color palette, along with the Project design as a whole, shall also be reviewed to assure conformance with the development standards of the Hesperia Municipal Code and the Main Street and Freeway Corridor Specific Plan in order to promote the visual character and quality of the surrounding area.	Less-than-significant impact with mitigation incorporated
Would the Project substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No impact	No mitigation would be required.	No impact
In non-urbanized areas, would the Project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?	Potentially significant impact	**MM-AES-1**	Less-than-significant impact with mitigation incorporated

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project have a cumulative effect on aesthetic resources?	Potentially significant impact	MM-AES-1	Less-than-significant impact with mitigation incorporated
Agriculture and Forestry Resources			
Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No impact	No mitigation would be required.	No impact
Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract?	No impact	No mitigation would be required.	No impact
Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	No impact	No mitigation would be required.	No impact
Would the Project result in the loss of forest land or conversion of forest land to non-forest use?	No impact	No mitigation would be required.	No impact
Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	No impact	No mitigation would be required.	No impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the Project have a cumulative effect on agriculture and forestry resources?	No impact	No mitigation would be required.	No impact
Air Quality			
Would the Project conflict with or obstruct implementation of the applicable air quality plan?	Potentially significant impact	**MM-AQ-1.** The Project shall utilize "Super-Compliant" low VOC paints which have been reformulated to exceed the regulatory VOC limits put forth by MDAQMD's Rule 1113. Super-Compliant low VOC paints shall be no more than 10 grams per liter (g/L) of VOC. Alternatively, the Project Applicant may utilize tilt-up concrete buildings that do not require the use of architectural coatings **MM-AQ-2.** The Project shall implement the following measures in order to reduce operational air pollutant emissions to the extent feasible: • Only haul trucks meeting model year 2010 engine emission standards shall be used for the on-road transport of materials to and from the Project site. • Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum, each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than 5 minutes once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged; and 3) telephone numbers of the building facilities manager and the CARB to report violations. Prior to the issuance of an occupancy permit, the City of Hesperia shall conduct a site inspection to ensure that the signs are in place.	Significant and unavoidable impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		• Prior to tenant occupancy, the Project Applicant or successor in interest shall provide documentation to the City of Hesperia demonstrating that occupants/tenants of the Project site have been provided documentation on funding opportunities, such as the Carl Moyer Program, that provide incentives for using cleaner-than-required engines and equipment. • The minimum number of automobile electric vehicle (EV) charging stations required by the California Code of Regulations Title 24 shall be provided. In addition, the buildings shall include electrical infrastructure sufficiently-sized to accommodate the potential installation of additional auto and truck EV charging stations in the future. • Conduit shall be installed to tractor trailer parking areas in logical locations determined by the Project Applicant during construction document plan check, for the purpose of accommodating the future installation of EV truck charging stations at such time this technology becomes commercially available.	
Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?	Potentially significant impact	**MM-AQ-1**	Significant and unavoidable impact
Would the Project expose sensitive receptors to substantial pollutant concentrations?	Potentially significant impact	**MM-AQ-1**	Significant and unavoidable impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project have a cumulative effect on air quality resources?	Potentially significant impact	MM-AQ-1 MM-AQ-2	Significant and unavoidable impact
Biological Resources			
Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	Potentially significant impact	**MM-BIO-1.** Prior to the issuance of grading permits, the Project Applicant shall submit an application and applicable fee paid to the City of Hesperia for removal or relocation of protected native desert plants under Hesperia Municipal Code Chapter 16.24. The application shall include certification from a qualified Joshua tree and native desert plant expert(s) to determine that proposed removal or relocation of protected native desert plants are appropriate, supportive of a healthy environment, and in compliance with the City of Hesperia Municipal Code. If suitable space occurs on the Project site, protected plants subject to Hesperia Municipal Code Chapter 16.24 shall be relocated on site and incorporated into the on-site landscaping. As permitted by the City of Hesperia, if suitable space does not occur on the Project site to relocate each and every protected plants subject to Hesperia Municipal Code Chapter 16.24, the Project Applicant shall coordinate with the City of Hesperia to identify an appropriate off-site location for planting. The application shall include a detailed plan for removal of all protected plants on the Project site. The plan shall be prepared by a qualified Joshua tree and native desert plant expert(s). The plan shall include, but not be limited to, the following measures:	Less-than-significant impact with mitigation incorporated

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		• Salvaged plants shall be transplanted expeditiously to either their final on-site location, or to an approved off-site area. If the plants cannot be expeditiously taken to their permanent relocation area at the time of excavation, they may be transplanted in a temporary area (stockpiled) prior to being moved to their permanent relocation site(s). • Joshua trees shall be marked on their north facing side prior to excavation. Transplanted Joshua trees shall be planted in the same orientation as they currently occur on the Project site, with the marking on the north side of the trees facing north at the relocation site(s). • Transplanted plants shall be watered prior to and at the time of transplantation. The schedule of watering shall be determined by the qualified tree expert and desert native plant expert(s) to maintain plant health. Watering of the transplanted plants shall continue under the guidance of qualified tree expert and desert native plant expert(s) until it has been determined that the transplants have become established in the permanent relocation site(s) and no longer require supplemental watering. **MM-BIO-2.** Although protocol surveys and trapping on the Project site in 2020 concluded that Mohave ground squirrel (MGS) is absent from the Project site, the Off-Site Utilities Alignments—or portions thereof—may provide suitable habitat for the species. Prior to any construction work being conducted for the off-site utilities (domestic water, stormwater drain, sanitary sewer), focused surveys for MGS shall be required to determine its presence or absence and any potential	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		Project effects to this species. Focused surveys need only to occur along segments of the Off-Site Utilities Alignments that contain suitable or potentially suitable habitat for MGS, as determine by a qualified biologist. The focused MGS surveys shall be conducted either in accordance with the January 1991 California Department of Fish and Wildlife (CDFW) guidelines, as modified in January 2003, or in accordance with any modified survey methodology as approved in writing by CDFW. If the surveys conclude that MGS is not found within the Off-Site Utilities Alignments, no additional subsequent activities are required. In the event that the surveys determine that MGS is present within the areas to be either temporarily or permanently disturbed as a result of construction of the off-site utilities, the Project applicant shall be required to obtain an Incidental Take Permit (ITP) from CDFW under Section 2081 of California Fish and Game Code. The ITP process shall be coordinated with the regional CDFW office. The ITP shall include an analysis of whether Project impacts would jeopardize the continued existence of the species, provide suitable avoidance and minimization measures to reduce potential impacts, and adequate mitigation through conservation or mitigation banking. **MM-BIO-3.** One pre-construction burrowing owl clearance survey shall be completed no more than 14 days before initiation of site preparation or grading activities, and a second survey shall be completed within 24 hours of the start of site preparation or grading activities. If ground-disturbing activities are delayed or suspended for more than 30 days after the pre-construction surveys, the Project site shall be	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		resurveyed. Surveys for burrowing owl shall be conducted in accordance with protocols established in the Staff Report on Burrowing Owl Mitigation (Department of Fish and Game, March 2012) or current version. If burrowing owls are detected, disturbance to burrows shall be avoided during the nesting season (February 1 through August 31). Buffers will be established around occupied burrows in accordance with guidance provided in the Staff Report on Burrowing Owl Mitigation (Department of Fish and Game, March 2012) or current version. No Project activities shall be allowed to encroach into established buffers without the consent of a monitoring biologist. The buffer shall remain in place until it is determined that occupied burrows have been vacated or the nesting season has completed. Outside of the nesting season, passive owl relocation techniques approved by the California Department of Fish and Wildlife (CDFW) shall be implemented. Owls shall be excluded from burrows in the immediate Project area and within a buffer zone by installing one-way doors in burrow entrances. These doors will be placed at least 48 hours prior to ground-disturbing activities. Compensatory mitigation for permanent loss of owl habitat will be provided following the guidance in the Staff Report on Burrowing Owl Mitigation (Department of Fish and Game, March 2012) or current version. The Project area shall be monitored daily for one week to confirm owl departure from burrows prior to any ground-disturbing activities. Where possible, burrows will be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe shall be inserted into the tunnels	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		during excavation to maintain an escape route for any wildlife inside the burrow. MM-BIO-4. A pre-construction survey for American badger and desert kit fox shall be conducted in suitable habitat areas on the Project site and Off-Site Utilities Alignments within 10 days prior to the start of construction to determine the presence/absence of either species. If either species is discovered during the survey, an American Badger/Desert Kit Fox Mitigation and Monitoring Plan shall be developed as recommended by the California Department of Fish and Wildlife (CDFW) in their Notice of Preparation comment letter dated December 19, 2019. The Mitigation and Monitoring Plan shall include avoidance and minimization measures to reduce potential impacts to either species, as well as compensatory mitigation to offset direct or indirect impacts. The plan will be developed in consultation with CDFW. At a minimum, the plan shall: • Identify pre-construction survey methods for American badger and desert kit fox; • Describe feasible pre-construction and construction-phase avoidance methods, • Describe pre-construction and construction-phase relocation methods, including the possibility for passive relocation; • For burrows that will not be impacted by the Project, identify an appropriate construction exclusion zones for both active and natal burrows; • Coordinate survey findings prior to and during construction to meet the information needs of wildlife health officials in monitoring the health of kit fox populations.	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		MM-BIO-5. Construction activities should avoid the migratory bird nesting season (typically February 1 through August 31), to reduce any potential significant impact to birds that may be nesting on the study area. If construction activities must occur during the migratory bird nesting season, an avian nesting survey of the Project site and within 500 feet of all impact areas must be conducted to determine the presence/absence of protected migratory birds and active nests. The avian nesting survey shall be performed by a qualified wildlife biologist within 72 hours prior to the start of construction in accordance with the MBTA (16 USC 703–712) and California Fish and Game Code Sections 3503, 3503.5, and 3513. If an active bird nest is found, the nest shall be flagged and mapped on the construction plans along with an appropriate buffer established around the nest, which will be determined by the biologist based on the species' sensitivity to disturbance (typically 300 feet for passerines and 500 feet for raptors and special-status species). The nest area shall be avoided until the nest is vacated and the juveniles have fledged. The nest area shall be demarcated in the field with flagging and stakes or construction fencing. On-site construction monitoring shall also be conducted when construction occurs in close proximately to an active nest buffer. No Project activities may encroach into established buffers without the consent of a monitoring biologist. The buffer shall remain in place until is determined the nestlings have fledged and the nest is no longer considered active.	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	Potentially significant impact	MM-BIO-1	Less-than-significant impact with mitigation incorporated
Would the Project 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?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Potentially significant impact	MM-BIO-1	Less-than-significant impact with mitigation incorporated
Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project have a cumulative effect on biological resources?	Potentially significant impact	MM-BIO-1 MM-BIO-2 MM-BIO-3 MM-BIO-4 MM-BIO-5	Less-than-significant impact with mitigation incorporated

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Cultural Resources			
Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	Potentially significant impact	**MM-CUL-1.** Prior to start of ground-disturbing activities, a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (or an archaeologist working under the direct supervision of the qualified archaeologist) shall be retained by the Project Applicant and shall conduct cultural resources sensitivity training for all construction personnel. Construction personnel shall be informed of the types of archaeological resources that may be encountered, the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains, and safety precautions to be taken when working with archaeological monitors. The construction contractor shall ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance. **MM-CUL-2.** If construction of the off-site utilities requires deviation from the routes and disturbance footprints shown in the conceptual plans for these off-site utilities, and thus, results in increased potential for construction equipment and activities to come into close proximity or to traverse the locations of the potential historic resources observed in the vicinity of the off-site utilities routes, a historic resources survey shall be conducted by a qualified historic resources expert to determine the significance of these potential resources. The survey shall entail the taking of detailed notes and photographs of potential resources, including documentation of character defining features, spatial relationships, and overall existing conditions of the resources. The potential historic	Less-than-significant impact with mitigation incorporated

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		resources shall be recorded on State of California Department of Parks and Recreation Series 523 Forms (DPR forms), and will be evaluated in consideration of National Register of Historic Places and California Register of Historic Resources designation criteria and integrity requirements. Archival research, as applicable, shall also be conducted to develop the appropriate historic context for the potential historic resources. The findings of this evaluation shall be included in a historic resources report. If the resources are found to be historically significant and/or eligible for listing pursuant to National Register of Historic Places and California Register of Historic Resources designation criteria, and if avoidance of these resources and redesign of the off-site utilities is deemed infeasible, the report shall include detailed procedures to the City and Project Applicant on how to minimize effects to these resources to acceptable levels of significance, and these recommendations must be implemented by the Project Applicant. This requirement shall be noted on all grading plans, and the construction contractor shall be obligated to comply with the note.	
Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	Potentially significant impact	**MM-CUL-1** **MM-CUL-2** **MM-CUL-3.** If archaeological resources (sites, features, or artifacts) or tribal cultural resources are exposed during construction activities, all construction work occurring within 100 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find	Less-than-significant impact with mitigation incorporated

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		and determine whether or not additional study is warranted. Additionally, the San Manuel Band of Mission Indians Cultural Resources Department (SMBMI) shall be contacted regarding any pre-contact finds and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment. Construction activities may continue on other parts of the Project site while evaluation occurs. If the find is determined by the archaeologist to constitute a potentially significant archaeological resource, time allotment sufficient to allow for implementation of avoidance measures shall be made available. In accordance with CEQA Guidelines Section 15064.5(f) and/or Public Resources Code Sections 21083.2(b), if the discovery proves significant under the California Environmental Quality Act (CEQA), a treatment and monitoring plan shall be prepared by a qualified archaeologist for the resource(s), in coordination with SMBMI. The drafts of the treatment and monitoring plan shall be provided to SMBMI for review and comment. All subsequent finds shall be subject to the treatment and monitoring plan. The treatment and monitoring plan shall allow for a monitor to be present that represents SMBMI for the remainder of the Project, should SMBMI elect to place a monitor on-site. Treatment may include preservation in place or implementation of archaeological data recovery excavations to remove the resource along with subsequent analysis. Any archaeological material that is not Native American in origin shall be curated at a public, non-profit institution with a research interest in	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		the material. If the find is Native American in origin, the tribe(s) that consider the Project area to be within their ancestral land or traditional use area, including the SMBMI, shall be contacted by the City of Hesperia to coordinate treatment and curation. Any and all archaeological/cultural documents created as a part of the Project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied by the Project Applicant and City of Hesperia for dissemination to SMBMI. The City of Hesperia and/or Project Applicant shall, in good faith, consult with SMBMI throughout the life of the Project. This requirement shall be noted on all grading plans, and the construction contractor shall be obligated to comply with the note. This requirement shall be noted on all grading plans, and the construction contractor shall be obligated to comply with the note.	
Would the Project disturb any human remains, including those interred outside of dedicated cemeteries?	Potentially significant impact	**MM-CUL-4.** In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the county coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the county coroner has determined, within 2 working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the county coroner determines that the remains are, or are believed to be, Native American, he or she shall notify the Native American Heritage Commission (NAHC) in Sacramento within 24 hours. In accordance with California Public Resources Code Section 5097.98, the NAHC must immediately notify those persons it	Less-than-significant impact with mitigation incorporated

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		believes to be the most likely descendant of the deceased Native American. The most likely descendant shall complete her/his inspection within 48 hours of being granted access to the site. The designated Native American representative shall then determine, in consultation with the property owner, the proper disposition of the human remains. This requirement shall be noted on all grading plans, and the construction contractor shall be obligated to comply with the note	
Would the Project have a cumulative effect on cultural resources?	Potentially significant impact	**MM-CUL-1** **MM-CUL-2** **MM-CUL-3** **MM-CUL-4** **MM-CUL-5**	Less-than-significant impact with mitigation incorporated
Energy			
Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project have a cumulative effect on energy resources?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Geology and Soils			
Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:			
a. 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?	No impact	No mitigation would be required.	No impact
b. Strong seismic ground shaking?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
c. Seismic related ground failure including liquefaction?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
d. Landslides?	No impact	No mitigation would be required.	No impact
Would the Project result in substantial soil erosion or the loss of topsoil?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Potentially significant impact	**MM-CUL-5.** If paleontological resources (sites, features, or fossils) are exposed during Project construction activities, all construction work occurring within 100 feet of the find shall immediately stop until a qualified paleontologist can evaluate the significance of the find and determine whether or not additional study is warranted. If the discovery proves significant under the California Environmental Quality Act, discovered fossils or samples of such fossils shall be collected and identified by the qualified paleontologist. Significant specimens recovered shall be properly recorded, treated, and donated to the San Bernardino County Museum, Division of Geological Sciences, or other repository with permanent retrievable paleontologic storage. A final report shall be prepared and submitted to the City of Hesperia that itemizes any fossils recovered, with maps to accurately record the original location of recovered fossils and evidence that the resources were curated by an established museum repository. This requirement shall be noted on all grading plans, and the construction contractor shall be obligated to comply with the note.	Less-than-significant impact with mitigation incorporated
Would the Project have a cumulative effect on geology and soils resources?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Greenhouse Gas Emissions			
Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project have a cumulative effect on greenhouse gas emissions?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Hazards and Hazardous Materials			
Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Potentially significant impact	**MM-HAZ-1.** Prior to the issuance of a grading permit, the Project Applicant shall retain a qualified environmental specialist to remove and dispose of all refuse located on the Project site, including but not limited to, the illegally-dumped tires and oil containers currently found on site. The removal, transport, and disposal of refuse shall be done in accordance with all applicable local, state, and federal guidelines related to hazardous materials handling. Prior to the removal of refuse deposits from the site, the environmental specialist shall inspect each refuse pile for indications that the refuse may contain – or may have once contained – hazardous materials, including, but not limited to, motor oil, solvents, paints, and/or other petroleum products. In addition, the environmental specialist shall inspect the soils surrounding each refuse deposit for evidence of any contamination (staining) or volatilization of contaminants (odors). If contamination indicators are identified, work shall stop in the proximity of the potential contamination. The Project applicant and/or their construction	Less-than-significant impact with mitigation incorporated

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		contractor shall be responsible for engaging a qualified environmental specialist to design and perform an investigation to verify the presence and extent of contamination on the Project site. Subsurface investigation shall determine appropriate worker protection and hazardous material and disposal procedures appropriate for the Project site. Contaminated soil or groundwater determined to be hazardous shall be removed by personnel who have been trained through the Occupational Safety and Health Administration–recommended 40-hour safety program with an approved plan for groundwater extractions, soil excavation, control of contaminant releases to the air, and off-site transport or on-site treatment.	
Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Potentially significant impact	**MM-HAZ-1**	Less-than-significant impact with mitigation incorporated
Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	No impact	No mitigation would be required.	No impact
Would the Project be located on a site that 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?	No impact	No mitigation would be required.	No impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?	No impact	No mitigation would be required.	No impact
Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project have a cumulative effect on hazards or hazardous materials?	Potentially significant impact	**MM-HAZ-1**	Less-than-significant impact with mitigation incorporated
Hydrology and Water Quality			
Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:			
a. result in substantial erosion or siltation on or off site;	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
b. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
c. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
d. impede or redirect flood flows?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
In flood hazard, tsunami, or seiche zones, would the Project risk release of pollutants due to Project inundation?	No impact	No mitigation would be required.	No impact
Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project have a cumulative effect on hydrology or water quality resources?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Land Use and Planning			
Would the Project physically divide an established community?	No impact	No mitigation would be required.	No impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the Project 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?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project have a cumulative effect on land use resources?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Mineral Resources			
Would the Project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project have a cumulative effect on mineral resources?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Noise			
Would the Project result in 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?	Potentially significant impact	Mitigation measures were considered; however, based on the infeasibility of potential mitigation to adequately reduce off-site Project traffic noise levels to less-than-significant levels, and because there are no assurances that noise-reducing measures could be adequately implemented, no reasonably feasible and implementable mitigation measures have been identified.	Significant and unavoidable impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?	No impact	No mitigation would be required.	No impact
Would the Project result in cumulatively considerable noise impacts?	Potentially significant impact	Mitigation measures were considered; however, based on the infeasibility of potential mitigation to adequately reduce off-site Project traffic noise levels to less-than-significant levels, and because there are no assurances that noise-reducing measures could be adequately implemented, no reasonably feasible and implementable mitigation measures have been identified.	Significant and unavoidable impact
Population and Housing			
Would the Project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No impact	No mitigation would be required.	No impact
Would the Project have a cumulative effect on housing and/or population resources?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Public Services			
Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:			
Fire protection?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Police protection?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Schools?	No impact	No mitigation would be required.	No impact
Parks?	No impact	No mitigation would be required.	No impact
Other public facilities?	No impact	No mitigation would be required.	No impact
Would the Project have a cumulative effect on public services resources?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Recreation			
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?	No impact	No mitigation would be required.	No impact
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?	No impact	No mitigation would be required.	No impact
Would the Project have a cumulative effect on recreation resources?	No impact	No mitigation would be required.	No impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Transportation			
Would the Project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	Potentially significant impact	**MM-TRA-1.** The Project applicant shall submit a Transportation Demand Management (TDM) plan prepared by a qualified transportation consultant acceptable to the City of Hesperia to reduce Project's vehicle miles traveled. The TDM plan shall be approved by the City prior to the issuance of the first occupancy permit. The TDM plan shall apply to Project tenants through tenant leases. The TDM plan shall discourage single-occupancy vehicle trips and encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking. Examples of trip reduction measures may include, but are not limited to: • Transit passes • Car-sharing programs • Telecommuting and alternative work schedules • Ride sharing programs	Significant and unavoidable impact
Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Potentially significant impact	The Project could result in potentially significant impacts associated with increasing hazards due to a geometric design feature related to queuing. Improvement measures required to mitigate Project's impact would include fair-share contribution to Intersections #9, #12, #13, #14, and #15. Since the City does not have jurisdiction over these facilities, these improvements cannot be assumed to be in place prior to Project's occupancy.	Significant and unavoidable impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the Project result in inadequate emergency access?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project have a cumulative effect on transportation resources?	Potentially significant impact	**MM-TRA-1**	Significant and unavoidable impact
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)?	Potentially significant impact	**MM-CUL-1** **MM-CUL-2** **MM-CUL-3** **MM-CUL-4**	Less-than-significant impact with mitigation incorporated
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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	Potentially significant impact	**MM-CUL-1** **MM-CUL-2** **MM-CUL-3** **MM-CUL-4**	Less-than-significant impact with mitigation incorporated

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the Project have a cumulative effect on tribal cultural resources?	Potentially significant	MM-CUL-1 MM-CUL-2 MM-CUL-3 MM-CUL-4	Less-than-significant impact with mitigation incorporated
Utilities and Service Systems			
Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project result in a determination by the wastewater treatment provider, which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project 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?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the Project have a cumulative effect on utilities and/or service systems resources?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Wildfire			
Would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Due to slope, prevailing winds, and other factors, would the Project exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project 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?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project 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?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact
Would the Project have a cumulative effect on wildfire?	Less-than-significant impact	No mitigation would be required.	Less-than-significant impact

1.6 Alternatives to the Project

Section 15126.6(a) of the CEQA Guidelines states that an EIR shall describe "a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project," as well as provide an evaluation of "the comparative merits of the alternatives." Under CEQA Guidelines Section 15126.6(a), an EIR does not need to consider alternatives that are not feasible, nor does it need to address every conceivable alternative to the project. The range of alternatives "is governed by the 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice" (14 CCR 15126.6[f]).

No Project/No Development Alternative (Alternative 1)

Under Alternative 1, construction of the Project would not occur. The Project site would remain unchanged, and development activities related to construction and operation of the proposed industrial/warehouse buildings, associated office spaces, surface parking and loading areas, and all other proposed on- and off-site improvements would not occur.

In the short term, consistent with the existing conditions, the Project site would continue to be undeveloped. Under Alternative 1, the Project site would remain vacant, undeveloped land, although the site would presumably continue to be subject to illegal dumping, trespassing, and unpermitted off-road vehicle use, similar to the existing conditions.

No Project/Other Development Project Alternative (Alternative 2)

Under Alternative 2, the Project site would be redeveloped with other land uses, consistent with the property's CIBP zoning.

The CIBP zone is intended to provide for service commercial, light industrial, light manufacturing and industrial support uses, mainly conducted in enclosed buildings. The Main Street and Freeway Corridor Specific Plan lists several different uses that are either permit by right or conditionally permitted in the CIBP zone. These include commercial storage facilities/mini-warehouses (i.e., self-storage facilities), offices, manufacturing, small and large equipment sales and rental, schools, vehicle rental and sales, minor and major vehicle repair, and vehicle wash facilities.

No zoning variances are being requested as part of the Project, and thus, the Project would be constructed consistent with the design requirements set forth for the CIBP zone in the Main Street and Freeway Corridor Specific Plan. It is assumed that Alternative 2 would involve development of a land use that would be permissible either by right or by a conditional use permit, including the aforementioned land uses listed above. It is also assumed that those uses would share a similar development intensity/floor-area-ration/site coverage as the Project. Land uses that are expressly not allowed in the CIBP zone—specifically residential—would not be considered under Alternative 2.

Moreover, given the Project site's proximity to major regional transportation routes (e.g., U.S. Highway 395, I-15, and other local truck routes), and because of the continued demand for new industrial/warehouse operations in the Project region, it is assumed that the Project constructed under Alternative 2 would consist of warehouse, distribution, logistics, or other similar type industrial (or industrial-supporting) land use of similar size as the Project.

Reduced Development Intensity Alternative (Alternative 3)

Presently, the only approach to reducing the Project's operational-related air quality, noise, and vehicle miles traveled impacts would be to reduce the total number of daily trips and employees generated by the Project. As

such, in an effort to reduce the Project's significant and unavoidable impacts, the City considered a Reduced Development Intensity Alternative (Alternative 3).

Under Alternative 3, the Project would be constructed and operated as planned on the Project site, with the exception that the size of the proposed development would be reduced by 15%, equating to an industrial/warehouse project consisting of approximately 3,183,615 square feet, compared to the Project's 3,745,429 square feet. Since the building footprint would be reduced by 561,814 square feet (approximately 12.9 acres), this extra space on the Project site would remain vacant. All other on- and off-site improvements proposed as part of the Project are assumed to still be required under Alternative 3.

Environmentally Superior Alternative

Section 15126(e)(2) of the State CEQA Guidelines requires an EIR to identify an "environmentally superior alternative." If the No Project/No Development Alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other Project alternatives.

Each of the three Project alternatives considered herein would lessen at least one environmental impact relative to the Project. As previously addressed, if the No Project/No Development Alternative is the environmentally superior alternative—which is the case in this analysis—the EIR must also identify another environmentally superior alternative among the remaining alternatives.

Based on a comparison of Alternative 2 and Alternative 3, environmental impacts associated with air quality, energy, GHG emissions, and noise would be less under Alternative 3 compared to Alternative 2. Impacts associated with biological resources, cultural, tribal cultural, and paleontological resources, hazards and hazardous materials, hydrology and water quality, transportation, and utilities and services systems would be similar under Alternative 3 compared to Alternative 2, and only one impact (aesthetics) would be increased under Alternative 3 compared to Alternative 2. Overall, based on these findings, Alternative 3 would be considered the environmentally superior alternative.

1.7 Areas of Controversy/Issues to Be Resolved

The scope of this Draft EIR includes the potential environmental impacts identified in the Initial Study/Notice of Preparation (IS/NOP) that was available for public review from November 21, 2019 through December 20, 2019; comments received during a public scoping meeting held on December 12, 2019, at Hesperia City Hall; and agency and public written comment received in response to the NOP.

A summary of these written comment letters are provided in Table 1-2. The written comments and the NOP are included as Appendix A of this Draft EIR.

Table 1-2. Summary of Initial Study/Notice of Preparation Comments

Commenter	Date	Summary of Environmental Issues Raised	EIR Chapter/Section Where Comment is Addressed
State Agency			
State Clearinghouse	November 21, 2019	Notice provided by the State Clearinghouse with a reminder to comment on the Project's Notice of Preparation.	N/A
Native American Heritage Commission (NAHC)	November 25, 2019	Recommendations for cultural assessment by contacting the appropriate regional California Historical Research Information System Center; contacting NAHC for Sacred Lands File search and Native American Tribal Consultation List; and consulting legal counsel about compliance with Assembly Bill 52 and other applicable laws.	Section 4.4, Cultural, Tribal Cultural, and Paleontological Resources
California Department of Fish and Wildlife	December 19, 2019	Recommendations for procedures to assess potential impacts to biological resources and recommendation of mitigation measures if necessary.	Section 4.3, Biological Resources
Private Organizations and Members of the Public			
Lozeau Drury, LLP	November 22, 2019	Formal request to receive notices for all Project-related actions and hearings.	N/A
Brenda Hetzel	December 2, 2019; December 8, 2019 (Second letter)	Potential impacts relating to noise, traffic, light pollution, overcrowding, air quality emissions, water supply, groundwater quality, and property values.	Section 4.1, Aesthetics; Section 4.2, Air Quality; Section 4.8, Hydrology and Water Quality; Section 4.9, Noise; Section 4.10, Transportation
Larry Joe Williams	December 5, 2019	Potential impacts relating to air quality, hazardous materials, noise, and Project-generated traffic at U.S. Highway 395 and Phelan Road.	Section 4.2, Air Quality; Section 4.7, Hazards, Hazardous Materials, and Wildfire; Section 4.9, Noise; Section 4.10, Transportation
Chris Sherburne	December 11, 2019	Potential impacts relating to site access and safety.	Section 4.10, Transportation
San Bernardino County Department of Public Works	December 20, 2019	Request to include traffic impacts and proposed mitigation to Phelan Road from the Project site westwards to SR-138; Discuss impacts and mitigation measures associated with Hydrology and Water Quality in the Draft Environmental Impact Report.	Section 4.8, Hydrology and Water Quality; Section 4.10, Transportation; Appendix A (Initial Study/Notice of Preparation)

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2 Introduction

2.1 Purpose of the California Environmental Quality Act Process

This Draft Environmental Impact Report (EIR) was prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental effects associated with implementation of the Hesperia Commerce Center II Project (Project). It was prepared in accordance with Title 14, Section 15000 et seq. of the California Code of Regulations (CEQA Guidelines), and the rules, regulations, and procedures for implementing CEQA as adopted by the City of Hesperia (City). Consistent with Section 15161 of the CEQA Guidelines, this document is a project-level EIR and evaluates the potential environmental impacts associated with a specific project. As the lead agency for the Project, the City must complete an environmental review to determine if the Project could potentially result in significant adverse environmental effects.

CEQA Guidelines Section 15002 states that the basic purposes of CEQA are to:

- Inform governmental decision makers and the public about the potential significant environmental effects of proposed government actions (including the discretionary approval of development projects);
- Identify the ways that environmental damage can be avoided or significantly reduced; and
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
- If a project will be approved involving significant environmental effects, the lead agency must also disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose.

This Draft EIR provides project-level analysis of the potential environmental effects related to implementation of the Project. The level of impact analysis in this Draft EIR corresponds to the degree of specificity deemed appropriate in accordance with CEQA Guidelines Section 15146. This Draft EIR addresses the potentially significant environmental impacts that could occur as a result of construction and operation of the Project. This document also identifies appropriate and feasible mitigation measures, where necessary, and includes Project alternatives that could be adopted to reduce or avoid potential significant environmental effects.

The Project is consistent with the Project site's land use and zoning designations applied by the City of Hesperia General Plan, Main Street and Freeway Corridor Specific Plan, and the Hesperia Municipal Code. CEQA Guidelines Section 15183(a) mandates that projects that are consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified do not require additional environmental review, except as might be necessary to examine whether there would be project-specific significant effects that are particular to that project or its site. In this case, use of the Project site for Commercial and Industrial Business Park (CIBP)[1] land uses was analyzed as part of the City's Main Street and Freeway Corridor Specific Plan Program EIR (State Clearinghouse No. 2006041101), and as part of the City's General Plan Program EIR (State Clearinghouse No. 2010011011). Thus, as mandated by CEQA Guidelines Section 15183(a), this EIR does not need to reanalyze planned

[1] Note that while the City of Hesperia General Plan designates the Project site as "Specific Plan," the Main Street and Freeway Corridor Specific Plan designates the Project site as "Commercial and Industrial Business Park."

use of the Project site for Commercial and Industrial Business Park uses. This EIR focuses on Project-specific effects that are peculiar to the Project and the 194.8-acre Project site.

This Draft EIR is an informational document for public agencies and members of the public, allowing informed decisions to be made regarding the purpose, objectives, and components of the Project. This Draft EIR is the primary reference document for the formulation and implementation of a Mitigation Monitoring and Reporting Program for the Project, in compliance with California Public Resources Code (PRC), Section 21081.6.

2.2 Legal Authority and Lead Agency

This EIR was prepared in accordance with all criteria, standards, and procedures of CEQA (PRC Section 21000 et seq.) and the CEQA Guidelines (14 CCR 15000 et seq.).

Pursuant to CEQA Section 21067 and CEQA Guidelines Article 4 and Section 15367, the City is the lead agency under whose authority this EIR has been prepared. "Lead agency" refers to the public agency that has the principal responsibility for carrying out or approving a project. Serving as the lead agency and before taking action to approve the Project, the City has the obligation to (1) ensure that this EIR was completed in accordance with CEQA; (2) review and consider the information contained in this EIR as part of its decision-making process; (3) make a statement that this EIR reflects the City's independent judgment; (4) ensure that all significant impacts on the environment are eliminated or substantially lessened, where feasible; and, if necessary (5) make written findings for each unavoidable significant environmental effect stating the reasons why mitigation measures or Project alternatives identified in this EIR are infeasible and citing the specific benefits of the Project that outweigh its unavoidable adverse effects (14 CCR 15090–15093).

Pursuant to CEQA Guidelines Section 15040 through 15043, and upon completion of the CEQA review process, the City will have the legal authority to do any of the following:

- Approve the Project;
- Require feasible changes in any or all activities involved in the Project to substantially lessen or avoid significant effects on the environment;
- Disapprove the Project, if necessary, to avoid one or more significant effects on the environment that would occur if the Project was approved as proposed; or
- Approve the Project even though the Project would cause a significant effect on the environment if the City makes a fully informed and publicly disclosed decision that (1) there is no feasible way to lessen the effect or avoid the significant effect, and (2) expected benefits from the Project will outweigh significant environmental impacts of the Project.

This EIR fulfills the CEQA environmental review requirements for the proposed Conditional Use Permit (CUP19-00010), Tentative Parcel Map (TPM 20257), Development Agreement, and all other governmental discretionary and ministerial actions related to the Project.

This document is an informational document intended for use by City decision makers, trustee, and responsible agencies, and members of the general public in evaluating the physical environmental impacts of the Project. This Draft EIR is the primary reference document for the formulation and implementation of a Mitigation Monitoring and Reporting Program for the Project, in compliance with PRC Section 21081.6. Environmental impacts cannot always be mitigated to a level considered less than significant. In accordance with Section 15093(b) of the CEQA

Guidelines, if a lead agency approves a project that has significant impacts that are not substantially mitigated (i.e., significant unavoidable impacts), the agency shall state in writing the specific reasons for approving the Project, based on the final CEQA documents and any other information in the public record. This is defined in Section 15093 of the CEQA Guidelines as "a statement of overriding considerations."

2.3 Responsible and Trustee Agencies

Section 21104 of the California PRC requires that all EIRs be reviewed by state responsible and trustee agencies (see also 14 CCR 15082 and 15086[a]). As defined by CEQA Guidelines Section 15381, "the term 'Responsible Agency' includes all public agencies other than the Lead Agency which have discretionary approval power over the project." A trustee agency is defined in CEQA Guidelines Section 15386 as "a state agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California."

For this Project, the California Department of Fish and Wildlife is a trustee agency, because the Project has the potential to impact plant and wildlife species that are managed and protected by the State.

2.4 Summary of Project Analyzed in this Environmental Impact Report

The Project would involve construction and operation of three industrial/warehouse buildings. Building 1 (the northwesternmost building) would be 1,567,317 square feet, Building 2 (the southernmost building) would be 2,065,987 square feet, which would potentially be divided between two spaces within the same building, and Building 3 would be 112,125 square feet. In total, the Project would provide 3,745,429 square feet of industrial/warehouse space and associated improvements, including loading docks, tractor-trailer stalls, passenger vehicle parking spaces, and landscaping. The Project would also include several off-site utility and public street improvements, including improvements to Phelan Road and Yucca Terrace Road, as well as installation of or upsizing of water, sewer, and stormwater lines in the immediate vicinity of the Project site.

2.4.1 Requested Approvals

The following discretionary and ministerial actions under the jurisdiction of the City would be required. This Draft EIR covers all state and local government, and quasi-government approvals that may be needed to implement the Project, whether or not they are explicitly listed in this section or elsewhere in this Draft EIR (14 CCR 15124[d]).

Discretionary Approvals

Development Review Committee

- ***Administrative Review.*** An administrative review by the Development Review Committee (DRC) is held in order to review the Project. Such review will yield a recommendation and/or ruling by City administrative staff.

Planning Commission

- ***Project Review.*** A review by the Planning Commission is held in order to review the Project, including all requested entitlements. Such review will yield a recommendation to the City Council.

- ***Recommendation Certification of Environmental Impact Report.*** The Planning Commission will review the Draft EIR and make a recommendation to the City Council to certify or reject this Draft EIR, along with appropriate CEQA Findings and the Mitigation Monitoring and Reporting Program.

City Council

- ***Conditional Use Permit.*** Project implementation would require approval of a Conditional Use Permit (CUP 19-00010) by the Planning Commission. The Main Street and Freeway Corridor Specific Plan requires review and approval of a Conditional Use Permit for warehousing and wholesale distribution centers over 200,000 square feet located in the Main Street/I-15 District of the Specific Plan. The Project includes more than 200,000 square feet of total building area, and thus, falls under this category.
- ***Tentative Parcel Map.*** Project implementation would require processing of a Tentative Parcel Map (TPM 20257), to reorganize the Project site from four parcels (Assessor Parcel Numbers 3064-391-01, 3064-401-02, 3064-361-01, and 3064-351-03) into three parcel. Covenants, Conditions, and Restrictions will be recorded with the parcel map to establish the basis for the ownership of individual buildings within three parcels and the operation and maintenance of the common on-site improvements.
- ***Certification of Environmental Impact Report.*** Certify or reject this Draft EIR, along with appropriate CEQA Findings and the Mitigation Monitoring and Reporting Program.
- ***Development Agreement.*** Approve a Development Agreement between the City and the Project Applicant pursuant to Section 16.12.085 of the Hesperia Municipal Code.

Ministerial Approvals

City of Hesperia Subsequent Implementing Approvals

- Approvals for water, sewer, and storm drain infrastructure
- Remove and relocate on-site protected native desert plants
- Issue grading permits
- Issue building permits
- Issue encroachment permits

2.4.2 Project of Statewide, Regional, or Area-Wide Environmental Significance

CEQA Guidelines Section 15206 identifies the types of projects considered to be of statewide, regional, or area-wide significance. When a project is so classified, its Draft EIR must be submitted to the State Clearinghouse of the Governor's Office of Planning and Research, and the appropriate metropolitan area council of governments. This Project meets the following criteria of a project of statewide, regional, or area-wide significance:

- The Project has the potential for causing significant environmental effects extending beyond the City of Hesperia.

2.5 Scope of this Environmental Impact Report

2.5.1 Notice of Preparation Scoping Process

The purpose of this Draft EIR is to evaluate the potential environmental impacts associated with implementation of the Project. The City concluded that the Project could potentially have direct or indirect adverse effects on the environment. Accordingly, the City determined the need for preparation of an EIR for the Project. The scope of this Draft EIR includes the potential environmental impacts identified in the Initial Study/Notice of Preparation (IS/NOP) that was available for public review from November 21, 2019 through December 20, 2019; comments received during a public scoping meeting held on December 12, 2019, at Hesperia City Hall; and agency and public written comment received in response to the NOP.

A summary of these written comment letters are provided in Table 2-1. The written comments and the NOP are included as Appendix A of this Draft EIR.

Table 2-1. Summary of Initial Study/Notice of Preparation Comments

Commenter	Date	Summary of Environmental Issues Raised	EIR Chapter/Section Where Comment is Addressed
State Agency			
State Clearinghouse	November 21, 2019	Notice provided by the State Clearinghouse with a reminder to comment on the Project's IS/NOP.	N/A
Native American Heritage Commission (NAHC)	November 25, 2019	Recommendations for cultural assessment by contacting the appropriate regional California Historical Research Information System Center; contacting NAHC for Sacred Lands File search and Native American Tribal Consultation List; and consulting legal counsel about compliance with Assembly Bill 52 and other applicable laws.	Section 4.4, Cultural, Tribal Cultural, and Paleontological Resources
California Department of Fish and Wildlife	December 19, 2019	Recommendations for procedures to assess potential impacts to biological resources and recommendation of mitigation measures if necessary.	Section 4.3, Biological Resources
Private Organizations and Members of the Public			
Lozeau Drury, LLP	November 22, 2019	Formal request to receive notices for all Project-related actions and hearings.	N/A
Brenda Hetzel	December 2, 2019; December 8, 2019 (Second letter)	Potential impacts relating to noise, traffic, light pollution, overcrowding, air quality emissions, water supply, groundwater quality, and property values.	Section 4.1, Aesthetics; Section 4.2, Air Quality; Section 4.8, Hydrology and Water Quality; Section 4.9, Noise; Section 4.10, Transportation

Table 2-1. Summary of Initial Study/Notice of Preparation Comments

Commenter	Date	Summary of Environmental Issues Raised	EIR Chapter/Section Where Comment is Addressed
Larry Joe Williams	December 5, 2019	Potential impacts relating to air quality, hazardous materials, noise, and Project-generated traffic at U.S. Highway 395 and Phelan Road.	Section 4.2, Air Quality; Section 4.7, Hazards, Hazardous Materials, and Wildfire; Section 4.9, Noise; Section 4.10, Transportation
Chris Sherburne	December 11, 2019	Potential impacts relating to site access and safety.	Section 4.10, Transportation
San Bernardino County Department of Public Works	December 20, 2019	Request to include traffic impacts and proposed mitigation to Phelan Road from the Project site westwards to SR-138; Discuss impacts and mitigation measures associated with Hydrology and Water Quality in the Draft Environmental Impact Report.	Section 4.8, Hydrology and Water Quality; Section 4.10, Transportation; Appendix A (IS/NOP)

2.5.2 Environmental Issues Determined not to be Significant

Pursuant to CEQA, the discussion of potential environmental impacts is focused on those impacts that could be significant or potentially significant. CEQA allows the lead agency to limit the detail of discussion of the environmental impacts that are not considered potentially significant (PRC Section 21100; 14 CCR 15126.2[a] and 15128). CEQA requires that the discussion of any significant environmental effect be limited to substantial, or potentially substantial, adverse changes in physical conditions that exist within the affected area, as defined in PRC Section 21060.5. In accordance with CEQA Guidelines Section 15143, environmental impacts dismissed in an analysis as clearly insignificant and unlikely to occur need not be discussed further in the EIR unless the lead agency subsequently receives information inconsistent with the finding.

As part of the NOP scoping process, environmental issue areas identified in the Initial Study prepared for the Project that were found to have no impact or a less-than-significant impact are provided in the Initial Study (Appendix A), and Chapter 5, Effects Found Not to Be Significant of this Draft EIR. Thus, with the exception of the impact discussion in the Initial Study and Chapter 5 of this Draft EIR, these environmental issues are not discussed at further length in this Draft EIR:

- Agricultural and forestry resources
- Geology and soils (with the exception of paleontological resources, which is discussed in Section 4.4, Cultural, Tribal Cultural, and Paleontological Resources, of this Draft EIR)
- Hazards and hazardous materials (with regard to hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; hazardous materials sites compiled pursuant to Government Code Section 65962.5; airport land use plans; and emergency response plans or emergency evacuation plans)
- Hydrology and water quality (with regard to flood hazard, tsunami, or seiche zones)
- Land use and planning

- Mineral resources
- Population and housing
- Public services
- Recreation

2.5.3 Environmental Issues Determined to be Potentially Significant

Pursuant to CEQA and CEQA Guidelines Section 15064, the discussion of potentially significant environmental impacts is focused within this Draft EIR on those impacts that the lead agency has determined could be potentially significant. A determination of those environmental impacts that would be potentially significant was made for the Project based on a review of comments received as part of the NOP scoping process and additional research and analysis of relevant information during preparation of this Draft EIR.

The scope of this Draft EIR includes environmental issues identified by the City during the preparation of the NOP, as well as issues raised by public agencies and members of the public in response to the NOP. The following environmental issue areas were determined to be potentially significant and are addressed at further length in this Draft EIR:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural, Tribal Cultural, and Paleontological Resources
- Energy
- Greenhouse Gas Emissions
- Hazards, Hazardous Materials, and Wildfire
- Hydrology and Water Quality
- Noise
- Transportation
- Utilities and Service Systems

2.6 Organization of this Environmental Impact Report

This Draft EIR contains all of the information required to be included in an EIR, as specified by the CEQA Statutes and Guidelines (PRC Section 21000 et seq.; 14 CCR 15000 et seq.). CEQA requires that an EIR contain, at a minimum, specified content. The following provides a quick reference in locating the CEQA-required sections within this document:

- **Chapter 1: Executive Summary.** The Executive Summary provides a summary of the Project and Project alternatives, including a summary of the Project and cumulative impacts, recommended mitigation measures, and the level of significance after mitigation for each environmental issue.
- **Chapter 2: Introduction.** The Introduction provides an overview of the Project and the CEQA process, and describes the purpose, scope, and components of this Draft EIR.

- **Chapter 3: Project Description.** The Project Description provides a detailed description of the Project, including the location and Project characteristics. The intended uses of this Draft EIR, Project background, Project objectives, and required Project approvals are also addressed.
- **Chapter 4: Environmental Analysis.** The Environmental Analysis chapter analyzes the environmental impacts of the Project. Impacts are organized into major environmental topic areas. Each topic area includes a description of the environmental setting, regulatory setting, significance criteria, individual and cumulative impacts, mitigation measures, and level of significance after mitigation. The following specific environmental areas are addressed in Chapter 4:
  - Section 4.1 – Aesthetics
  - Section 4.2 – Air Quality
  - Section 4.3 – Biological Resources
  - Section 4.3 – Cultural, Tribal Cultural, and Paleontological Resources
  - Section 4.5 – Energy
  - Section 4.6 – Greenhouse Gas Emissions
  - Section 4.7 – Hazards, Hazardous Materials, and Wildfire
  - Section 4.8 – Hydrology and Water Quality
  - Section 4.9 – Noise
  - Section 4.10 – Transportation
  - Section 4.11 – Utilities and Service Systems
- **Chapter 5: Effects Found Not To Be Significant.** The Effects Found Not To Be Significant chapter provides a summary of Project impacts that have been determined, through preparation of the IS/NOP, to result in less-than-significant or no impact, and therefore, further discussion is not warranted.
- **Chapter 6: Other CEQA Considerations.** The Other CEQA Considerations chapter provides a summary of significant environmental impacts, including unavoidable, irreversible, and growth-inducing impacts.
- **Chapter 7: Alternatives.** The Alternatives chapter provides a comparison between the Project impacts and three Project alternatives: (1) the No Project/No Development Alternative, (2) No Project/Other Development Project Alternative, and (3) the Reduced Development Intensity Alternative.
- **Chapter 8: List of Preparers.** The List of Preparers chapter provides a list of the organizations, persons consulted, and various individuals who contributed to the preparation of this Draft EIR. This section also includes a list of the lead agency personnel and technical consultants used to prepare this Draft EIR.
- **Appendices.** The technical appendices contain the NOP (including public comments) and technical studies prepared to support the analyses and conclusions in this Draft EIR.

The Final EIR will be prepared after the public review period for this Draft EIR has been completed. The Final EIR will include comments and recommendations received on the Draft EIR during the public review period; a list of persons, organizations, and public agencies commenting on the Draft EIR; written responses to significant environmental issues identified in the comments received; and any other relevant information added by the City.

2.7 Documents Incorporated by Reference

Pursuant to CEQA Guidelines Section 15150, this Draft EIR has referenced several technical studies, analyses, and previously certified environmental documents. Information from these documents, incorporated by reference, is

briefly summarized in the appropriate chapters and sections. The documents that were used to prepare this Draft EIR include the following:

- City of Hesperia General Plan Update (2010)
- City of Hesperia Main Street and Freeway Corridor Specific Plan (2020 [Updated])
- Hesperia Municipal Code (Code of Ordinances) (2020 [Updated])
- County of San Bernardino General Plan (2007)

These reference documents, in accordance with CEQA Guidelines Section 15150(b), are available for review at the following locations:

City of Hesperia General Plan

https://www.cityofhesperia.us/DocumentCenter/View/15728/General-Plan-Update-August-2019

City of Hesperia Main Street and Freeway Corridor Specific Plan

https://www.cityofhesperia.us/411/Main-Street-Freeway-Corridor-Specific-Pl

Hesperia Code of Ordinances

https://library.municode.com/ca/hesperia/codes/code_of_ordinances

County of San Bernardino General Plan

http://www.sbcounty.gov/Uploads/lus/GeneralPlan/FINALGP.pdf

2.8 Documents Prepared for the Project

The following technical studies and analyses were prepared for the Project and Project Site and are incorporated into the technical appendices of this DEIR:

- IS/NOP and Scoping Comments, Appendix A
- Site Lighting Plan, Appendix B
- Air Quality Impact Analysis, Appendix C-1
- Health Risk Assessment, Appendix C-2
- Health Effects of Criteria Air Pollutants, Appendix C-3
- Biological Resources Letter Report, Appendix D-1
- Desert Native Plant Survey Results, Appendix D-1
- Joshua Tree Relocation Plan, Appendix D-3
- Desert Tortoise Protocol Survey Results, Appendix D-4
- Mojave Ground Squirrel Protocol Survey Results, Appendix D-5
- Biological Resources Technical Report for the Off-Site Utilities Alignments, Appendix D-6
- Cultural Resources Assessment, Appendix E-1

- Cultural Resources Assessment Supplement, Appendix E-2
- Tribal Consultation Records, Appendix E-3
- Energy Impact Analysis Report, Appendix F
- Greenhouse Gas Analysis Report, Appendix G
- Phase I Environmental Site Assessment, Appendix H
- Preliminary Water Quality Management Plan, Appendix I-1
- Preliminary Drainage Report, Appendix I-2
- Noise Impact Analysis, Appendix J
- Traffic Impact Analysis, Appendix K-1
- Vehicle Miles Traveled Analysis, Appendix K-2
- Water Supply Assessment, Appendix L

2.9 Review of the Draft Environmental Impact Report

Upon completion of this Draft EIR, the City prepared and filed a Notice of Completion with the Governor's Office of Planning and Research, State Clearinghouse to start the public review period (PRC Section 21161). Concurrent with the Notice of Completion, the City distributed a Notice of Availability in accordance with CEQA Guidelines Section 15087. The Notice of Availability was mailed to the agencies, organizations, and individuals who previously requested in writing to receive a copy. This Draft EIR was distributed to responsible and trustee agencies, other affected agencies, surrounding cities and municipalities, and all interested parties requesting a copy of this document in accordance with PRC Section 21092(b)(3). During the public review period, this Draft EIR, including the appendices, is available for review at the following locations:

In Person:

Hesperia City Hall, Planning Department
9700 Seventh Avenue
Hesperia, California 92345

Hesperia Branch Library
9650 Seventh Avenue
Hesperia, California 92345

Online:

https://www.cityofhesperia.us/312/Planning

Agencies, organizations, individuals, and all other interested parties not previously contacted, or who did not respond to the NOP, currently have the opportunity to comment on this Draft EIR during the public review period. Written or email comments on this Draft EIR should be addressed to:

Ryan Leonard, Senior Planner
City of Hesperia Planning Department
9700 Seventh Avenue
Hesperia, California 92345
Phone: (760) 947-1651
Email: rleonard@cityofhesperia.us

Upon completion of the public review period, written responses to all substantive environmental comments will be prepared and made available prior to the public hearing on the Project before the City of Hesperia's Planning Commission, at which the Project, the Final EIR, and requested entitlements will be considered for recommendation to the Hesperia City County. The comments received and the responses to those comments will be included as part of the record for consideration for the Project.

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3 Project Description

This chapter describes the objectives of the Hesperia Commerce Center II Project (Project) and the Draft Environmental Impact Report (EIR) and provides a detailed description of the Project characteristics. This chapter also discusses the required development approvals and discretionary actions necessary to implement the Project.

3.1 Project Location

The Project site is located in the eastern part of the City of Hesperia (City), which is located in the Victor Valley/High Desert region in western San Bernardino County (Figure 3-1, Regional Map; Figure 3-2, Vicinity Map; Figure 3-3, Project Site Aerial). The City is bordered by the City of Victorville to the north, City of Apple Valley to the east, unincorporated San Bernardino County land to the south, and the unincorporated community of Oak Hills to the west. Locally, the Project site is located at the northwest quadrant of U.S. Highway 395 and Phelan Road/Main Street. The Project site is bound by Yucca Terrace Drive to the north, U.S. Highway 395 to the east, Phelan Road to the south, and Los Angeles Department of Water and Power Road to the west. Regional access to the Project site is provided by U.S. Highway 395, immediately adjacent to the east, and Interstate (I) 15, located approximately 1 mile east of the Project site.

General Plan and Zoning Designations

Land use and development within the City is guided by the City of Hesperia General Plan, which serves as a foundation in making land use decisions based on goals and policies related to land use, transportation routes, population growth and distribution, development, open space, resource preservation and utilization, air and water quality, noise impacts, safety issues and other related physical, social, and economic development factors. Land use and development for the Project area is further guided by the Main Street and Freeway Corridor Specific Plan (Specific Plan).[1] According to the Specific Plan, the land use and zoning designations for the Project site are Commercial/Industrial Business Park (CIBP) (City of Hesperia 2010; City of Hesperia 2020) (see Figure 3-4, Land Use Designations, and Figure 3-5, Zoning).

3.2 Project Setting

Project Area

Under the California Environmental Quality Act (CEQA), the environmental baseline for a project is typically the physical environmental condition that exists in the vicinity of a project site when the Notice of Preparation is published (14 CCR 15125[a]). The Notice of Preparation for the Project was published on November 21, 2019, which will serve as the environmental baseline for the Project.

The approximately 194.8-acre, irregularly shaped Project site consists of vacant, undeveloped land, although the site has and continues to be disturbed as a result of illegal dumping, trespassing, and unpermitted off-road vehicle use. These unpermitted activities have led to areas of exposed bare soils (where trails have formed) and several debris piles.

[1] A Specific Plan is a regulatory tool that local governments use to implement the General Plan and to guide development in a localized area. While the General Plan is the overall guide for growth and development in a community, a Specific Plan is able to focus on the unique characteristics of a special area by customizing the planning process and land use regulations to that area.

Ground surface cover consists of moderate native brush and shrub growth, with occasional Juniper and Joshua trees located throughout the site. The site's surface elevation ranges between approximately 3,522 and 3,602 feet above mean sea level. The local topographic gradient is approximately 2% towards the northeast, and the southwestern corner of the site slopes moderately downward to the west.

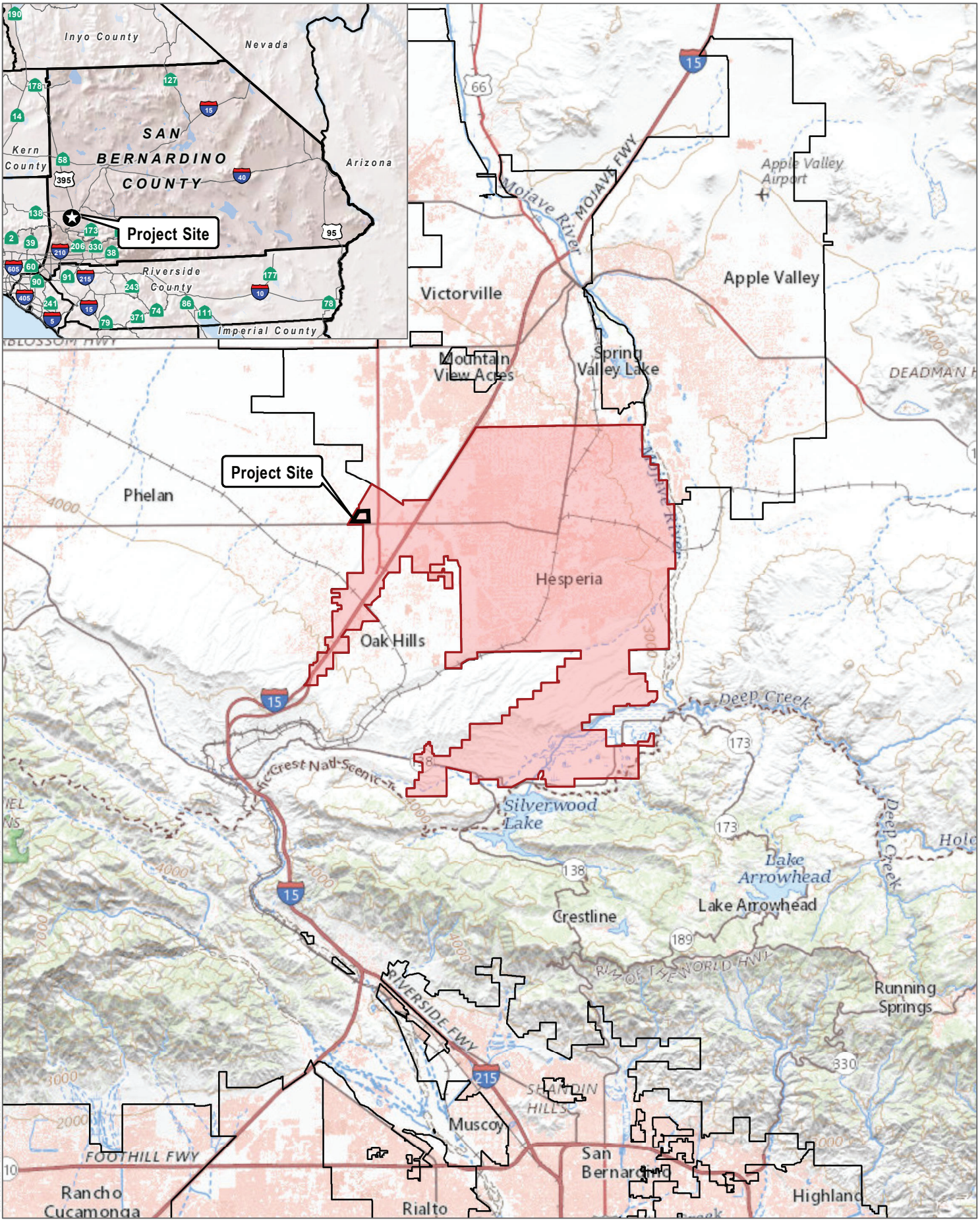
Land uses surrounding the Project site primarily consist of vacant land, along with some scattered residential, commercial, light industrial, and utility uses. Specific land uses located in the immediate vicinity of the Project site include the following:

- **North:** Vacant land and scattered commercial, light industrial, and rural residential uses
- **East:** Vacant land, U.S. Highway 395, and residential uses
- **South:** Vacant land and scattered rural residential, commercial, and light industrial uses
- **West:** Los Angeles Department of Water and Power utility/transmission corridor, vacant land, and rural residential uses

Cumulative Setting

In many cases, the impact of an individual project may not be significant, but its cumulative impact may be significant when combined with impacts from other related projects. Section 15355 of the CEQA Guidelines defines cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." CEQA Guidelines Section 15130(b) states that "the discussion [of cumulative impacts] need not provide as great detail as is provided for the effects attributable to the project alone." Section 15130(b) further states that a cumulative impacts discussion "should be guided by standards of practicality and reasonableness."

Cumulative impacts can occur from the interactive effects of a single project. For example, the combination of noise and dust generated during construction activities can be additive and can have a greater impact than either noise or dust alone. However, substantial cumulative impacts more often result from the combined effect of past, present, and future projects located in proximity to a proposed project. Thus, it is important for a cumulative impacts analysis to be viewed over time and in conjunction with other related past, present, and reasonably foreseeable future projects, the impacts of which might compound or interrelate with those of the project under review.



SOURCE: USGS US Topo 2018

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Figure 3-1

Regional Map

Hesperia Commerce Center II

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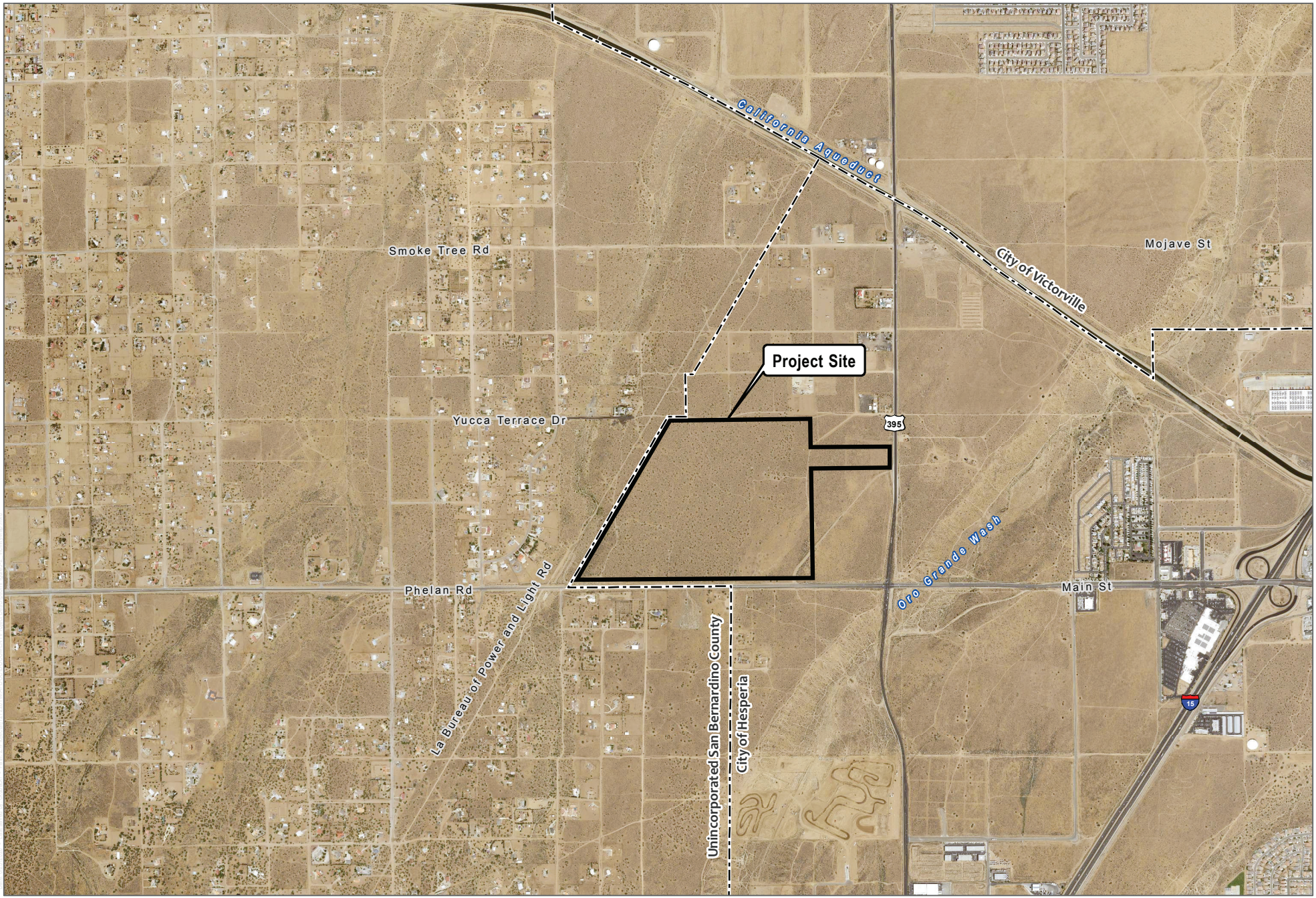

SOURCE: USDA NAIP 2016

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FIGURE 3-2

Vicinity Map

Hesperia Commerce Center II

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SOURCE: USDA NAIP 2016

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FIGURE 3-3

Project Site Aerial

Hesperia Commerce Center II

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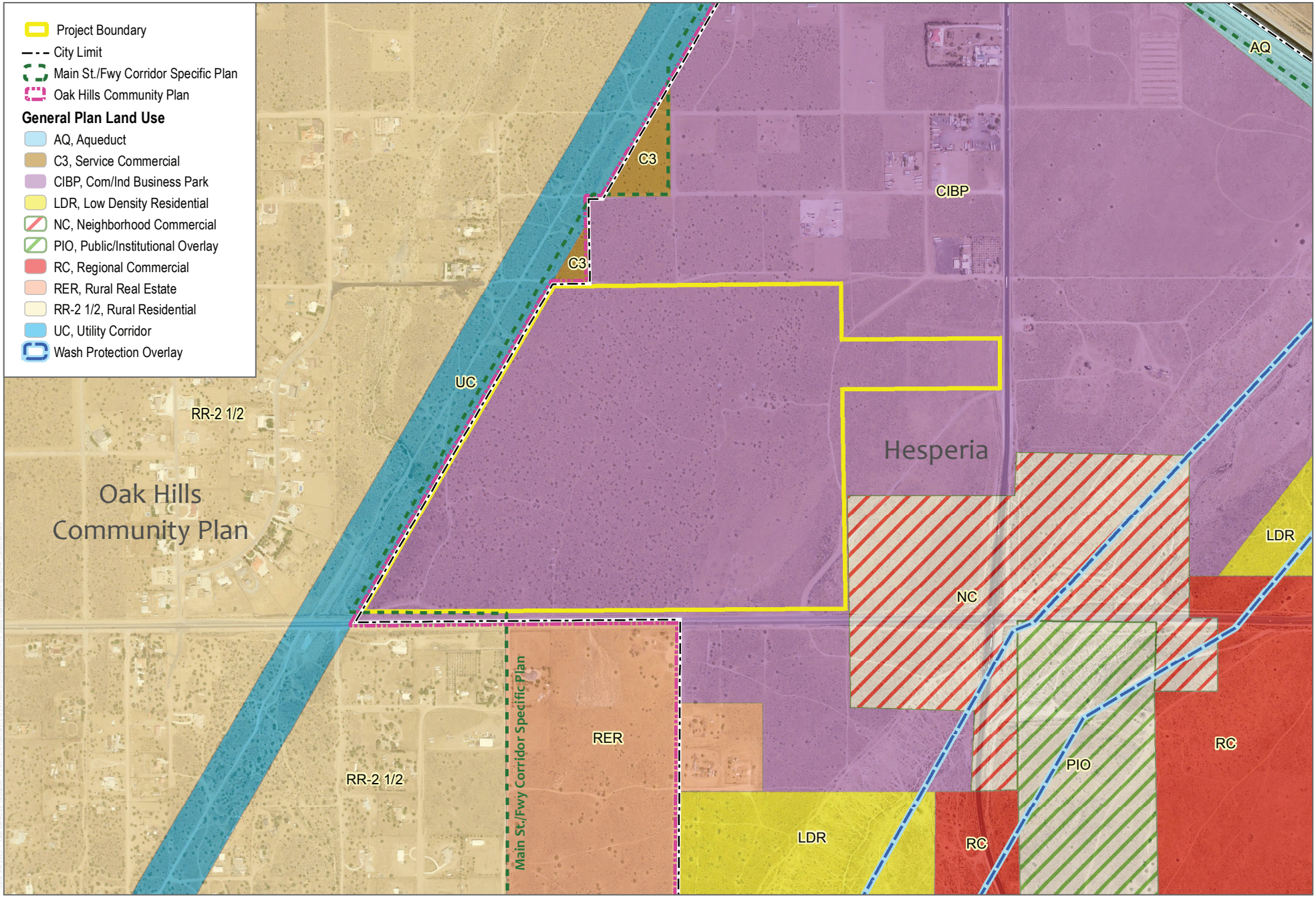

SOURCE: USDA NAIP 2016; City of Hesperia 2020

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Figure 3-4

Land Use Designations

Hesperia Commerce Center II

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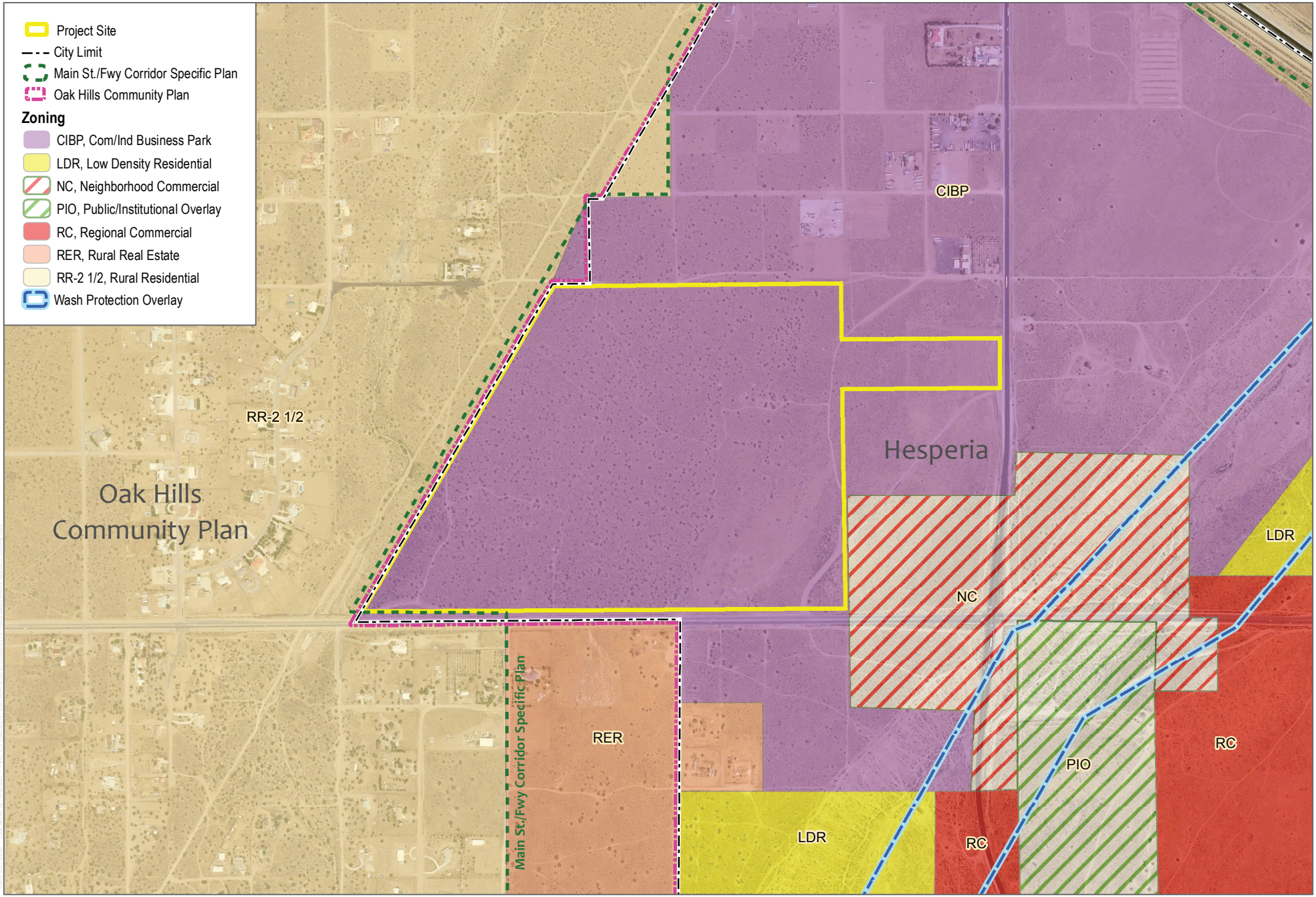

SOURCE: USDA NAIP 2016; City of Hesperia 2010

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Figure 3-5

Zoning

Hesperia Commerce Center II

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As provided by Section 15130(b) of the CEQA Guidelines, the following elements are necessary to an adequate discussion of cumulative impacts:

- Either: (A) a list of past, present, and reasonably anticipated future projects producing related or cumulative impacts, including those projects outside the control of the agency; or (B) a summary of projections contained in an adopted general plan or related planning document that is designed to evaluate regional or area wide conditions. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.
- A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available.
- A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable options for mitigating or avoiding any significant cumulative effects of the proposed projects.

For the analysis of cumulative impacts associated with the Project, a cumulative project list was developed through consultation with planning and engineering staff from the City of Hesperia during the traffic scoping process for the Traffic Impact Analysis prepared for the Project (Appendix K-1 of this Draft EIR) (the cumulative projects list is included as Table 4-4 of the Traffic Impact Analysis). This cumulative list is consistent with other traffic studies and environmental documents for recently approved projects in the City of Hesperia, and also includes additional cumulative projects from Hesperia and the County of San Bernardino in the vicinity of the study area.

3.3 Project Objectives

Purpose and Need

The High Desert/Victor Valley region has long been identified as an area having a low jobs-housing ratio (i.e., an area that has more potential workers living in a community than there are jobs for them),[2] resulting in high numbers of residents commuting out of the region for work. As recently as 2016, the City of Hesperia estimated that approximately 73% of workers residing in Hesperia commute out of the area to the Inland Empire cities and the broader Los Angeles region. While these conditions can be attributed to a number of factors, the most notable variable in the jobs-housing ratio is the lack of jobs growth in the region. From 2010 to 2015, the region's job growth rate was 7.0% compared to a population growth rate of 25.5%. A low job-housing ratio can result in both adverse environmental and economic effects on local communities. Long commute times result in increased traffic levels and air quality and greenhouse gas emissions, and out-of-region commuters often take a share of their purchasing power with them when they make purchases away from home.

Recognizing these trends, community leaders and officials have long sought to stimulate economic development within the High Desert region and provide residents with local employment opportunities. One strategy that community leaders and planners have employed in their efforts to balance the region's job-housing ratio is to attract development of warehousing and distribution centers which can provide hundreds of jobs per million square feet of development. Conventional and e-commerce retailers are continuing to embrace the strategy of creating and staffing large regional fulfillment centers, with the goal of quickly responding to online consumers. Because of its

[2] A jobs-housing ratio is a commonly used economic metric used to determine whether or not a community-or region-provides a sufficient number of jobs for its residents. The metric is calculated by finding the relationship between where people work ("jobs") and where they live ("housing"). As of 2016, the City had a jobs/housing ratio of 0.44, well off of regional targets ranging from 1.25-1.50 (City of Hesperia 2016).

available land and infrastructure for large logistics facilities, many companies are locating their regional operations to the High Desert area.

As such, the Project would help meet the needs of the growing logistics sector while producing new jobs in a region that is typically viewed as housing rich and jobs poor.

Project Objectives

Consistent with this purpose and need, the primary objectives sought by the Project are as follows:

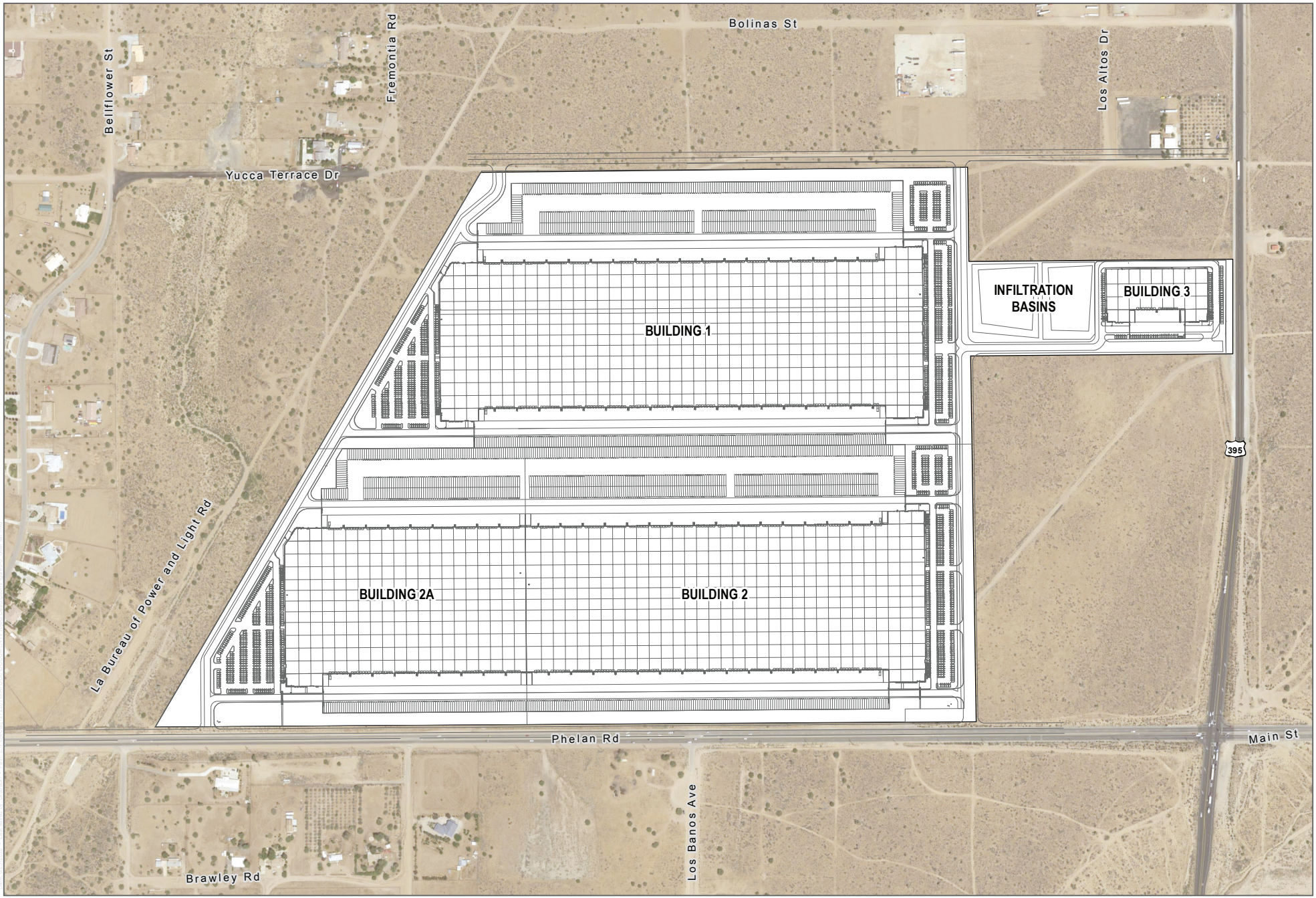
- **Objective 1:** Develop a jobs-producing and tax generating land use near transportation corridors within the housing-rich Victor Valley/High Desert region that is constructed to high standards of quality and provides diverse economic opportunities for those residing and wishing to invest within the City of Hesperia.
- **Objective 2:** Concentrate non-residential uses near existing roadways, highways, and freeways in an effort to isolate and reduce any potential environmental impacts related to truck traffic congestion, air emissions, and industrial noise to the greatest extent feasible.
- **Objective 3:** Develop a fiscally sound and employment generating land use that maximizes utilization of industrial zoned areas.
- **Objective 4:** Create a project that takes advantage of and enhances existing infrastructure, including the proximity to major regional roadways such as I-15 and U.S. Highway 395, railroad service corridors, and other similar infrastructure that will help promote the site and its use as an industrial business park development.
- **Objective 5:** Fulfill the existing and growing demand for logistics and warehouse uses in the region.

3.4 Project Characteristics

3.4.1 Project Operations

The Project would include construction of three industrial/warehouse buildings with associated office spaces, surface parking, and loading areas. The northwesternmost building (also referred to as "Building 1") would be 1,567,317 square feet, the southernmost building (also referred to as "Building 2") would be 2,065,987 square feet, which would potentially be divided between two spaces within the same building, and the northeasternmost building (also referred to as "Building 3") would be 112,125 square feet, for a total of 3,745,429 square feet (Figure 3-6, Site Plan).

Office space within each building would total up to 20,000 square feet. Depending on the number of future tenants, office areas may be distributed among four individual office spaces in the southwest and southeast corners of each building, or may be concentrated within one office in each building. The office space may or may not be distributed across second-level mezzanines.



SOURCE: USDA NAIP 2016; HPA Architects 2020

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FIGURE 3-6

Site Plan

Hesperia Commerce Center II

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The Project would support a variety of activities associated with the three industrial/warehouse buildings, including the ingressing and egressing of passenger vehicles and trucks, the loading and unloading of trucks with designated truck courts/loading areas, and the internal and external movement of materials around the Project site via forklifts, pallet jacks, yard hostlers, and similar equipment. In addition, the office space would support general internal office activities related to the industrial/warehouse uses.

At this time, no refrigeration is being proposed as part of the Project, and the Project applicant currently has no plans to lease to any tenant needing refrigerated space. Because an end user of the three buildings has not yet been identified, specific details regarding future operational activities on the Project site are not yet available. However, for the purposes of CEQA and to ensure full disclosure on all potential allowable uses on the Project site, this environmental impact assessment assumes development of a "blend" of industrial uses. Thus, the modeling assumptions used for the air quality, health risk assessment, greenhouse gas, energy, and traffic impact analyses summarized in subsequent chapters of this Draft EIR assume a blend of "high-cube" warehouse and general light industrial uses. Under this modeling scenario, approximately 65% of Buildings 1 and 2 (i.e., 2,361,648 square feet) would support "high-cube" warehouse uses, and 35% of Buildings 1 and 2 (i.e., 1,271,656 square feet), and 100% of Building 3 (112,125 square feet), would support general light industrial uses.

Architecture

The Project's design employs a variety of architectural strategies to create a contemporary, unified, and high quality industrial park environment. Building facades would feature a complementary neutral color palette and a variety of building materials, similar to other industrial development located throughout the City and region (Figures 3-7a through 3-7d, Architectural Elevations). The three buildings and associated improvements were designed with a strong and appropriately scaled architectural and landscape elements. Building elevations include vertical and horizontal elements that would break up the overall massing of the buildings.

The Project would feature a variety of trees, shrubs, plants, and land covers throughout the Project site to soften views of the Project site and to enhance the visual quality of the Project. A variety of development features would be provided through site design (e.g., building orientation, screening, and placement of service areas), architecture (e.g., mass, scale, form, style, material, and color), and streetscape elements (e.g., lighting and paving materials). The site plan also leans on existing natural and semi-natural land uses, such as Oro Grande Wash corridor and the Los Angeles Department of Water and Power Transmission corridor, to act as natural buffers between the Project site and surrounding residential areas.

In an effort to ensure that current and future development within the City is designed and constructed to conform to existing visual character and quality of the surrounding built environment, the City of Hesperia Development Code (Title 16 of the City's Municipal Code) includes design standards related to building size, height, floor area ratio, and setbacks, as well as landscaping, signage, and other development standards that have an effect on visual considerations. These design standards help adjacent land uses to be visually consistent with one another and their surroundings, and reduces the potential for aesthetic conflict. The design specifications of all development proposals submitted to the City are reviewed for compliance with all applicable provisions set forth by the Development Code, and in the case of the Project (because it is subject to the Specific Plan), the provisions of the Specific Plan. As part of the City's development review process, the Project's architectural plans are reviewed by City staff and the Planning Commission to determine whether Project design conforms to the Development Code and Specific Plan, and promotes the visual character and quality of the surrounding area.

Parking, Site Access, and On-Site and Off-Site Circulation Improvements

Single loaded truck bays would be located on the north and south sides of Buildings 1 and 2 and on the south side of Building 3. Building 1 would provide 253 loading docks, Building 2 would provide 346 loading docks, and Building 3 would provide 14 loading docks. Paved passenger vehicle parking areas would be provided along the eastern and western sides of each building, and truck/trailer parking would be provided in between, north, and south of Buildings 1 and 2. Gated entry is proposed at key dock access routes for each building. Gated areas would not be shared amongst buildings; an 8-foot tall wrought iron fence would separate contiguous trailer parking areas. In total, the Project site would include 1,763 stalls for trailers and 1,631 standard parking spaces for passenger vehicles and trailers.

Access to the Project site would be provided via four driveways:

- Driveway 1 on Phelan Road – 50-feet-wide, right-in/right-out (Passenger cars and trucks) driveway with stop sign
- Driveway 2 on Yucca Terrace Drive – 50-feet-wide, full access (Passenger cars and trucks) driveway with stop sign
- Driveway 3 on Yucca Terrace Drive – 50-feet-wide, full access (Passenger cars and trucks) driveway with stop sign
- Driveway 4 on Phelan Road – 60-feet-wide, full Access (Passenger cars and trucks) driveway and signalized intersection. This driveway would provide reciprocal access with a future development adjacent to the Project site

Driveway 3 and Driveway 4 will connect via a public street that would form an internal connection between Yucca Terrace Drive to the north and Phelan Road to the south. No driveway will be provided off U.S. Highway 395.

To facilitate adequate on-site circulation, sufficient site access for both passenger vehicles and trucks, and to ensure efficient off-site circulation on nearby roadway facilities, the Project would include off-site improvements that include street improvements along the frontage of the Project on Yucca Terrace, along Phelan Road and a portion of U.S. Highway 395 (Figure 3-8, Conceptual Vehicular Circulation and Access Plan). In addition, the Traffic Impact Analysis prepared for the Project (Appendix K-1) identifies several additional on- and off-site improvements that the Project will incorporate into site design, construct prior to Project implementation, or pay its fair share cost to fund future implementation of the required improvement. A list of these improvements is provided on Table 1-3 of the Traffic Impact Analysis (Appendix K-1).



BUILDING 1 - NORTH ELEVATION



BUILDING 1 - NORTH ELEVATION CONTINUE



WEST ELEVATION



BUILDING 1 - SOUTH ELEVATION



BUILDING 1 - SOUTH ELEVATION CONTINUE



EAST ELEVATION

SOURCE: HPA Architetecture 2020

FIGURE 3-7a

Architectural Elevations

Hesperia Commerce Center II

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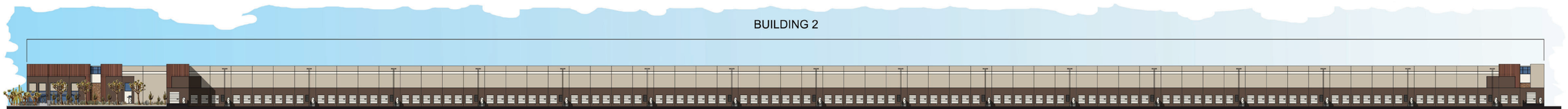
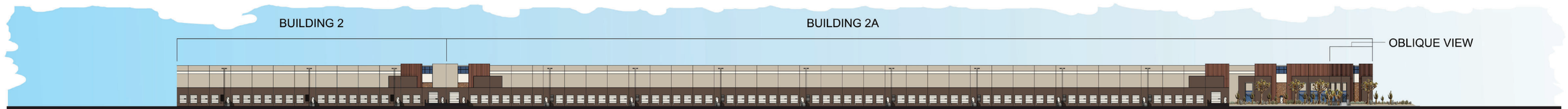
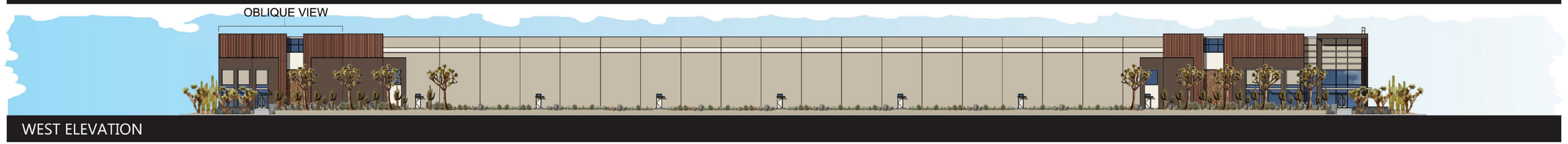


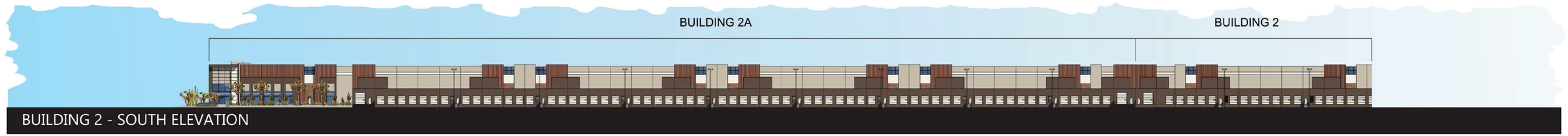
BUILDING 2 - NORTH ELEVATION



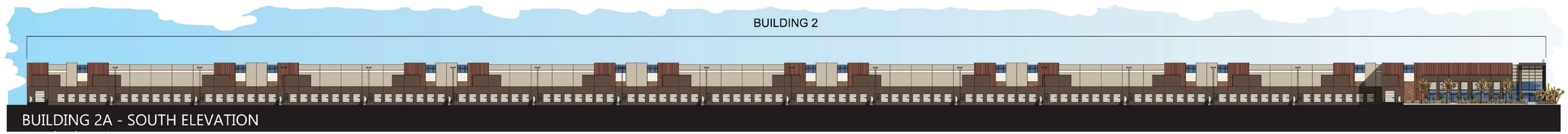
BUILDING 2A - NORTH ELEVATION



WEST ELEVATION



BUILDING 2 - SOUTH ELEVATION



BUILDING 2A - SOUTH ELEVATION



EAST ELEVATION

SOURCE: HPA Architetecture 2020

FIGURE 3-7b

Architectural Elevations

Hesperia Commerce Center II

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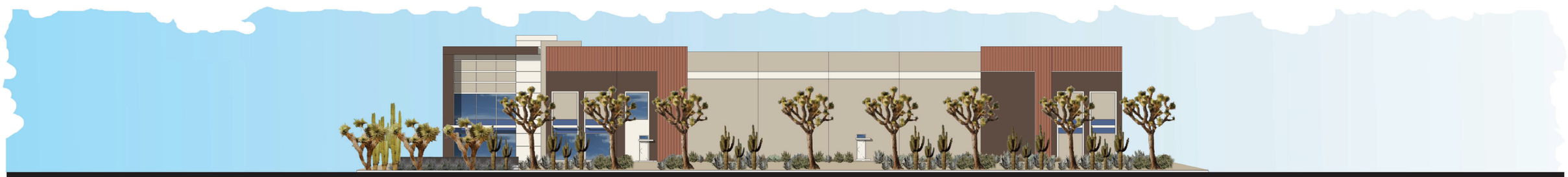
BUILDING 3 - NORTH ELEVATION



BUILDING 3 - WEST ELEVATION



BUILDING 3 - SOUTH ELEVATION



BUILDING 3 - EAST ELEVATION

SOURCE: HPA Architetecture 2020

FIGURE 3-7c

Architectural Elevations

Hesperia Commerce Center II

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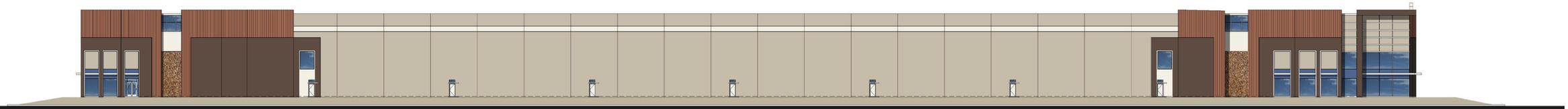


WEST ELEVATION



EAST ELEVATION

1 SHERWIN-WILLIAMS SW 7566 WESTHIGHLAND WHITE

2 SHERWIN-WILLIAMS SW 9173 SHIITAKE

3 SHERWIN-WILLIAMS SW 2808 ROOKWOOD DARK BROWN

4 SHERWIN-WILLIAMS SW 7701 CAVERN CLAY WITH FORMLINER

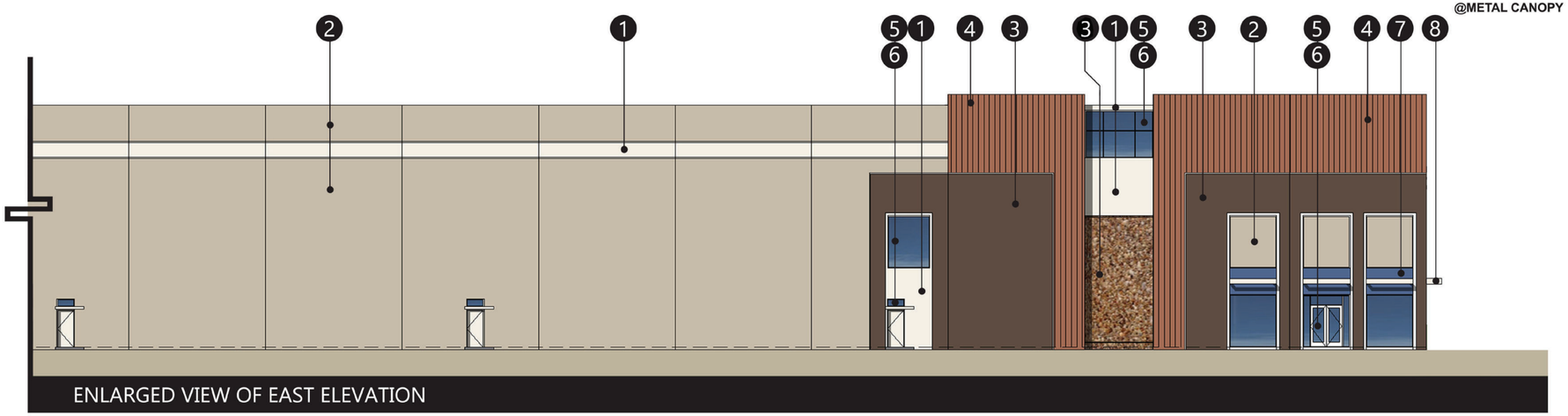
5 SANDBLASTED CONCRETE

6 CLEAR ANODIZED MULLIONS

7 BLUE REFLECTIVE GLAZING

8 -

9 SHERWIN-WILLIAMS ACRYLIC LATEX SYSTEMS HIGH GLOSS/HIGH PERFORMANCE IN COLOR: SW 7566 WESTHIGHLAND WHITE @METAL CANOPY



ENLARGED VIEW OF EAST ELEVATION

SOURCE: HPA Architetecture 2020

FIGURE 3-7d

Architectural Elevations

Hesperia Commerce Center II

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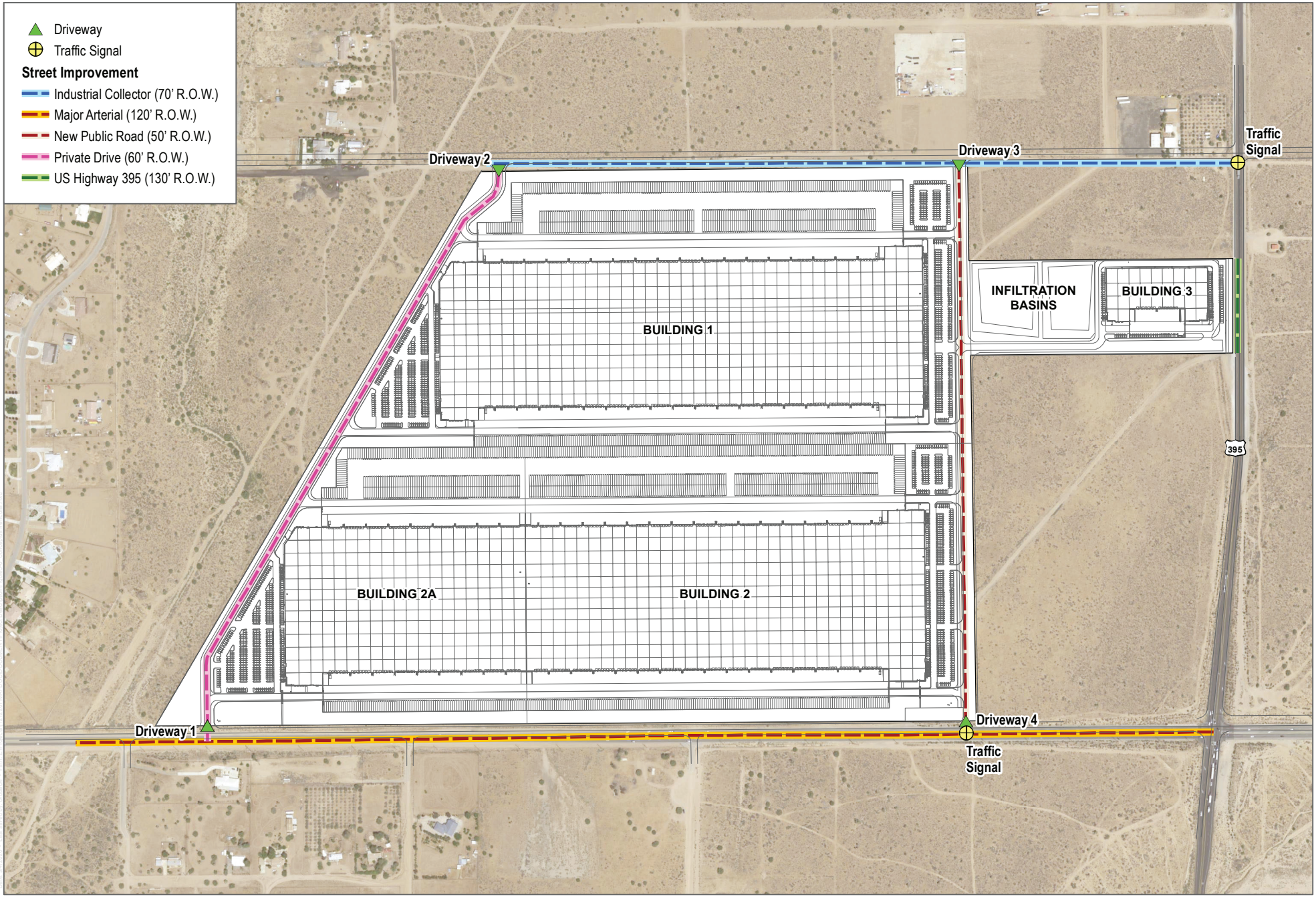

SOURCE: USDA NAIP 2016; HPA Architects 2020; Westland Group 2020

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0 300 600 Feet

FIGURE 3-8

Conceptual Vehicular Circulation and Access Plan

Hesperia Commerce Center II

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Stormwater Drainage, Sanitary Sewer, and Water Utilities

A new engineered stormwater drainage system would be constructed on the Project site to collect and treat on-site stormwater (Figure 3-9, Conceptual Stormwater Management Plan). Post-development, a majority of stormwater from the Project site would drain into two below-grade, open, earthen infiltration basins within the northeastern portion of the Project site. Stormwater flows would be conveyed via sheet flows away from buildings and where possible, through below-grade, landscaped areas prior to entering the nearest catch basin and subsequently being conveyed to the two earthen detention basins. The landscaped areas would act as the first filter for detaining suspended solids in stormwater flows. The detention basins would be planted with native grasses and erosion control vegetation along their side banks. Concrete forebays or riprap would accumulate a majority of the trash and sediment within the stormwater prior to entering the earthen basins.

The Project and its new stormwater drainage system would be required to capture and treat all on-site stormwater generated by design storm events, as defined by both the City of Hesperia and County of San Bernardino. Stormwater from actual storm events that exceed these design storm events would be permitted to flow into the Oro Grande Wash by means of a 96-inch-diameter storm drain pipe. This new storm drain alignment would exit the Project site in an easterly direction, traversing along Yucca Terrace Drive to the east, crossing under U.S. Highway 395 and continuing approximately 2,200 feet along Yucca Terrace Drive, before turning in a 45° angle to the southeast and extending roughly 175 feet before outletting into the bank of the wash (herein referred to as the Off-Site Storm Drain Alignment). The Oro Grande Wash is a regional storm drain facility that is part of the City of Hesperia's Master Plan of Drainage, is located in the Project's off-site improvement area. The wash has an earthen bottom and is routinely maintained by the San Bernardino County Flood Control District. This flood control channel flows for approximately 9 miles to the north and northeast of the Project site, recharging the underlying groundwater basin (Upper Mojave River Valley Basin) before eventually draining into the Mojave River.

Sanitary sewer service would be provided via a new connection with a new 12-inch-diameter sewer line located within an easement held by the City of Hesperia to master-planned sewer facilities in the City of Hesperia (Figure 3-10, Conceptual Sanitary Sewer Plan). Similar to new storm drain line, the new sewer alignment would exit the Project site in an easterly direction, traversing along Yucca Terrace Drive to the east, crossing under U.S. Highway 395 and continuing approximately 2,200 feet along Yucca Terrace Drive, before turning in a 45° angle to the southeast and extending roughly 1,100 feet across the wash (herein referred to as the Off-Site Sewer Alignment). Within the Oro Grande Wash, the sewer line will be located under the existing grade of the wash and installed via jack-and-bore techniques in order to avoid the jurisdictional limits of the ephemeral watercourse.

Domestic, irrigation, and fire protection water services would be made via new connections to existing Hesperia Water District Company facilities located on the north side of the Project site. Existing 6-inch-diameter, 8-inch-diameter, and 12-inch-diameter water lines are located within U.S. Highway 395, Phelan Road, and the portions of Yucca Terrace Road immediately northwest of the Project site. Certain segments of these existing water lines will need to be upsized as a result of the Project. In addition, a new 12-inch-diameter water line will installed within the remaining part of Yucca Terrace Road that is not currently served by water, as well as along the western Project boundary (Figure 3-11, Conceptual Water Plan).

A new 16-inch-diameter transmission water pipeline will also be installed to provide adequate water service for the Project. This new 16-inch-diameter transmission water pipeline will begin at the intersection of U.S. Highway 395 and Sultana Street and traverse west along Sultana Street crossing the Oro Grande Wash to Los Banos Avenue. From there it will traverse north and connect to a new 12-inch–diameter water main along Phelan Road (herein referred to as the Off-Site Water Alignment).

Because the new 16-inch-diameter transmission water pipeline will travel across the Oro Grande Wash and traditional trenching pipe installations will not be feasible, this new water pipeline be installed using the jack and bore method as not to disturb the wash. This will be similar to the installation method of the proposed 12-inch diameter sewer main that will also be installed across the Oro Grande Wash, as discussed above. A pit will be constructed at each end of the wash and the pipe will be bored through from one pit to the other without disturbing the ground surface.

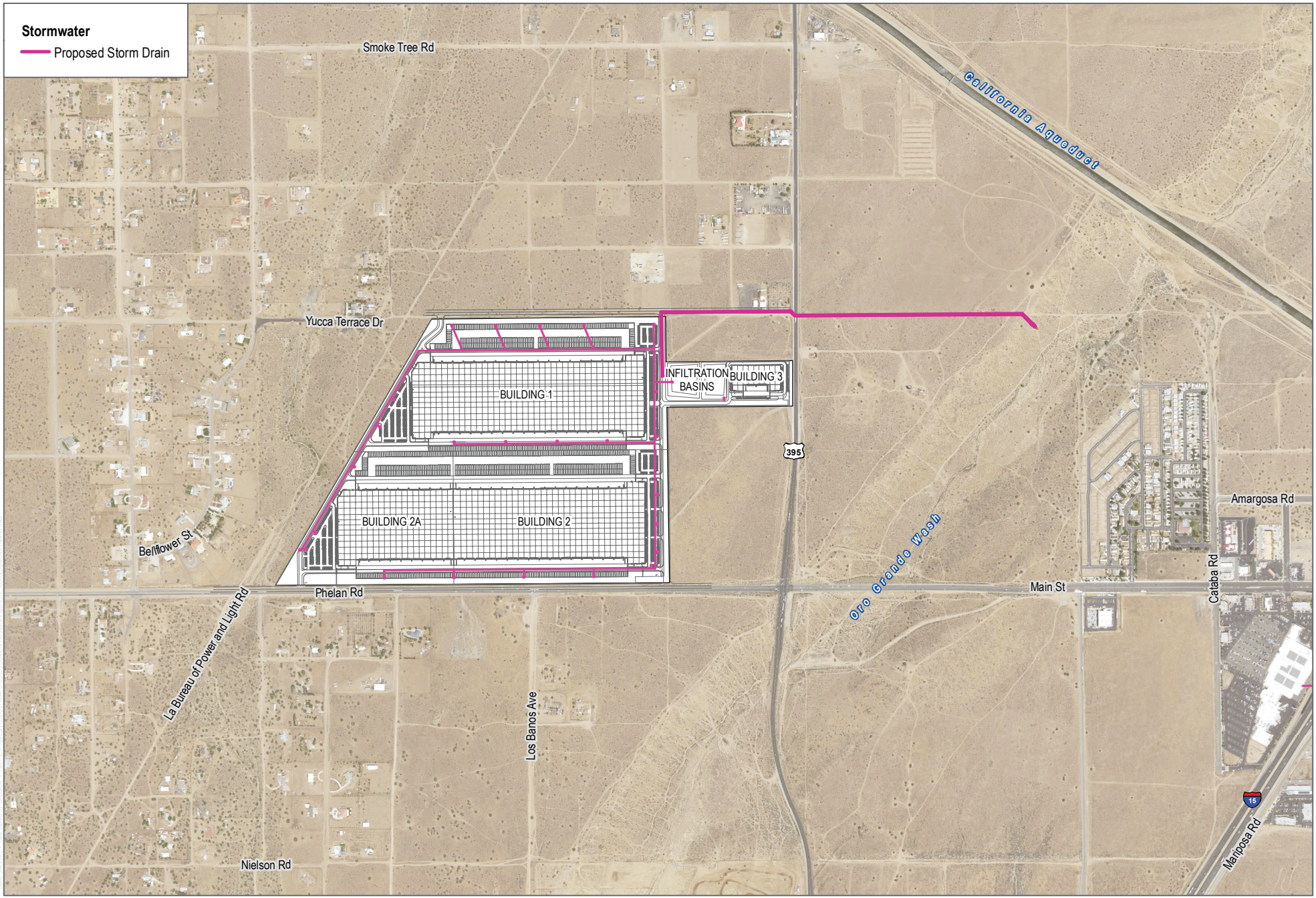
Collectively, the Off-Site Storm Drain Alignment, the Off-Site Sewer Alignment, and the Off-Site Water Alignment will herein be referred to as the Off-Site Utilities Alignments (Figure 3-12, Off-Site Utilities Alignments).

Development Agreement

A Development Agreement is contemplated as part of the Project approvals. The Development Agreement does not contemplate any additional physical improvements, other than those already identified within the Project description, analysis and proposed mitigation for the Project. Its effect and intent is to provide sufficient time for the development of the Project by locking in development standards and extending applicable vesting periods for the Project's entitlements.

3.4.2 Project Construction

Construction is expected to commence in 2021 and would last through 2023. The duration of construction activity was estimated based on consultation with the Project applicant and past project experience. The construction schedule used in the analysis, shown in Table 4.2-5 in Section 4.2, Air Quality, of this Draft EIR, represents a conservative analysis should construction occur any time after the respective dates, since emissions factors for construction decrease as the analysis year increases due to emissions regulations becoming more stringent. A detailed summary of construction, shown in Table 4.2-6 in Section 4.2, was also estimated based on consultation with the Project applicant and previous project experience. The Project-specific construction fleet may vary due to specific Project needs at the time of construction. The duration of construction activity and associated equipment represent a reasonable approximation of the expected construction fleet as required per the CEQA Guidelines. Refer to specific detailed modeling inputs/outputs provided in the Air Quality Impact Analysis (Appendix C-1).



SOURCE: USDA NAIP 2016; HPA Architects 2020; Westland Group 2020

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FIGURE 3-9

Conceptual Stormwater Management Plan

Hesperia Commerce Center II

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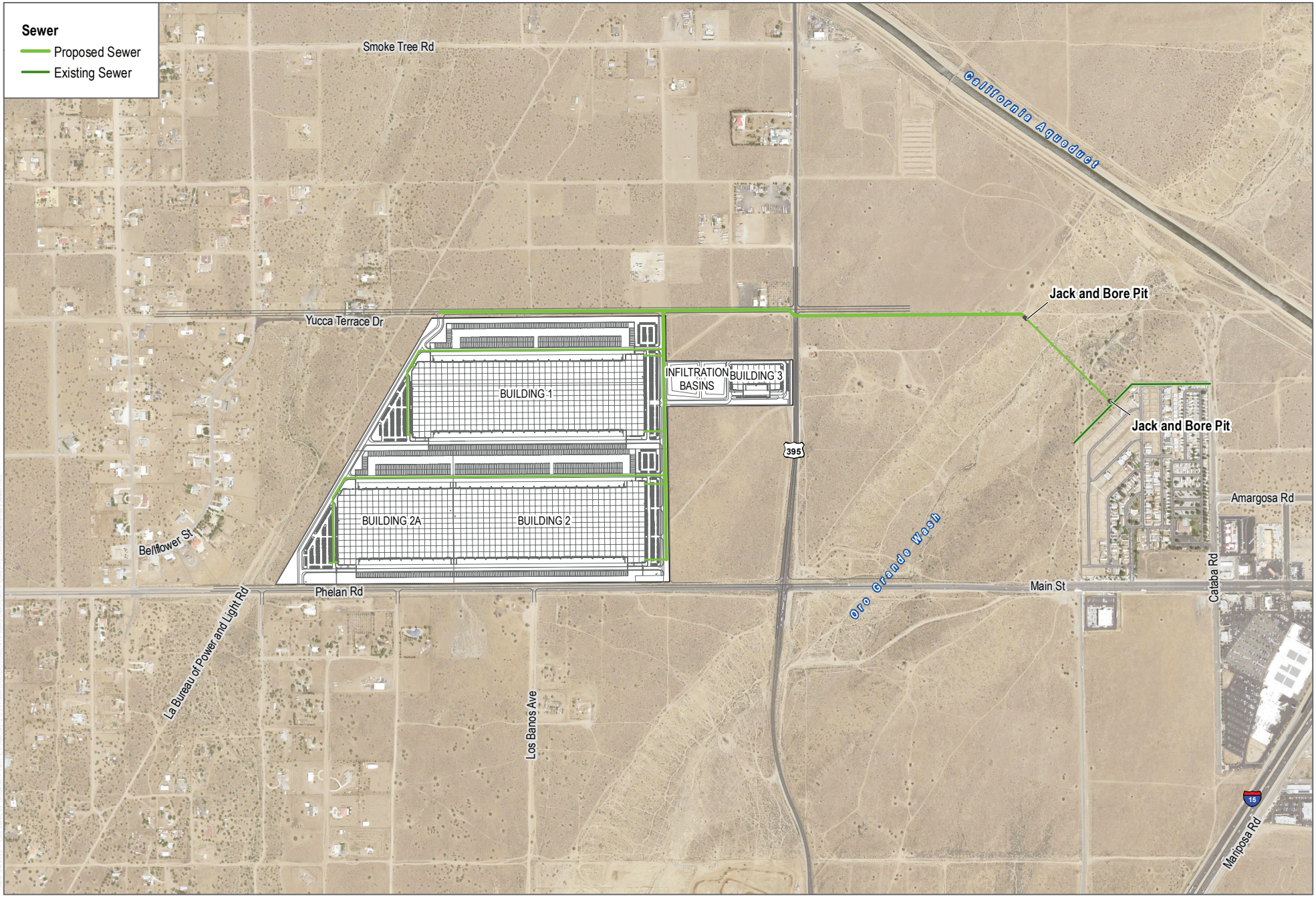

SOURCE: USDA NAIP 2016; HPA Architects 2020; Westland Group 2020

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FIGURE 3-10

Conceptual Sanitary Sewer Plan

Hesperia Commerce Center II

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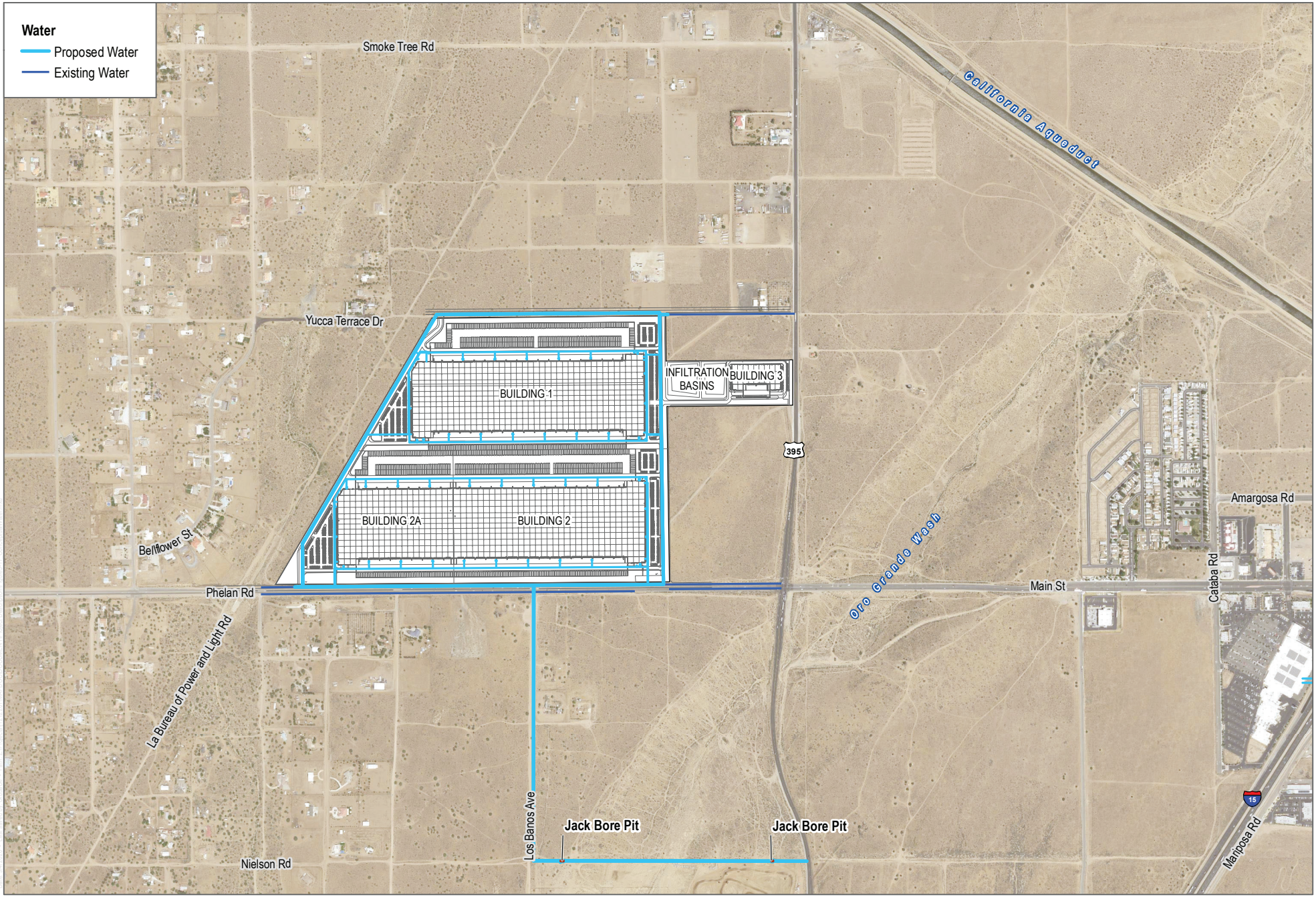

SOURCE: USDA NAIP 2016; HPA Architects 2020; Westland Group 2020

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FIGURE 3-11

Conceptual Water Plan

Hesperia Commerce Center II

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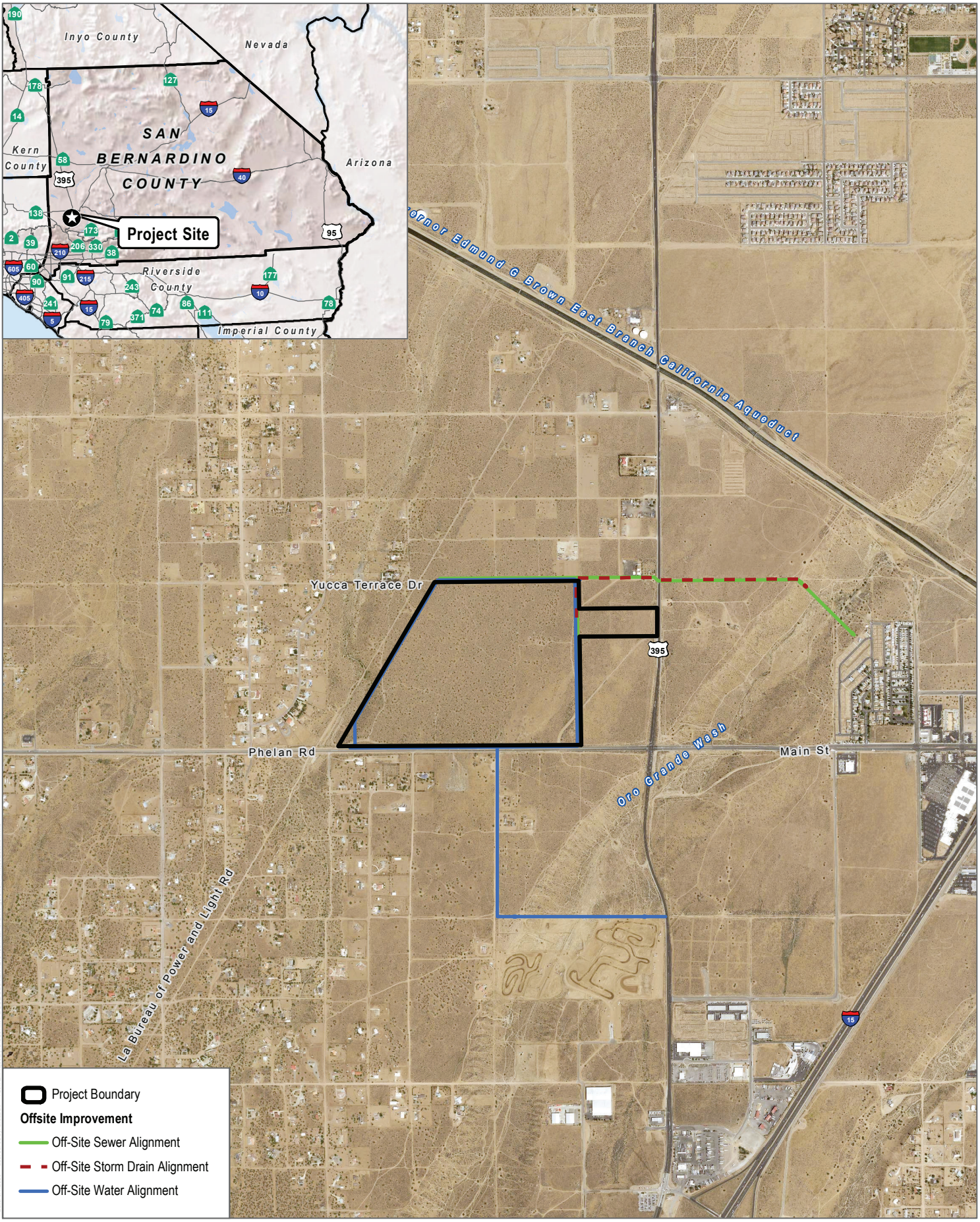

SOURCE: USDA 2016

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0 1,000 2,000 Feet

Figure 3-12

Off-Site Utilities Alignments

Hesperia Commerce Center II

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3.5 Standard Requirements and Conditions of Approval

The Project has been reviewed in detail by City staff. Various City departments and divisions are responsible for reviewing land use applications for compliance with City codes and regulations. These departments and divisions were also responsible for reviewing this Draft EIR for technical accuracy and compliance with CEQA. The following City departments and divisions were responsible for technical review:

- City of Hesperia, Development Review Committee
- City of Hesperia, Planning Division
- City of Hesperia, Building and Safety Division
- City of Hesperia, Public Works Division
- City of Hesperia, Engineering Department
- San Bernardino County Fire Department

This review of the Project by the City departments and divisions listed above resulted in a comprehensive set of draft Conditions of Approval that will be available for public review prior to consideration of the Project by the Hesperia Planning Commission and Hesperia City Council. These conditions will be considered by the Planning Commission and City Council in conjunction with its consideration of the Project. If approved, the Project will be required to comply with all imposed Conditions of Approval.

Where applicable, Conditions of Approval and other applicable regulations, codes, and requirements to which the Project is required to comply and that result in the reduction or avoidance of an environmental impact are specified in each subsection of Chapter 4, Environmental Analysis, of this Draft EIR. In addition, the Project is required by state law to comply with the California Building Standards Code and its CALGreen component (Title 24), which includes mandatory building standards aimed at reducing energy use.

3.6 Requested Actions

The City has primary approval responsibility for the Project. As such, the City is serving as the lead agency for this Draft EIR, pursuant to CEQA Guidelines Section 15050. According to Section 16.12.005 of the Hesperia Municipal Code, the Hesperia Development Review Committee is the reviewing body with the responsibility to review design of the Project and make a recommendation to the Planning Commission. According to Section 16.12.085 of the Hesperia Municipal Code, the Planning Commission is authorized to approve or deny applications for design review and to impose conditions upon such approval. According to Section 16.12.085 of the Hesperia Municipal Code, the City Council is authorized to enter into Development Agreements.

The following discretionary and ministerial actions under the jurisdiction of either the City of Hesperia or a responsible or trustee agency would be required. This Draft EIR covers all federal, state, and local government and quasi-government approvals that may be needed to implement the Project, whether or not they are explicitly listed herein or elsewhere in this Draft EIR (14 CCR 15124[d]).

Discretionary Approvals

Development Review Committee

- ***Administrative Review.*** An administrative review by the Development Review Committee (DRC) is held in order to review the Project. Such review will yield a recommendation and/or ruling by City administrative staff.

Planning Commission

- ***Project Review.*** A review by the Planning Commission is held in order to review the Project, including all requested entitlements. Such review will yield a recommendation to the City Council.
- ***Recommendation Certification of Environmental Impact Report.*** The Planning Commission will review the Draft EIR and make a recommendation to the City Council to certify or reject this Draft EIR, along with appropriate CEQA Findings and the Mitigation Monitoring and Reporting Program.

City Council

- ***Conditional Use Permit.*** Project implementation would require approval of a Conditional Use Permit (CUP 19-00010) by the Planning Commission. The Main Street and Freeway Corridor Specific Plan requires review and approval of a Conditional Use Permit for warehousing and wholesale distribution centers over 200,000 square feet located in the Main Street/I-15 District of the Specific Plan. The Project includes more than 200,000 square feet of total building area, and thus, falls under this category.
- ***Tentative Parcel Map.*** Project implementation would require processing of a Tentative Parcel Map (TPM 20257), to reorganize the Project site from four parcels (Assessor Parcel Numbers 3064-391-01, 3064-401-02, 3064-361-01, and 3064-351-03) into three parcel. Covenants, Conditions, and Restrictions will be recorded with the parcel map to establish the basis for the ownership of individual buildings within three parcels and the operation and maintenance of the common on-site improvements.
- ***Certification of Environmental Impact Report.*** Certify or reject this Draft EIR, along with appropriate CEQA Findings and the Mitigation Monitoring and Reporting Program.
- ***Development Agreement.*** Approve a Development Agreement between the City and the Project Applicant pursuant to Section 16.12.085 of the Hesperia Municipal Code.

Ministerial Approvals

City of Hesperia Subsequent Implementing Approvals

- Approvals for water, sewer, and storm drain infrastructure
- Remove and relocate on-site protected native desert plants
- Issue grading permits
- Issue building permits
- Issue encroachment permits

3.7 References

City of Hesperia 2010.*Hesperia General Plan Update*. https://www.cityofhesperia.us/DocumentCenter/View/15728/General-Plan-Update-August-2019

City of Hesperia. 2016. *High Desert Workforce Report*. April 4, 2016. Accessed December 17, 2019. https://www.cityofhesperia.us/DocumentCenter/View/13786/HD-Workforce-Report-April-2016?bidId=.

City of Hesperia. 2020. *Main Street and Freeway Corridor Specific Plan.* https://www.cityofhesperia.us/DocumentCenter/View/15940/MSFCSP-update.

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4 Environmental Analysis

The purpose of this Draft Environmental Impact Report (EIR) is to evaluate the potential environmental effects of the Hesperia Commerce Center II Project (Project). The City of Hesperia (City) circulated a Notice of Preparation (NOP) beginning on November 21, 2019, with the public review period ending on December 20, 2019. The NOP was transmitted to the State Clearinghouse, responsible agencies, other affected agencies, and other public and private potential stakeholders to solicit feedback regarding the scope of the environmental analysis to be addressed in the Project's Draft EIR. The NOP, Initial Study, and comment letters received are contained in Appendix A of this Draft EIR.

Sections 4.1 through 4.11 of this Draft EIR contain the potential environmental impacts analysis associated with implementation of the Project, and focus on the following issues:

- Section 4.1 – Aesthetics
- Section 4.2 – Air Quality
- Section 4.3 – Biological Resources
- Section 4.4 – Cultural, Tribal Cultural, and Paleontological Resources
- Section 4.5 – Energy
- Section 4.6 – Greenhouse Gas Emissions
- Section 4.7 – Hazards, Hazardous Materials, and Wildfire
- Section 4.8 – Hydrology and Water Quality
- Section 4.9 – Noise
- Section 4.10 – Transportation
- Section 4.11 – Utilities and Service Systems

Technical Studies

Technical studies were prepared to analyze air quality and greenhouse gas emissions, health risks, biological resources, cultural resources, energy consumption, hazards and hazardous materials, hydrology and water quality, noise, traffic, and water supply impacts, and were used in the preparation of this Draft EIR. These documents are identified in the discussions for the individual environmental issues, and are included as technical appendices on a CD attached to the Draft EIR and available at the City.

Analysis Format

The Draft EIR assesses how the Project would impact each of the above-listed resource areas. Each environmental issue addressed in this Draft EIR is presented in terms of the following subsections:

- **Existing Conditions:** Provides information describing the existing setting on and/or surrounding the Project site that may be subject to change as a result of implementation of the Project. This setting discussion describes the conditions that existed when the NOP was sent to responsible agencies and the State Clearinghouse.
- **Relevant Regulations, Plans, Policies, and Ordinances:** Provides a discussion of federal, state, regional, and local regulations, plans, policies, and ordinances applicable to the Project.

- **Thresholds of Significance:** Provides criteria for determining the significance of Project impacts for each environmental issue.
- **Impact Analysis:** Provides a discussion of the characteristics of the Project that may have an impact on the environment, analyzes the nature and extent to which the Project is expected to change the existing environment, and indicates whether the Project's impacts would meet or exceed the levels of significance thresholds.
- **Mitigation Measures and Level of Significance After Mitigation:** Identifies mitigation measures to reduce significant adverse impacts to the extent feasible and provides a discussion of significant adverse environmental impacts that cannot be feasibly mitigated or avoided, significant adverse environmental impacts that can be feasibly mitigated or avoided, adverse environmental impacts that are not significant, and beneficial impacts.
- **References Cited:** Lists the sources cited during preparation of the Draft EIR.

4.1 Aesthetics

This section describes the existing visual conditions of the Hesperia Commerce Center II Project (Project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the Project.

In addition to the documents incorporated by reference (see Section 2.7 of Chapter 2 of this Environmental Impact Report [EIR]), the following analysis is based, in part, on the following source:

- *Site Lighting Plan* prepared by Gregg Electric Inc. in January 2020 (Appendix B)

4.1.1 Existing Conditions

Regional Setting

The Project site is located in the eastern part of the City of Hesperia (City) in the Victor Valley/High Desert region of San Bernardino County (County). The region contains open space with a variety of topographical features and vegetation communities, including the Mojave River to the east, San Bernardino Mountains and San Gabriel to the south/southwest, rolling foothills, and the surrounding desert landscape within the Victor Valley. Surrounding mountains and ridgelines are the most prominent features of the landscape. Other features that shape the visual environment and provide both physical and visual relief include the natural desert terrain that spreads across the flat valley floor, natural vegetation, natural drainage patterns and watercourses (i.e., Mojave River, Oro Grande Wash, Antelope Valley Wash, Honda Valley Wash and an unnamed Wash east of Interstate [I] 15) and surrounding open space, habitat areas and recreation areas.

The topography of the City includes many areas that contain bluffs with scenic value, including the area north of the Burlington, Northern, and Santa Fe railroad from Highway 138 running northeast along the edge of the Mesa to the Hesperia Airport. Ridgelines are concentrated in the Rancho Las Flores area in the southeastern portion of the City near the entrance to the Cajon Pass.

Project Setting

The Project setting was researched and documented via review of aerial imagery and a site visit conducted in September 2019. A photo-survey was conducted during the September 2019 site visit to document the existing visual environment and inform the discussion herein. Photos included in this report were taken from the locations identified in Figure 4.1-1, Key View Map - Existing Conditions and Visual Simulation Photo Locations. Figures 4.1-2a–b, Existing Conditions, and Figures 4.1-3, Visual Simulation - KOP 1, and 4.1-4, Visual Simulation - KOP 2, (Existing Conditions images only) depict images of the existing visual environment and the Project setting.

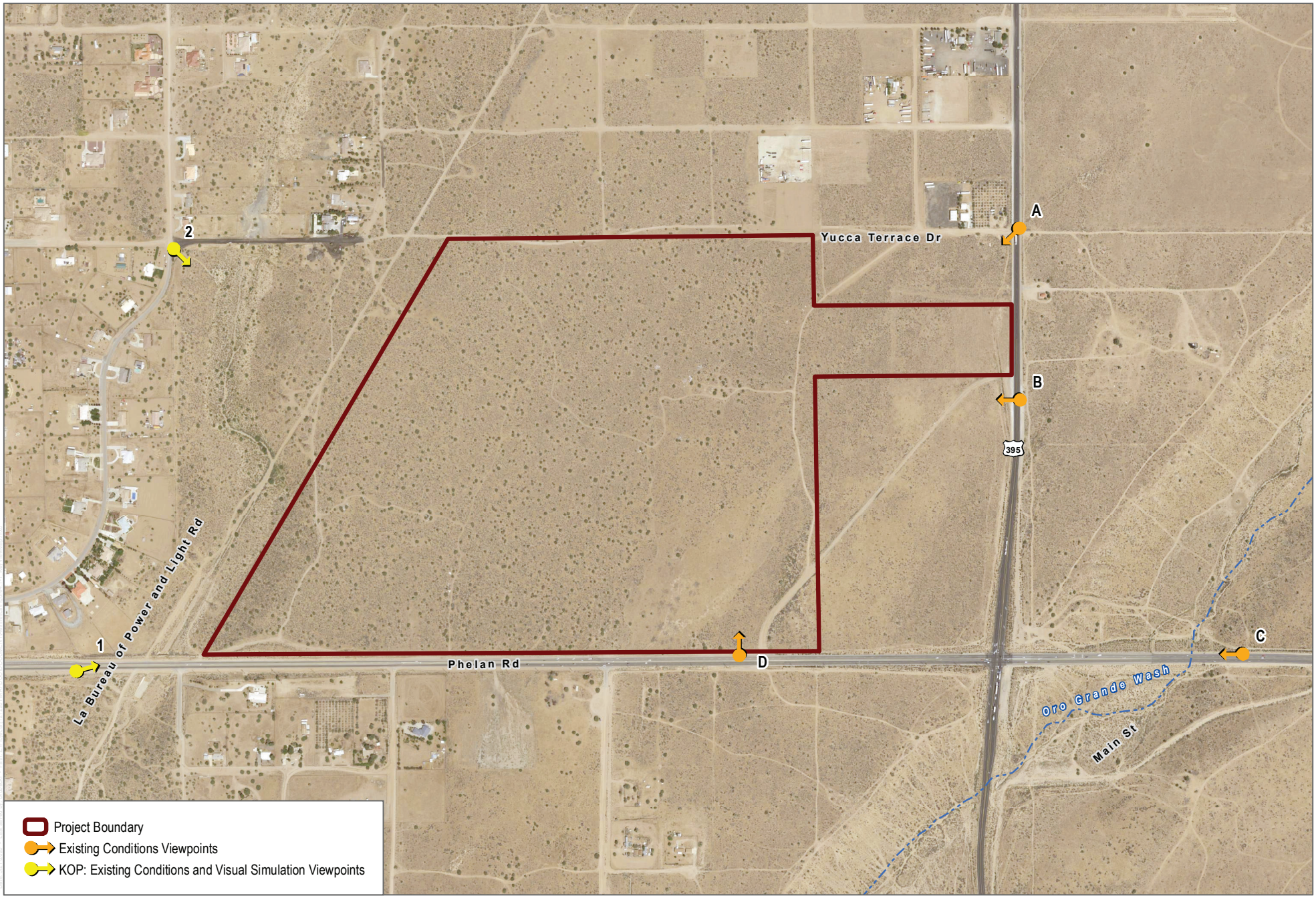
The Project site is located in the eastern portion of the City, which is an area that has historically been used as a transportation corridor connecting areas south of the Cajon Pass to destinations north of the City. U.S. Highway 395 and I-15 are the two major highways that currently compose this transportation corridor. U.S. Highway 395 is located immediately adjacent to the Project site's eastern boundary and the U.S. Highway 395/I-15 interchange is located approximately 2 miles south of the Project site. Although the majority of this area is undeveloped, transportation-related and trucking-related land uses (e.g., truck yards, convenience stations, and warehouses) associated with these highways are periodically located along highway frontages and are interspersed by parcels of undeveloped

land. East and west of this transportation corridor are the Oak Hills area and Main Street area, which generally contain less intensive land uses than the area immediately adjacent to U.S. Highway 395 and I-15. The Oak Hills area located west of the Project site is characterized by rural residential uses. Similar to the area surrounding the Project site, the majority of this area is undeveloped, although several tracts of large lot residences are located throughout this area in a diffuse pattern. The Main Street area east of the Project site is characterized by patterns of development that include suburban tract residences and suburban commercial developments.

More specifically, the irregularly shaped Project site consists of approximately 194.8-acres of vacant and undeveloped, relatively flat land characterized by desert landscape consisting of exposed soils, moderate vegetation cover composed of brush, shrub and grass cover as well as scattered large Joshua trees and Juniper (see Figure 4.1-2a, Existing Conditions). The Project site has been disturbed by illegal dumping (resulting in several debris piles throughout the site) and trespassing (see Figure 4.1-2b, Existing Conditions [Photo D]). Various dirt roads and trails that appear well-traveled by motorized off-road vehicles form bands of exposed, bare soils that traverse the site. The site is relatively flat, with the exception of the southwestern portion of the site that slopes moderately downward into an adjacent sandy-bottomed wash/drainage feature within the Los Angeles Bureau of Power and Light Road and utility corridor that parallels the southwestern Project boundary. The site is bound by Yucca Terrace Drive to the north, U.S. Highway 395 to the east, Phelan Road to the south, and Los Angeles Bureau Power and Light Road to the west. Surrounding land uses and elements that form the visual environment in the Project area are described as follows.

North: Yucca Terrace Drive is a narrow dirt road extending east-west along the northern Project boundary. A wooden t-pole transmission line runs parallel to Yucca Terrace Drive. Flat desert terrain similar in vegetation cover to the Project site stretches to the north throughout the wide valley floor north of Yucca Terrace Drive, with the exception of sparsely scattered commercial, light industrial, and rural residential uses. Occasional single-story rural residential buildings and semi-truck staging and parking areas are visible from Yucca Terrace Drive and the northern portion of the Project site. Topographical variations, formed by distant peaks and mountains, are visible on the horizon from portions of the northern Project boundary, but are partially screened by intervening vegetation and land uses.

South: Phelan Road is a four-lane road with a center turn lane that runs east-west, parallel to the southern Project boundary. A dirt road (Caliente Road) extends north from Phelan Road and curves diagonally across the southeastern corner of the Project site and into the vacant land to the east. A wood pole transmission line and a narrow dirt road run parallel to the southern side of Phelan Road, and desert landscape similar in appearance to the Project site extends to the south as the valley floor stretches to Victor Valley. The area contains occasional large-lot rural residences, which are primarily screened from view by vegetation (both natural and landscaped). Along the southwestern portion of the Project site, for a distance of approximately 0.2-mile, Phelan Road dips approximately 20 feet lower in elevation than the surrounding land as the road approaches and crosses through the wash/drainage area. During this short section of Phelan Road, the road if flanked by naturally vegetated slopes and views into the wash/drainage area to the north and south as the terrain lowers in elevation. The San Bernardino and San Gabriel Mountains are visible in the distance to the south, southeast and southwest, forming a backdrop to the expansive valley floor.



SOURCE: USDA 2016

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0 400 800 Feet

FIGURE 4.1-1

Key View Map - Existing Conditions and Visual Simulation Photo Locations

Hesperia Commerce Center II

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Photo A: View from Highway 395 looking southwest toward the Project site and an adjacent residence, approximately 475 feet north of the easternmost portion of the Project site.



Photo B: View looking west toward the Project site from Highway 395, approximately 165 feet southeast of the easternmost portion of the Project site.

SOURCE: Dudek

FIGURE 4.1-2a

Existing Conditions

Hesperia Commerce Center II

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Photo C: View looking west along Main Street/Phelan Road from approximately 0.5-mile east of the Project site, adjacent to a nearby residential development.



Photo D: View looking north toward the Project site from Phelan Road, along the southern Project boundary

SOURCE: Dudek

FIGURE 4.1-2b

Existing Conditions

Hesperia Commerce Center II

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Existing Conditions: View from Phelan Road looking northeast toward the Project Site from approximately 0.15-mile to the southwest.



Visual Simulation: Proposed Conditions

SOURCE: Dudek, HPA Architects

FIGURE 4.1-3

Visual Simulation - KOP 1

Hesperia Commerce Center II

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East: The eastern Project boundary extends north-south approximately 0.25-mile west of U.S. Highway 395, with the exception of an approximately 450-foot wide rectangular portion of the site, which stretches east abutting U.S. Highway 395. Vacant land lies between the Project site and U.S. Highway 395 (with the exception of the 450-foot wide rectangular portion that abuts the highway), consisting of similar desert landscape, vegetation and ground disturbance as the Project site. The dirt road (Caliente Road) that cuts through the southeastern corner of the Project site continues diagonally through the vacant land in the northwestern quadrant of Phelan Road and U.S. Highway 395. A wooden t-pole transmission line runs parallel to U.S. Highway 395, and additional transmission lines are visible across the flat desert landscape that extends to the east. Small structures and signs of development, such as a row of residences, dot the landscape to the east, and the silhouette of distant mountains create a backdrop to the valley floor.

West: A dirt road (Los Angeles Bureau of Power and Light Road) and utility corridor run parallel to the western Project boundary. Multiple transmission lines run along to the western Project boundary, including tall lattice structures and smaller wooden t-pole structures. The transmission lines and dirt road pass through is the sandy-bottom wash/drainage feature that flanks the southwestern Project boundary, consisting of steeper slopes than the surrounding area, ephemeral drainages, a variety of natural vegetation similar to the Project site, and loose, sandy soils. The topography along the western edge of the Project site dips in elevation into the wash/drainage area that parallels the southwestern portion of Project site for approximately 0.25-mile before passing under Phelan Road via a concrete culvert and continuing to the south. Beyond the wash/drainage area and the Los Angeles Bureau of Power and Light Road and utility corridor, the topography rises back to a similar elevation as the Project site. A short, tan masonry unit wall cuts north to south across the rising terrain, denoting single-family residences, residential landscaping (including larger trees) and fencing that sit atop elevated terrain.

Scenic Vistas

The City of Hesperia General Plan identifies natural scenic open space as a valuable scenic resource that contributes to the visual landscape and should be preserved. Such resources include the Mojave River to the east, the San Bernardino and San Gabriel Mountain ranges to the south and the surrounding Victor Valley, along with neighboring hillsides and the natural desert environment. These scenic resources provide visual relief from the man-made structures in the City and also provide residents with a connection to the natural environment (City of Hesperia 2010a). Relative to the Project site, the natural desert environment and sprawling valley are located adjacent to and immediately surrounding the Project site; the Mojave River is located over 9 miles to the southeast; and the foothills and elevated terrain within the San Gabriel and San Bernardino Mountains are located approximately 4 miles to the southwest and approximately 10 miles to the southeast, respectively.

Several washes and natural water courses traverse the City, and are identified in the City's General Plan as providing physical and visual relief from the surrounding urban development. These include the Mojave River, the Oro Grande Wash, the Antelope Valley Wash, Unnamed Wash Number 1 and Unnamed Wash Number 2 (Honda Valley Wash). Exhibits OS-4 through OS-7 of the City's General Plan, and the Wash Protection Overlay in the Main Street and Freeway Corridor Specific Plan identify preservation areas within these washes. The washes encompass approximately 1,512 acres used for a variety of activities such as hiking, equestrian riding, a golf course, and natural open space, with the majority remaining in a natural and relatively undisturbed condition (City of Hesperia 2010a). The nearest wash area to the Project site is the Oro Grande Wash, which flows at an angle in a general southwest to northeast direction, approximately 0.25-mile east of the Project site beyond U.S. Highway 395.

During the photo-survey conducted during the September 2019 site visit, specific key viewpoints or Key Observation Points (KOPs) from which to assess the potential for Project impacts on scenic vistas were identified. After visiting

the site and examining the availability of existing views to local visually prominent natural features, six viewpoints were identified for visual analysis, as depicted on Figure 4.1-1, Key View Map - Existing Conditions and Visual Simulation Photo Locations. These viewpoints look toward the Project site from public vantage points, and comprise available views that include both the Project site and valued natural scenic resources.

As mapped on Figure 4.1-1, Key View Map - Existing Conditions and Visual Simulation Photo Locations, key viewpoints (A, B, C, and D) were used to document the existing visual environment (shown in Figures 4.1-2a–b, Existing Conditions), and Key Observation Points (KOPs) (1 and 2) were selected to document the existing visual environment as well as to create visual simulations of the Project (shown in Figures 4.1-3, Visual Simulation - KOP 1, and 4.1-4, Visual Simulation - KOP 2, and further discussed in Section 4.1.4, Impacts Analysis). Key viewpoints and KOPs include: (A) U.S. Highway 395 looking southwest toward the Project site (Figure 4.1-2a, Existing Conditions [Photo A]), (B) U.S. Highway 395 looking west toward the Project site (Figure 4.1-2a, Existing Conditions [Photo B]), (C) Main Street/Phelan Road looking east toward the Project site (Figure 4.1-2b, Existing Conditions [Photo C]), (D) Phelan Road looking north toward the Project site (Figure 4.1-2b, Existing Conditions [Photo D]), (1) Phelan Road looking northeast toward the Project site (Figure 4.1-3, Visual Simulation - KOP 1 [Existing Conditions]), and (2) Bellflower Street/Yucca Terrace Drive looking southeast toward the Project site (Figure 4.1-4, Visual Simulation - KOP 1 [Existing Conditions]). The existing views available and visual qualities of each of these viewpoints are described below.

Viewpoint A – Figure 4.1-2a, Existing Conditions (Photo A)

Viewpoint A is located along U.S. Highway 395 looking southwest toward the Project site, approximately 475 feet north of the easternmost Project boundary (the eastern portion of the Project site that reaches U.S. Highway 395). Foreground views from Viewpoint A consist of the paved U.S. Highway 395 and road striping, an adjacent private property (rural residence) surrounded by a wood and wire fencing located north of a dirt road (Yucca Terrace Drive) that extends west from U.S. Highway 395. A wooden t-pole sits directly north of Yucca Terrace Drive, and dry grasses, large Joshua trees, Juniper and other small to medium shrubs and vegetation extend to the southwest across the wide valley floor. A transmission line is faintly visible crossing the landscape, and the ridgeline of the San Gabriel Mountains and lower elevation foothills enclose the valley, creating a backdrop to the flat desert terrain.

Viewpoint B – Figure 4.1-2a, Existing Conditions (Photo B)

Viewpoint B is located along U.S. Highway 395 looking west toward the Project site, approximately 165 feet southeast of the easternmost Project boundary (the eastern portion of the Project site that abuts U.S. Highway 395). Foreground elements in the view include the paved U.S. Highway 395 north- and southbound lanes and road striping, a dirt shoulder along the side of the road, and a variety of vegetation including dry grasses and small to medium shrubs. The wide valley floor, consisting of a variety of high-desert vegetation, such as grasses, shrubs, Joshua trees and Juniper, extends to the west, and tall lattice structure transmission lines as well as smaller transmission lines cross the landscape. The elevated terrain of the San Gabriel Mountains and foothills form a backdrop to the southwest, while the flat valley continues into the distance to the northwest.



Existing Conditions: View from the intersection of Bellflower Street and Yucca Terrace Drive looking southeast toward the Project site from approximately 0.28-mile to the northwest.



Visual Simulation: Proposed Conditions

SOURCE: Dudek, HPA Architects

FIGURE 4.1-4

Visual Simulation - KOP 2

Hesperia Commerce Center II

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Viewpoint C – Figure 4.1-2b, Existing Conditions (Photo C)

Viewpoint C is located on Main Street, immediately east of the Oro Grande Wash and approximately 0.5-mile east of the Project site. Existing development in the view includes the four-lane road and roadway elements (pavement, road striping, curbs, a short metal and wood guardrail, a segment of chain-link fence, and the signalized intersection with U.S. Highway 395 approximately 0.29-mile to the west). Wooden transmission lines are also visible parallel to the southern side of the road, as well as extending to the north, atop elevated terrain. Westbound motorists are afforded views of sloping desert terrain as the topography rises out of the Oro Grande Wash. On the southern side of the road, the sloping valley floor marked by desert vegetation extends to the southwest and the San Gabriel Mountains create a backdrop to the southwest. On the northern side of the road, the terrain rises to a plateau, atop which sits U.S. Highway 395 and the Project site (both of which are out of view due to the elevation differential).

Viewpoint D – Figure 4.1-2b, Existing Conditions (Photo D)

Viewpoint Photo D is located along Phelan Road approximately 25 feet south of the southern Project boundary, and looks directly north toward the Project site. Northward views from Viewpoint D primarily consist of the flat desert landscape that occupies the Project site, including dry grasses, shrubs, Joshua trees and Juniper. A curving, unpaved dirt road passes through the Project site to the east. Lattice structure and wooden transmission lines are visible crossing the landscape, and light industrial uses (truck staging and parking) appear as distant white and light-colored blocks north of the Project site. Hills and soft peaks are visible to the northeast. Visible signs of disturbance can be seen on the Project site, such as exposed soils (dirt roads and trails) and debris piles that have resulted from ongoing trespassing and illegal dumping on site.

Key Observation Point 1 – Figure 4.1-3, Visual Simulation - KOP 1 (Existing Conditions)

KOP 1 is located on Phelan Road, approximately 0.15-mile southwest of the Project site, looking northeast toward the Project site. A single-family residential development (not visible in the view) is located directly north of KOP 1, atop elevated terrain. Existing views afforded to eastbound motorists from KOP 1 include moderately sloping terrain as the topography dips in and out of the wash/drainage area that flanks the west side of the Project site. The foreground is occupied by roadway elements (pavement, roadway striping, and dirt shoulders), a concrete masonry unit wall that denotes the edge of the residential development to the north, and tall, lattice structure transmission lines pass through the lower elevations of the wash/drainage area. Additional smaller wooden transmission lines are visible parallel to the southern side of the road as well as on the southwestern corner of the Project site. The road and desert terrain slope upward to the east, and the terrain rises to a plateau on the northern side of the road, atop which sits the Project site. The rise in terrain is encompassed by the west facing bank of the wash/drainage area, and is covered in a variety of desert vegetation, including grasses, shrubs, Joshua trees and Juniper, also visible within the Project site atop the elevated plateau. A dirt road/trail is visible sloping down from the southwestern corner of the Project site and into the wash/drainage area. The southern side of the road consists of a similar rise in terrain, fencing and larger trees, presumed to be within a private property.

Key Observation Point 2 – Figure 4.1-4, Visual Simulation - KOP 2 (Existing Conditions)

KOP 2 is located at the intersection of Bellflower Street and Yucca Terrace Drive, approximately 0.28-mile northwest of the Project site, looking southeast toward the Project site. Views from this location include relatively flat to moderately sloping desert terrain that extends to the southeast. Visible signs of development include a sloping paved road and large lattice structure and smaller wooden structure transmission lines. A variety of vegetation is visible across the valley floor and within the Project site, consisting of grasses, shrubs, Joshua trees and Juniper. The distant ridgeline of the San Bernardino Mountains creates a backdrop to the wide valley floor.

Scenic Routes

There are no officially designated scenic roads or highways within the City (City of Hesperia 2010b). According to the California Department of Transportation (Caltrans), there is one officially designated state scenic highway in the County and 11 eligible scenic highways (Caltrans 2019). Route 38, the County's only designated scenic highway, is located approximately 34 miles southeast of the Project site in the San Bernardino National Forest. Route 138 and 173 are both eligible scenic highways located within City limits (Caltrans 2019). Route 138 is the closest to the Project site, located approximately 7 miles to the south of the Project site, where the road winds through the lower elevations of the San Bernardino National Forest. None of the County's officially designated or eligible scenic highways are visible from the Project site, nor is the Project site visible from the highways.

Light and Glare

The Project site does not currently support any existing sources of light or glare. Existing sources of light and glare in the Project area include street lights, exterior building lights in scattered commercial and light industrial areas, and exterior building lights, outdoor landscape lighting, and safety lighting in residential areas.

Viewshed and Visibility

Due to the relatively flat nature of the Project site and surrounding area, the site is visible from surrounding roads and land uses, including residential and commercial/light industrial uses. Views to the Project site from surrounding public vantage points consist of undeveloped land within a flat valley characterized as a desert landscape with disturbed soils where dirt roads and trails cross the Project site, scattered Joshua and Juniper trees and moderate vegetation cover consisting of grasses and shrubs. Intervening vegetation and scattered development partially screen views to the Project site from some locations. As previously discussed, key views from public vantage points were analyzed and photographed in the field to document the existing visual environment.

Viewer groups afforded views to the Project site include motorists traveling on nearby roads, residents within the surrounding rural areas, and those frequenting the nearby commercial and light industrial areas. Viewer groups in the Project area are further described below.

Viewer Groups

Motorists

U.S. Highway 395

Motorists traveling on U.S. Highway 395 are afforded views to portions of the eastern side of the Project site. Views to the southeastern portion of the Project site are screened by elevated terrain on either side of the highway. However, as the elevation differential lessens farther north along U.S. Highway 395, largely unencumbered views to the Project site are available from U.S. Highway 395. Representative views from U.S. Highway 395 are shown in Figure 4.1-2a, Existing Conditions. Views toward the Project site from U.S. Highway 395 consist of the wide valley floor, a variety of natural vegetation, including scattered Joshua trees and Juniper, tall lattice structure transmission lines as well as smaller transmission lines cross the landscape, and distant ridgelines and mountains that create a backdrop to the flat desert terrain. Rural residential development is visible from some locations and partially screens views on the approach to the Project site, as shown in Photo A, taken near the intersection of U.S. Highway 395 and the unpaved Yucca Terrace Drive.

Phelan Road/Main Street

Motorists traveling on Phelan Road/Main Street are provided views to the Project site from the south. Figure 4.1-2b, Existing Conditions, provides representative views of the Project site from Phelan Road/Main Street, as does the existing conditions image in Figure 4.1-3, Visual Simulation - KOP 1. As shown in Figure 4.1-2b, Existing Conditions, and Figure 4.1-3, Visual Simulation - KOP 1 (Existing Conditions), views afforded to motorists traveling on Main Street/Phelan Road include views of flat to gently sloping desert terrain, natural vegetation, background ridgelines, mountains and foothills. Existing development in the view primarily includes roadway elements and transmission lines.

Local Roads

Motorists traveling on local roads within residential neighborhoods and light industrial/commercial areas are afforded partially screened views to the Project site. Views to the Project site from local roads are intermittent, as views are interrupted by intervening natural vegetation, development and landscaping. The surrounding local roads are rural in character, and many are unpaved. Figure 4.1-4, Visual Simulation - KOP 2 (Existing Conditions), provides a representative view toward the Project site from a local road, taken from the intersection of Bellflower Street and Yucca Terrace Drive, approximately 0.28-mile northwest of the Project site.

Residents

The surrounding rural residential areas are afforded views to the Project site. The nearest residential developments to the Project site is approximately 200 feet to the south, approximately 500 feet to the north, approximately 0.15-mile to the west, and approximately 0.5-mile to the east. Views to the Project site from these areas include views of flat or moderately sloped desert terrain with moderate vegetation cover, and distant mountains and ridgelines, as well as roadway elements and transmission lines.

Surrounding Commercial and Light Industrial Areas

The surrounding commercial and light industrial areas are also afforded views to the Project. The nearest commercial/light industrial uses are located immediately north of the Project site, across Yucca Terrace Drive, and include truck staging and parking areas. Views to the Project site from these areas include views of flat desert terrain with moderate vegetation cover, background mountains and ridgelines, as well as roadway elements and transmission lines.

4.1.2 Relevant Plans, Policies, and Ordinances

State

California Scenic Highway Program

California's Scenic Highway Program was created by the state legislature in 1963. This program's purpose is to "preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways" (Caltrans 2008). The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq. The California Scenic Highway System includes a list of highways that are officially designated as scenic highways or eligible for designation as scenic highways. As discussed in Section 4.1.1, Existing Conditions, there are no state-designated or eligible state scenic highways within the viewshed of the Project site.

California Code of Regulations

Title 24 – California Building Standards Code

Title 24, California Building Standards Code, consists of regulations to control building standards throughout the state. The following components of Title 24 include standards related to lighting:

Title 24, Part 1 – California Building Code / Title 24, Part 3 – California Electrical Code

The California Building Code (Title 24, Part 1) and the California Electrical Code (Title 24, Part 3) stipulate minimum light intensities for pedestrian pathways, circulation ways, parking lots, and paths of egress.

Title 24, Part 6 – California Energy Code

The California Energy Code (CEC) (Title 24, Part 6) stipulates allowances for lighting power and provides lighting control requirements for various lighting systems, with the aim of reducing energy consumption through efficient and effective use of lighting equipment. Section 130.2 sets forth requirements for Outdoor Lighting Controls and Luminaire Cutoff requirements. All outdoor luminaires rated above 150 watts shall comply with the backlight, up light, and glare (BUG) ratings in accordance with IES TM-15-11, Addendum A, and shall be provided with a minimum of 40% dimming capability activated to full on by motion sensor or other automatic control. This requirement does not apply to streetlights for the public right of way, signs, or building facade lighting.

Section 140.7 establishes outdoor lighting power density allowances in terms of watts per area for lighting sources other than signage. The lighting allowances are provided by the Lighting Zone, as defined in Section 10-114 of the CEC. Under Section 10-114, all urban areas within California are designated as Lighting Zone 3. Additional allowances are provided for Building Entrances or Exits, Outdoor Sales Frontage, Hardscape Ornamental Lighting, Building Facade Lighting, Canopies, Outdoor Dining, and Special Security Lighting for Retail Parking and Pedestrian Hardscape.

Section 130.3 stipulates sign lighting controls with any outdoor sign that is on during both day and nighttime hours must include a minimum 65% dimming at night. Section 140.8 of the CEC sets forth lighting power density restrictions for signs.

Title 24, Part 11 – California Green Building Standards Code

The California Green Building Standards Code (CALGreen) (Title 24, Part 24), is commonly referred to as the CALGreen Code. The CALGreen Code stipulates maximum allowable light levels, efficiency requirements for lighting, miscellaneous control requirements, and light trespass requirements for electric lighting and daylighting. Paragraph 5.1106.8 Light Pollution Reduction, specifies that all non-residential outdoor lighting must comply with the following:

- The minimum requirements in the CEC for Lighting Zones 1-4 as defined in Chapter 10 of the California Administrative Code; and
- BUG ratings as defined in the Illuminating Engineering Society of North America's Technical Memorandum on Luminaire Classification Systems for Outdoor Luminaires (IESNA TM-15-07); and
- Allowable BUG ratings not exceeding those shown in Table A5.106.8 in Section 5.106.8 of the CALGreen Code; or
- Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.

IESNA Recommended Practices

Illuminating Engineering Society of North American (IESNA) recommends illumination standards for a wide range of building and development types. These recommendations are widely recognized and accepted as best practices and are a consistent predictor of the type and direction of illumination for any given building type. For all areas not stipulated by the regulatory building code, municipal code or specifically defined requirements, the IESNA standards are used as the basis for establishing the amount and direction of light for the Project. The IESNA provides recommendations for pre-curfew and post-curfew light levels to limit light trespass. Pre-curfew is from dusk until 11:00 p.m. local time, when the area being illuminated is more likely to be in use. Post-curfew is from 11:00 p.m. to 7:00 a.m. local time (NLPIP 2007).

The IESNA 10th Edition Lighting Handbook defines lighting zones (LZ) relative to ambient light levels, which are used to establish a basis for outdoor lighting regulations. The existing conditions surrounding the Project site are best described as LZ 3, which has a maximum recommended light trespass limit of 8 lux (0.74 foot-candles) during pre-curfew hours and 3 lux (0.28 foot-candles) during post-curfew hours.

California Vehicle Code

Chapter 2, Article 3 of the California Vehicle Code stipulates limits to the location of light sources that may cause glare and impair the vision of drivers.

Article 3. Offenses Relating to Traffic Devices [21450–21468] (Article 3 enacted by Stats. 1959, Ch. 3.), Section 21466.5. No person shall place or maintain or display, upon or in view of any highway, any light of any color of such brilliance as to impair the vision of drivers upon the highway.

Local

City of Hesperia General Plan

The City's General Plan contains the following goals and policies applicable to aesthetics, visual resources, and the visual quality and character of the Project and the surrounding area.

Land Use Element

Goal LU-1 Regulate development so that the density of residential development and the intensity of non-residential development are appropriate to the property, surrounding properties, and the general neighborhood.

- **Policy LU-1.1** Require that new construction, additions, renovations, and infill developments be sensitive to neighborhood context and building form and scale.
- **Policy LU-1.3** Require that new construction, additions, renovations, and infill developments be sensitive to the intent of the land use designations, incorporating neighborhood context as well as building form and scale.
- **Policy LU-1.4** Encourage architecture which breaks massive buildings into smaller parts. Focus on maintaining a human scale when creating common spaces or amenities.

Goal LU-3 Promote balanced, efficient commercial development that is functional, safe, attractive and convenient to users, and which will strengthen the local economy.

Policy LU-3.3 Ensure that the sign ordinance provides for commercial signage that is attractive, non-intrusive, safe, and consistent with overall City aesthetic goals.

Policy LU-3.4 Encourage the beautification of pedestrian areas, particularly through the use of landscaping.

Policy LU-3.5 Require the separation or buffering of residential areas from businesses which produce noise, odors, high traffic volumes, light or glare, and parking through the use of landscaping, setbacks, and other techniques.

Policy LU-3.6 Design outdoor commercial uses of property to minimize impacts to adjacent residential neighborhoods.

Policy LU-3.7 Incorporate varied planes and textures and variety in materials to provide superior architectural design on commercial buildings.

Policy LU-3.8 Incorporate landscape plantings into commercial developments to define and emphasize entrances, inclusive of those areas along the front of a building facing a parking lot.

Policy LU-3.9 Incorporate on all major commercial developments theme elements intended to distinguish them from other development, foster individuality, and promote gathering opportunities.

Policy LU-3.10 Where possible, connect rear parking lots of commercial development to the fronts of buildings with sidewalks or other features.

Policy LU-3.11 Where possible, reduce conflicts between delivery areas and pedestrian areas.

Policy LU-3.12 Require outdoor or seasonal storage areas, where permitted, to be screened from public view.

Policy LU-3.13 Include full architectural treatment on all sides of development projects.

Goal LU-4 Promote industrial development within the City which will expand its tax base and provide a range of employment activities, while not adversely impacting the community or environment.

Policy LU-4.1 Require landscaped buffers and other techniques to protect residentially designated property directly adjacent to industrial land uses.

Policy LU-4.4 Require the separation or buffering of residentially designated areas from industrial businesses which produce noise, odors, high traffic volumes, light and/or glare, and parking through the use of landscaping, setbacks, and other techniques. Existing residential areas should not limit the potential uses within industrial areas.

Policy LU-4.5 Design industrial uses adjacent to residential property to minimize impacts to the residential property

Policy LU-4.6 Incorporate varied planes and textures and variety in building materials on industrial buildings to achieve high quality architectural design.

Policy LU-4.7 Incorporate landscape plantings into industrial projects to define and emphasize entrances, inclusive of those areas along the front of a building facing a parking lot.

Policy LU-4.8 Require delivery areas to be separated from pedestrian areas.

Policy LU-4.9 Include full architectural treatment on all sides of buildings facing streets.

Goal LU-7 Facilitate a self-contained community with a well-designed and maintained community with a full range of densities and uses within the capacity of infrastructure and services.

Policy LU-7.1 Continue to encourage quality design in all new construction to further improve the built environment of the City.

Open Space Element

Goal OS-2 Identify and preserve natural open space in order to protect sensitive environments and preserve amenities such as washes, bluffs, Joshua tree forests, or juniper woodlands. Open space areas should be contiguous or connected through trails to provide accessibility for hikers and equestrians as well as wildlife.

Policy OS 2.3 Utilize natural open space to preserve natural resources such as historical, biological and scenic resources.

Goal OS-3 The areas within the Oro Grande Wash and the Unnamed Wash east of Interstate 15 identified as Area A, B and C of Exhibit OS - 7 shall be preserved in their natural state.

Policy OS-3.1 The City shall develop a policy to implement the Transfer of Development Rights (TDR) Program. The program should allow for the full transfer of development rights from portion of properties affected by slopes and/or drainage.

Goal OS-4 Permit a variety of uses within open space areas, depending upon the natural amenities available.

Policy OS-4.2 Preserve the aesthetic integrity and usefulness of open space washes by implementing restrictive development standards on projects occurring in or around the wash areas, and ensuring development proposals are compatible.

Policy OS-4.3 Establish setbacks for buildings and walls along the rim of washes to preserve natural land, form, and vegetation.

Main Street and Freeway Corridor Specific Plan

Land use and development for the Project area is further guided by the Main Street and Freeway Corridor Specific Plan (Specific Plan). According to the Specific Plan, the Project site is located within the Main Street/I-15 Land Use District and within the Industrial Business Park Specific Plan Zone; the zoning designations for the Project site is Commercial/Industrial Business Park (CIBP) (City of Hesperia 2020) (see Figure 3-4, Land Use Designations, and Figure 3-5, Zoning, in Chapter 3, Project Description).

Further, the Specific Plan establishes the preservation of Oro Grande Wash and other smaller washes through the Wash Protection Overlay, which limits the construction of permanent structures within the washes' right-of-way in order to keep the washes natural and undeveloped (City of Hesperia 2020). As shown in Figure 6.1 of the Specific Plan, the Oro Grande Wash area located east of the Project site (on the eastern side of U.S. Highway 395) is designated as within the Wash Protection Overlay.

The following goals and policies of the Specific Plan aim to preserve the existing visual resources within the Specific Plan area:

Urban Design and Open Space

Goal UD-1 Strengthen the identity of the City of Hesperia and the Specific Plan area by building upon the surrounding natural resources and amenities, and create a new image for Main Street and the Freeway Corridor that expresses an attractive, inviting, high quality character and commercial vitality.

Policy UD-1.1 Recognize and capitalize on Hesperia's unique location and setting — "Gateway to the High Desert" at the top of the Cajon Pass, desert landscape, and dramatic natural features such as the Oro Grande Wash - to further establish a sense of pride in the community.

Policy UD-1.2 Identify regional gateways into the City along Interstate-15 and create City identity at these locations by taking inspiration from the City's dramatic location at the top of Cajon Pass and Cajon Summit.

Policy UD-1.4 Preserve views of the mountains - San Gabriel Mountains to the southwest and San Bernardino National Forest to the southeast.

Goal UD-3 Take advantage of the City's climate and natural setting while preserving existing open space resources and planning for new resources.

Policy UD-3.1 Recognize and preserve the washes' multiple functions: a place for recreation, a natural habitat and a channel for storm runoff.

Policy JD-3.5 Preserve and protect significant areas of native wildlife and plant habitat.

Policy UD-3.6 Utilize the SCE corridor right-of-way for creating a walking and biking trail.

Policy UD-3.7 Preserve trails for equestrian uses.

Goal UD-4 Enhance the pedestrian environment and driving experience within the City.

Policy UD-4.l Establish an open space network that connects the City's existing and planned open space resources. Recognize Main Street as a fundamental element of this network.

Commercial/Industrial Business Park Zone Development Standards

Chapter 9, Section G, Commercial/Industrial Business Park Zone, of the Specific Plan outlines permitted uses and development standards for the CIBP zone. The purpose of the CIBP Zone is to create employment-generating uses in a business park setting. This zone is intended to provide for service commercial, light industrial, light manufacturing, and industrial support uses. The development standards for this zone aim to ensure a quality appearance, and because of the size and scale of industrial buildings, it is especially important to consider design to ensure compatibility with other parts of the community. Further, Chapter 11, Industrial Design Standards and Guidelines, of the Specific Plan outlines additional site and architectural design standards and guidelines, including landscape design standards and guidelines for industrial uses. The design standards and guidelines aim to improve the quality of design and create attractive and functional site arrangements that create visual interest and improve the appearance and character of the freeway corridor. Table 4.1-1 outlines the development standards for the CIBP Zone that are applicable to the Project.

Table 4.1-1. Main Street and Freeway Corridor Development Standards for CIBP Zone

Hesperia Main Street and Freeway Corridor Development Standards for CIBP Zone
Minimum Lot Size: 10 acres **Minimum Width:** 500 feet **Minimum Depth:** 500 feet
Maximum Gross Floor Area Ratio: 0.50
Maximum Building Height: 60 feet (45 feet within the portion of the lot that falls within 100 feet of an adjacent residential zone)*
Street Yard Setbacks: 25 feet **Front Yard Setback:** 25 feet **Street Side Yard Setback:** 15 feet **Rear Yard Setback:** None (except where the rear yard abuts a residential zone or residential development as a part of a Regional Commercial zone: 50 feet) **Interior Side Yard Setback:** None (except where the interior property line abuts a residential zone, or residential development as a part of a Regional Commercial zone: 20 feet)
Parking and Loading: In addition to the off-street parking requirements and standards set forth in Chapter 16.20, Article IV (Parking and Loading Standards) of the HMC, the following shall apply: (1) To alleviate the unsightly appearance of loading facilities for industrial uses, these areas should not be located at the front of buildings where it is difficult to adequately screen them from view. Such facilities are more appropriately located at the rear of the site where special screening may not be required. (2) When it is not possible to locate loading facilities at the rear of the building, loading docks and doors should not dominate the frontage and must be screened from the street. Loading facilities should be offset from driveway openings. (3) Backing from the public street onto the site for loading into front end docks causes unsafe truck maneuvering and should not be utilized except at the ends of industrial cul-de-sacs where each circumstance will be studied individually at the time of design review.
Landscaping: 1) Drought-tolerant and water conserving landscaping and water efficient irrigation systems and techniques shall be utilized whenever possible. (2) In addition, the design standards and guidelines included in Chapter 11 (Industrial Design Standards and Guidelines) of this Plan shall apply. The provisions of Chapter 16.20, Article XII (Landscape Regulations) and Chapter 16.24 (Protected Plants) of the HMC shall apply with the following exceptions/additions: (3) Industrial development in this zone shall provide a minimum of ten percent on-site landscaping, including that required in setback areas. Refer to section 16.20 Article XII of the HMC for minimum landscape requirements.
Walls and Fences: (1) An industrial development adjacent to any residential zone shall have a minimum 6 foot high wall, not to exceed 8 feet, along property lines adjacent to such districts. (2) Both sides of all perimeter walls should be architecturally treated. Appropriate materials include decorative masonry, concrete, stone and brick.
Outdoor Displays, Storage, Equipment, and Work Areas: (1) No retail sales, merchandise displays or work areas shall occur outside building(s). (2) Outside storage and equipment shall be confined to the rear half of the property or the rear of the principal structure on site, whichever is more restrictive, and screened from public view from any adjoining properties and public rights-of-way by appropriate walls, fencing and landscaping. (3) Outdoor hoists are subject to the conditions and standards listen in Chapter 9(C)(4.18).

Source: City of Hesperia 2020.

City of Hesperia Municipal Code

The City provides landscaping guidelines and regulations through Chapter 16.20, Article XII of the Municipal Code. The purpose of this chapter is to provide water conservation and landscape development standards and guidelines that will promote the general welfare of the City's residents by creating a responsible outdoor environment. The landscape regulations aim to achieve a diversity of drought-tolerant landscaping that is appropriate to the high-desert environment and creates aesthetically pleasing views and vistas along public streets

Chapter 16.24 Protected Plants of the City of Hesperia Municipal Code preserves and protects specific desert native plants and provides for the conservation of desert resources, through regulation, guidelines and enforcement that manage the removal or harvesting of such plants. These plants contribute to the visual resources of an area, and as a consequence, "the city finds that it is in the public interest to preserve and protect specified desert native plants and provide for the conservation and wise use of our desert resources, through regulation, guidelines and enforcement that manage the removal or harvesting of such plants." Detailed analysis regarding this resource is provided in chapter 4.3, Biological Resources, of this EIR.

The City of Hesperia has established Sign Regulations in Chapter 16.36 of the Municipal Code. The purpose of this chapter is to encourage economic development by supporting the commercial communication needs of the business community, enhance the quality of life by providing a visually pleasing environment, and promote public health, safety and welfare. As such, the Project would be required to adhere to the regulations outlined in Chapter 16.36.

Section 16.20.135 contains general performance standards related to glare such that any activity shall not cause glare above 0.5 footcandles when measured in a residential district or lot.

4.1.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to aesthetics are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to aesthetics would occur if the Project would:

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 public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, 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.
E. Result in cumulatively considerable impacts with regard to aesthetic and visual considerations.

4.1.4 Impacts Analysis

Threshold A: Would the Project have a substantial adverse effect on a scenic vista?

Less-than-Significant Impact with Mitigation Incorporated. The Project would involve the construction of three industrial/warehouse buildings, surface parking and loading areas. As shown in Figure 3-6, Site Plan, in Chapter 3,

Buildings 1 and 3 would be in the northern portion of the Project site, and Building 2 would be in the southern portion of the Project site and would front Phelan Road.

The Project site is located on relatively flat land within a wide, valley floor. The City of Hesperia General Plan identifies natural scenic open space as a valuable scenic resource that contributes to the visual landscape and states that these areas should be preserved. Open space areas within the City include the Mojave River to the east, the San Bernardino and San Gabriel Mountain ranges and the surrounding Victor Valley to the south, and the neighboring undeveloped hillsides and the natural desert environment. Additionally, several washes and natural water courses traverse the City, and are identified in the City's General Plan as providing physical and visual relief from surrounding urban development (City of Hesperia 2010a).The City protects wash areas through the Main Street and Freeway Corridor Specific Plan Wash Protection Overlay. The nearest protected wash area to the Project site is the Oro Grande Wash, which is located approximately 0.25-mile to the east of the Project site beyond U.S. Highway 395.

As discussed in Section 4.1.1, photographs of the Project site and surrounding area were taken from public vantage points to document the existing visual environment and to identify locations from which to assess the potential for Project impacts on scenic vistas. The photo locations are depicted in Figure 4.1-1, Key View Map - Existing Conditions and Visual Simulation Photo Locations. Key view locations A, B, C, and D were selected to depict existing views toward the Project site available from public vantage points (see Figures 4.1-2a–b, Existing Conditions), and KOPs 1 and 2 were selected to depict existing conditions and visual simulations of the Project (see Figures 4.1-3, Visual Simulation - KOP 1, and 4.1-4, Visual Simulation - KOP 2). Visual simulations provide 3-dimensional photo-realistic before and after images of the Project. The key view locations and KOPs were selected based on the variety of viewer groups in the area and existing views to natural scenic resources. Motorists constitute the largest viewer group in the Project area, and thus, views are depicted from public roadways. Other land uses in the Project area include rural residential uses and commercial/light industrial uses. These land uses are located in close proximity to the key view locations and KOPs, and would be afforded similar views as presented in the photographs.

As discussed in Section 4.1.1, existing views toward and across the immediate and broader Project area consist of natural scenic elements such as the flat valley floor, sloping natural terrain within nearby washes, including the Oro Grande Wash (Figure 4.1-2b, Existing Conditions [Photo C]) and the smaller wash/drainage area adjacent to the Project site (Figure 4.1-3, Visual Simulation - KOP 1 [Existing Conditions]), a variety of natural vegetation, including scattered Joshua trees and Juniper, and distant ridgelines of the San Gabriel and San Bernardino Mountains that form a backdrop (Figure 4.1-2b, Existing Conditions [Photo C], and Figure 4.1-4, Visual Simulation - KOP 2 [Existing Conditions]). Additionally, there are several man-made elements located throughout the Project area that intervene between viewers and natural scenic elements. These intervening elements include roadways, roadway signage, rural residential buildings, light industrial uses (e.g., truck yards, warehouses, and scrapyards), and transmission lines.

As discussed in further detail below, implementation of the Project would result in the development of three warehouse buildings within an area that contains limited levels of development (visual simulations are provided in Figure 4.1-3, Visual Simulation - KOP 1, and Figure 4.1-4, Visual Simulation - KOP 2). As shown on these figures, while development of these structures would result in some levels of blockage of views of natural scenic elements, these views would still largely be afforded to viewers as they move through the Project area. Moreover, the presence of existing man-made elements (i.e., transmission lines, signage, and light-industrial uses) within the existing viewshed precludes views of the Project site from being particularly significant. In addition, implementation of MM-AES-1 would require that Project buildings are designed such that building colors mimic the colors and tones found in the natural desert landscape to soften the contrast with the surrounding desert terrain, to the extent feasible.

These factors and significance determinations are discussed in further detail below in the context of specific key observation points, which are representative of other views in and around the Project site.

Visual Simulations

KOP 1

Figure 4.1-3, Visual Simulation - KOP 1, provides an existing conditions image and a visual simulation of the Project from KOP 1, which is located on Phelan Road, approximately 0.15-mile southwest of the Project site. A residential development is located immediately north of KOP 1, across Phelan Road atop elevated terrain on the western side of the wash/drainage area. Views afforded to eastbound motorists include natural scenic resources such as the gently to moderately sloping desert terrain covered with a variety of natural vegetation within a small wash/drainage area that flanks the western side of the Project site (within the Los Angeles Bureau of Power and Light Road corridor). A rise in the terrain encompassed by the eastern bank the wash/drainage area is visible and covered with grasses and scattered small to medium sized shrubs, and large Joshua and Juniper trees. The Project site portrays as a flat plateau elevated atop vegetation covered slopes. Multiple transmission lines are apparent in the immediate foreground and middle-ground and are located adjacent to the Project site's western and southern boundaries. Associated with these transmission lines are the tall lattice structures within the Los Angeles Bureau of Power and Light Road right-of-way and the smaller wooden t-pole structures along Phelan Road.

As shown Figure 4.1-3, Visual Simulation - KOP 1 (Visual Simulation), the Project would introduce wide, lower-profile warehouse buildings to the Project site. The approximately 48-foot-tall western and southern façades of Building 2 would be prominently visible from KOP 1. The southern façade of the building would be visible extending to the east, as the building fronts Phelan Road for approximately 3,000 feet. The building façades would include vertical and horizontal color variation that would break up the overall massing of the buildings and provide visual interest. While the warehouse buildings would be prominently visible and would alter the existing view, the Project would not substantially block or disrupt views of the natural features from KOP 1. The sloping terrain and existing desert vegetation within the wash/drainage area west of the Project site would remain intact. Project buildings would not block views across the desert landscape from KOP 1, as under existing conditions, the elevated plateau impedes long distance views across the landscape from KOP 1. As motorists travel east on Phelan Road, the road slopes upward to meet the elevation of the Project site. Phelan Road is a major arterial, which is meant to accommodate large volumes of through-traffic traveling at higher speeds (City of Hesperia 2010a). Assuming drivers are traveling on Phelan Road at prevailing speeds (55 mph), Building 2 would front Phelan Road and screen immediate views across the landscape to the north for a brief period (approximately 38 seconds) and views would be quickly restored. Some Joshua trees that are visible from KOP 1 and additional trees within the Project site would be removed. However, Joshua trees would be relocated according to the Joshua Tree Relocation Plan (see Section 4.3, Biological Resources, of this EIR). Thus, views from KOP 1 would not be substantially impacted such that views of scenic vistas or scenic resources would be substantially blocked or screened from view.

KOP 2

Figure 4.1-4, Visual Simulation - KOP 2, provides an existing conditions image and a visual simulation of the Project from KOP 2, located at the intersection of Bellflower Street and Yucca Terrace Drive, approximately 0.28-mile northwest of the Project site. KOP 2 is representative of views to toward the Project site from local roads within the rural residential and light industrial/commercial areas surrounding the Project site. Rural residential properties are located within close proximity of KOP 2. Scenic vistas and scenic resources visible from this location include the expansive desert terrain and natural vegetation (including Joshua trees) and the background ridgeline of the San

Bernardino Mountains. Similar other views surrounding the Project site, existing transmission lines and tall lattice towers and t-poles are the primary built structures that intervene between viewers and scenic backdrops. While these features do not block views of the desert landscape or San Bernardino Mountains, the disorganized repetition of the linear and angular features detract from the overall integrity of the viewshed. Additionally, several medium-duty and heavy-duty trucks are visible in the foreground and middle-ground, in an area immediately north of the Project site. These trucks are parked on one of many truck storage lots located throughout the Project area and throughout the U.S. Highway 395 corridor.

As shown in Figure 4.1-4, Visual Simulation - KOP 2 (Visual Simulation), upon Project implementation the Project would introduce warehouse buildings (only Buildings 1 and 2 would be visible from KOP 2) into the viewshed. The existing view of the foreground desert terrain and natural vegetation would remain intact, and Joshua trees removed from the Project site would be relocated according to the Joshua Tree Relocation Plan (see Section 4.3 of this EIR). Project buildings would display a low, flat profile that would mimic the flat desert terrain. As shown in the visual simulation, Project buildings would display a variety of tan and brown colors with vertical and horizontal elements, which would disrupt the monotony of the building facades. However, the bright/light tan of the western façade of the buildings would be prominently visible and would contrast with the natural desert terrain. MM-AES-1 would require that Project buildings are designed such that building colors mimic the colors and tones found in the natural desert landscape to soften the contrast with the desert terrain, to the extent feasible. Further, the Project would include landscaping that would incorporate natural vegetation and that would complement the desert landscape. With implementation of MM-AES-1 and through site specific landscaping, the visible contrast with the surrounding environment would be softened. Additionally, introduction of Project buildings on the Project site would shorten the available views across the flat desert landscape, and when viewed directly across the Project site, would block a portion of San Bernardino Mountains from view. However, given the low profile and limited extent of Project buildings, these views would only be partially blocked from view and would be fully restored to viewers as they travel around the Project area. Moreover, these views of the desert landscape and San Bernardino Mountains are already interrupted by existing transmission facilities and trucking-related use which detract from the overall integrity of the viewshed. Thus, placement of Project structures within the viewshed of this KOP, which is representative of other views in and around the Project site, would not result in a significant impact to scenic vistas, as the Project buildings would only result in minor blockage of views of desert landscape and the San Bernardino Mountains; views would be restored upon moving around the Project site; and existing intervening features within and surrounding the Project site detract from existing views through and beyond the Project site. Therefore, with incorporation of MM-AES-1, impacts associated with scenic vistas would be less than significant.

Threshold B: Would the Project substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. There are no officially designated scenic roads or highways within City boundaries (City of Hesperia 2010b). The nearest designated state scenic highway, Route 38, is located approximately 34 miles southeast of the Project site. The nearest eligible scenic highway, Route 138, is located 7 miles to the south of the Project site (Caltrans 2019). Due to distance and intervening terrain, vegetation and development, none of these officially designated or eligible scenic highways are visible from the Project site, nor is the Project site visible from the highways. Therefore, no impacts associated with scenic resources within in a state scenic highway would occur.

Threshold C: In non-urbanized areas, would the Project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?

Less-than-Significant Impact with Mitigation Incorporated. California Public Resources Code Section 21071 defines an "urbanized area" as "an incorporated city that meets either of the following criteria: (1) Has a population of at least 100,000 persons, or (2) Has a population of less than 100,000 persons if the population of that city and not more than two contiguous incorporated cities combined equals at least 100,000 persons." The City's population in 2019 was approximately 95,750 people (U.S. Census 2019). However, the City is bordered by the City of Victorville to the north, City of Apple Valley to the east, unincorporated San Bernardino County land to the south, and the unincorporated community of Oak Hills to the west. The combined population of the City of Hesperia and any one of these adjacent Cities is over 100,000 persons. Thus, the Project site is considered to be within an urbanized area and following analysis considers whether the Project would conflict with applicable zoning or other regulations governing scenic quality. Nonetheless, the Project's compatibility with the existing visual character and quality of the surrounding area as viewed from public vantage points has also been considered and discussed throughout this analysis. Figures 4.1-2a–b, Existing Conditions, depict existing conditions images of the Project site from public vantage points, and Figures 4.1-3, Visual Simulation - KOP 1, and 4.1-4, Visual Simulation - KOP 2, depict existing conditions and visual simulations of the Project from public vantage points.

The Project would result in the construction of three industrial/warehouse buildings on relatively flat, vacant land. The Project would result in an increase in the intensity of use on currently undeveloped site, as the Project would support a variety of activities associated with the three industrial/warehouse buildings, including the ingressing and egressing of passenger vehicles and trucks, the loading and unloading of trucks with designated truck courts/loading areas, and the internal and external movement of materials around the Project site via forklifts, pallet jacks, and similar equipment. In an attempt to ensure that current and future development within the City is designed and constructed to conform to existing the visual character and quality, the City of Hesperia Development Code (Title 16 of the City's Municipal Code) includes design standards related to building size, height, floor area ratio, and setbacks, as well as landscaping, signage, and other visual considerations. These design standards help adjacent land uses to be visually consistent with one another and their surroundings, and reduces the potential for conflicting visual elements. More specific to the Project site, the Main Street and Freeway Corridor Specific Plan sets forth development standards for the CIBP Zone and industrial development. The design specifications for the Project would be reviewed by the City for compliance with all applicable provisions set forth by the City's Development Code and the Specific Plan. As part of the City's development review process, the Project's architectural plans would be reviewed by City staff and the Planning Commission to determine whether Project design conforms to the Development Code and Specific Plan, and promotes the visual character and quality of the surrounding area. Table 4.1-2 provides a consistency analysis with the development standards for the CIBP Zone (Chapter 9 of the Specific Plan).

Table 4.1-2. Project Consistency with Development Standards for CIBP Zone

Hesperia Main Street and Freeway Corridor Specific Plan Development Standards for CIBP Zone	Project Design
Minimum Lot Size: 10 acres **Minimum Width:** 500 feet **Minimum Depth:** 500 feet	***Consistent.*** The Project site is approximately 194.8-acres and would be consistent with the minimum lot size, width and depth.

Table 4.1-2. Project Consistency with Development Standards for CIBP Zone

Hesperia Main Street and Freeway Corridor Specific Plan Development Standards for CIBP Zone	Project Design
Maximum Gross Floor Area Ratio: 0.50	***Consistent.*** The maximum gross floor area ratio would not exceed 0.50.
Maximum Building Height: 60 feet	***Consistent.*** Maximum building height would be 48 feet.
Street Yard Setbacks: 25 feet **Front Yard Setback:** 25 feet **Street Side Yard Setback:** 15 feet Rear Yard Setback: None (except where the rear yard abuts a residential zone or residential development as a part of a Regional Commercial zone: 50 feet) Interior Side Yard Setback: None (except where the interior property line abuts a residential zone, or residential development as a part of a Regional Commercial zone: 20 feet)	***Consistent.*** Building front setbacks would be 25 feet, side/rear setbacks would be 0 feet, which would be consistent with the setback requirements.
Parking and Loading: In addition to the off-street parking requirements and standards set forth in Chapter 16.20, Article IV (Parking and Loading Standards) of the HMC, the following shall apply: (1) To alleviate the unsightly appearance of loading facilities for industrial uses, these areas should not be located at the front of buildings where it is difficult to adequately screen them from view. Such facilities are more appropriately located at the rear of the site where special screening may not be required. (2) When it is not possible to locate loading facilities at the rear of the building, loading docks and doors should not dominate the frontage and must be screened from the street. Loading facilities should be offset from driveway openings. (3) Backing from the public street onto the site for loading into front end docks causes unsafe truck maneuvering and should not be utilized except at the ends of industrial cul-de-sacs where each circumstance will be studied individually at the time of design review.	***Consistent.*** Single loaded truck bays would be located on the north and south sides of Buildings 1 and 2 and on the south side of Building 3. Building 1 would provide 253 loading docks, Building 2 would provide 346 loading docks, and Building 3 would provide 14 loading docks. Paved passenger vehicle parking areas would be provided along the eastern and western sides of each building, and truck/trailer parking would be provided in between, north, and south of Buildings 1 and 2. Gated entry is proposed at key dock access routes for each building. Gated areas would not be shared amongst buildings; an 8-foot tall wrought iron fence would separate contiguous trailer parking areas. In total, the Project site would include 1,763 stalls for trailers and 1,631 standard parking spaces for passenger vehicles and trailers. Building orientation and placement of service areas would be designed such that vegetative screening would soften views of the Project site and to enhance the visual quality.
Landscaping: 1) Drought-tolerant and water conserving landscaping and water efficient irrigation systems and techniques shall be utilized whenever possible. (2) In addition, the design standards and guidelines included in Chapter 11 (Industrial Design Standards and Guidelines) of this Plan shall apply. The provisions of Chapter 16.20, Article XII (Landscape Regulations) and Chapter 16.24 (Protected Plants) of the HMC shall apply with the following exceptions/additions: (3) Industrial development in this zone shall provide a minimum of ten percent on-site landscaping, including that required in setback areas.	***Consistent.*** Project landscaping would consist of water efficient landscaping that would incorporate natural desert vegetation and would feature a variety of trees, shrubs, plants, and landcovers. The Project would provide a minimum of ten percent on-site landscaping.

Table 4.1-2. Project Consistency with Development Standards for CIBP Zone

Hesperia Main Street and Freeway Corridor Specific Plan Development Standards for CIBP Zone	Project Design
Refer to section 16.20 Article XII of the HMC for minimum landscape requirements.	
Walls and Fences: (1) An industrial development adjacent to any residential zone shall have a minimum 6 foot high wall, not to exceed 8 feet, along property lines adjacent to such districts. (2) Both sides of all perimeter walls should be architecturally treated. Appropriate materials include decorative masonry, concrete, stone and brick.	***Not Applicable.*** The Project site does not abut a residential zone, and therefore, would not have a perimeter wall. An 8-foot tall wrought iron fence would separate contiguous trailer parking areas.
Outdoor Displays, Storage, Equipment, and Work Areas: (1) No retail sales, merchandise displays or work areas shall occur outside building(s). (2) Outside storage and equipment shall be confined to the rear half of the property or the rear of the principal structure on site, whichever is more restrictive, and screened from public view from any adjoining properties and public rights-of-way by appropriate walls, fencing and landscaping. (3) Outdoor hoists are subject to the conditions and standards listen in Chapter 9(C)(4.18).	***Not Applicable.*** No retail sales, merchandise displays, work areas, outside storage and equipment would occur outside buildings.

Due to the size and scale of industrial buildings, it is especially important to consider design to ensure compatibility with other parts of the community. Chapter 11 of the Specific Plan provides additional details regarding design standards and guidelines for industrial development. In accordance with the Specific Plan design guidelines, all setback areas would be landscaped, and building orientation, siting and entrances would be designed to minimize conflicts with the surrounding visual environment. For instance, landscaping and vegetation would be used to provide visual screening, and building facades would feature a complementary neutral color palette and a variety of building materials.

With implementation of MM-AES-1, building colors shall be reviewed to incorporate the colors and tones that match or complement the natural desert environment such that color contrasts with the surrounding environment would be minimized. Buildings would include materials such as concrete, metal, aluminum entry framing, and glass, and building elevations would include vertical and horizontal elements that would break up the overall massing of the buildings and provide visual interest (see Figures 3-7a–d, Architectural Elevations, in Chapter 3).

Project buildings and streetscape elements (e.g., lighting and paving materials) would be designed to minimize conflicts between the Project and existing residential neighborhoods to the north, west, east and south by locating the most intensive components of the Project as far away from residences as possible. The existing natural and semi-natural land uses, such as Oro Grande Wash corridor and the adjacent wash/drainage area to the west of the Project site (within the Los Angeles Bureau of Power and Light Road transmission corridor), would serve as natural buffers between the Project site and surrounding residential areas.

The Project would be of similar bulk and scale as other industrial and commercial development located throughout the City and region, such as the existing manufacturing, distributing and commercial uses located approximately 1 mile east and

south of the Project site, near I-15 and U.S. Highway 395. Further, as shown in Figure 4.1-3, Visual Simulation - KOP 1, the flat, low appearance of Project buildings would mimic the surrounding, relatively flat desert landscape.

The visual setting surrounding the Project site currently consists of primarily undeveloped desert landscape with scattered residential, commercial and light industrial uses, and panoramic views of the surrounding valley and mountains. The visual integrity of the site itself has been disrupted by the disturbed nature of the site, which is crossed by dirt trails and roads and scattered debris piles due to ongoing trespassing and illegal dumping on site (as shown in Figure 4.1-2b, Existing Conditions [Photo D], debris piles and exposed soils are visible near the road as well as scattered throughout the site). Overall, Project development would alter the existing rural character of the Project area. However, the proposed building elevations are consistent with the design standards and guidelines outlined in the Specific Plan.

The Main Street and Freeway Corridor Specific Plan encourages architectural design to maximize views of the landscape and incorporate natural elements. Project landscaping would include a plant palette that complements and reflects the natural desert environment. Further, with incorporation of MM-AES-1, natural desert tones would be used in Project colors and materials to reduce contrast with the surrounding environment. The Project would eliminate the illegal uses currently occurring on site (trespassing and illegal dumping), and develop the vacant parcels with maintained development and landscaping. Therefore, compliance with the City's Development Code and the Main Street Corridor Specific Plan design standards and guidelines, implementation of site specific landscaping, and with implementation of MM-AES-1, the Project would not conflict applicable zoning or other regulations governing scenic quality and impacts related to visual character and quality would be less than significant.

Threshold D: Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less-than-Significant Impact. The Project site is currently undeveloped and does not support any existing sources of light or glare, and development of the Project would introduce new sources of light and glare to the Project site. However, developed portions of the City contain numerous sources of light and glare typical of urban and semi-rural environments. Existing sources of light or glare include streetlights, freestanding lights, building-mounted lights, illuminated signage, reflective building materials, and vehicular headlights. The undeveloped portions of the City, such as the Project site, contain few, if any, sources of light and glare. New sources of nighttime lighting resulting from the implementation of the Project include parking lot and loading area lighting, as well as building mounted lights. The Project would include a variety of exterior building light fixtures and parking lot lighting fixtures, including LED Type 3, 4, and 5 building mounted and pole mounted light fixtures. As depicted on Figures 3-7a–d, Architectural Elevations, building materials would primarily include concrete, metal, aluminum, and glass windows. These features could result in light trespass, light pollution, and glare to the neighboring light sensitive land uses, which include rural residential areas located north, west, east and south of the Project site.

The majority of construction activities associated with the Project would occur during daytime hours consistent with standard industry practices. In the event that work is required outside the standard construction hours (to reduce traffic or other impacts), lighting would be focused directly on work activity areas and would be temporary. As such, nighttime construction lighting impacts would be less than significant.

Upon Project implementation, the Project could potentially result in significant adverse light and glare impacts on nighttime views due to the addition of building and parking lot lighting. However, the Project would be required to minimize light and glare impacts to sensitive land uses through the incorporation of setbacks, site planning, and other design techniques (consistent with General Plan Policy LU-3.5). Section 16.20.135 of the City's Municipal Code contains general performance standards related to light and glare such that any industrial activity shall not cause light trespass above 0.5 footcandles when measured in a residential district or lot (City of Hesperia 2020).

According to the photometric plan prepared for the Project (Appendix B), Project lighting would result in light trespass of less than 0.2 footcandles along the entire Project perimeter. Therefore, the Project would not result in light trespass above 0.5 footcandles within any nearby residential areas.

Further, all light fixtures would be required to be consistent with the California Green Building Standards Code for illumination. The California Green Building Standards Code sets forth minimum requirements based on Lighting Zones, as defined in Chapter 10 of the California Administrative Code. The requirements are designed to minimize light pollution in an effort to maintain darks skies and ensure new development reduces backlight, uplight, and glare (BUG) from exterior light sources (CALGreen 2019). The Project would be required to comply with the CALGreen BUG rating for Lighting Zone 3. Further, all lights would be shielded and directed downward, and the proposed lighting plan does not include blinking, flashing, or oscillating light sources.

The warehouse buildings would incorporate a variety of building materials. As depicted on Figures 3-7a–d, Architectural Elevations, building materials would primarily include concrete, metal, aluminum, and glass windows. Metal canopy overhangs for shading would be included above building entrances, and aluminum entrance fronts would include glass and metal attachments. Blue reflective glazing and high gloss paint is proposed for the entrance fronts and canopies. Glass windows would consist of tempered vision insulated glass with a solarban 60 rating, which has a low exterior reflectance percentage to maximize daylighting opportunities to interior building spaces. Although metallic materials and glass have been incorporated into Project design, Project setbacks and proposed landscaping would provide screening to screen such Project elements from view, and all paint finishes would be flat (with the exception of the high gloss proposed for entrance fronts and canopies). As such, building materials would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Therefore, based on compliance with the City's Development Code and CALGreen lighting standards, impacts associated with light and glare would be less than significant.

Threshold E: Would the Project result in cumulatively considerable impacts with regard to aesthetic and visual considerations?

Less-than-Significant Impact with Mitigation Incorporated. The Project is located within the Main Street and Freeway Corridor Specific Plan area, and thus, would be designed and constructed according to the design guidelines and standards outlined in the Specific Plan for the CIBP Zone and industrial development. These guidelines and standards aim to protect the Specific Plan area's high desert setting and panoramic mountain views. All related projects located within the Specific Plan area would be subject to these design guidelines and standards, which include recommendations for the architectural character of new buildings to maximize views of the landscape while taking inspiration from surrounding natural elements.

The development and design standards provide the framework for the desired aesthetic and visual environment. Other development projects in the area will incorporate development standards, design guidelines, and other strategies outlined in the Specific Plan. In addition, with implementation of MM-AES-1, the Project's proposed building colors shall be reviewed to incorporate the colors and tones that match or complement the natural desert environment such that color contrasts with the surrounding cumulative environment would be minimized. Thus, cumulative impacts related to the visual quality and character of the Project area would not be cumulatively considerable, assuming that related Projects would implement the same mandatory design standards set forth in the Specific Plan to which the Project must adhere.

Related development in the Specific Plan area and surrounding areas would introduce new sources of light in a setting that includes large areas of undeveloped land. However, Project lighting would comply with existing requirements (i.e.,

lighting would be directed downward, shielded, and focused on the Project site) to ensure lighting has a minimal effect on the overall night sky and reduce the potential for glare. Other projects located throughout the Specific Plan area would similarly be required to comply with these regulations. Therefore, compliance with these regulations would ensure that lighting and glare impacts would be less than significant with mitigation incorporated.

4.1.5 Mitigation Measures and Level of Significance After Mitigation

Threshold A: Would the Project have a substantial adverse effect on a scenic vista?

The Project could result in potentially significant impacts to scenic vistas. MM-AES-1 would be implemented, and Project impacts would be **less than significant with mitigation incorporated**.

MM-AES-1 Project buildings and elements shall include colors and tones that mimic the natural desert environment. The Project applicant shall present to the City of Hesperia a materials board showing the proposed building color palette for review and approval prior to issuance of the first building permit. City staff shall review the color palette to ensure that the selected colors and tones largely conform to those colors and tones already found in the surrounding natural desert landscape. The color palette, along with the Project design as a whole, shall also be reviewed to assure conformance with the development standards of the Hesperia Municipal Code and the Main Street and Freeway Corridor Specific Plan in order to promote the visual character and quality of the surrounding area.

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

The Project could result in **no impact** to scenic highways. No mitigation is required.

Threshold C. Would the Project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality?

The Project could result in potentially significant impacts to visual character or quality. MM-AES-1 would be implemented, and Project impacts would be **less than significant with mitigation incorporated**.

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

The Project could result in **less-than-significant impacts** to light and glare. No mitigation is required.

Threshold E: Would the Project result in cumulatively considerable impacts with regard to aesthetic and visual considerations?

The Project could contribute to a potential cumulatively considerable impact to aesthetic and visual considerations. MM-AES-1 would be implemented, and Project impacts would be **less than significant with mitigation incorporated**.

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4.2 Air Quality

This section describes the existing air quality conditions of the Hesperia Commerce Center II Project (Project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the Project.

In addition to the documents incorporated by reference (see Section 2.7 of Chapter 2 of this Draft Environmental Impact Report [EIR]), the following analysis is based, in part, on the following sources:

- *Air Quality Impact Analysis* prepared by Urban Crossroads in July 2020 (Appendix C-1).
- *Health Risk Assessment* prepared by Urban Crossroads in July 2020 (Appendix C-2).
- *Health Effects of Criteria Air Pollutants Associated with the Hesperia Commerce Center II Project* prepared by Dudek in August 2020 (Appendix C-3).
- *Traffic Impact Analysis* prepared by Urban Crossroads in June 2020 (Appendix K-1).

4.2.1 Existing Conditions

Meteorological and Topographical Conditions

The Project site is located within the Mojave Desert Air Basin (MDAB).[1] The MDAB includes the desert portions of Los Angeles, Kern, San Bernardino, and Riverside Counties. Most of this area is commonly referred to as the high desert because elevations range from approximately 2,000 to 5,000 feet above mean sea level. The MDAB is generally above the regional inversion layer and experiences relatively good dispersion conditions.

The MDAB is separated from Southern California coastal regions and Central California valley regions by mountains extending up to 10,000 feet above mean sea level. As a result, the Mojave Desert is removed from the cooling effects of the Pacific Ocean and is characterized by extreme temperatures. The MDAB consists of an assemblage of mountain ranges interspersed with valleys that often contain dry lakes. Lower-elevation mountains scattered throughout the basin are generally 1,000 feet to 4,000 feet high. Mountain passes form channels for air masses flowing from the west and southwest and the prevailing winds from the west and southwest are caused by the proximity of the MDAB to coastal and central regions and to the blocking effect of the Sierra Nevada to the north.

This MDAQMD region is characterized by hot, dry summers and cool winters, with little precipitation. During the summer, the MDAB is generally influenced by a Pacific subtropical high-pressure cell that resides off the coast of California. This high-pressure cell prevents cloud formation and engenders daytime solar heating. The MDAB is rarely influenced by the cold air masses that move south from Canada and Alaska, as these frontal systems diffuse by the time they reach the basin. Most moisture arrives in frequent warm, moist, unstable air masses from the south. The MDAB averages between 3 and 7 inches of precipitation per year (from 16 to 30 days with at least 0.01 inches of precipitation). The Victorville California Irrigation Management Information System station estimates an average annual precipitation of 7.3 inches over an average of 29 days of precipitation per year. The MDAB is

[1] The description of the MDAB climate and topography is based on the MDAQMD 2016 CEQA and Federal Conformity Guidelines (MDAQMD 2016). The description of the Western Mojave Desert O_3 nonattainment area is based the MDAQMD Federal 8-Hour Ozone Attainment Plan for the Western Mojave Desert Non-Attainment Area (MDAQMD 2008).

classified as a dry–hot desert climate, with portions classified as dry–very hot desert, to indicate at least 3 months have maximum average temperatures over 100.4°F.

The Project is also located within the MDAQMD portion of the Western Mojave Desert O_3 nonattainment area, which includes the following San Bernardino County communities: Phelan, Hesperia, Adelanto, Victorville, Apple Valley, Barstow, Joshua Tree, Yucca Valley, and Twentynine Palms (the southwestern portion of the MDAQMD).

Pollutants and Effects

Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established minimum ambient air quality standards, or criteria, for outdoor pollutant concentrations in order to protect public health. The federal and state standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), PM_{10}, particulate matter with an aerodynamic diameter equal to or less than 2.5 microns ($PM_{2.5}$), and lead (Pb). These pollutants, as well as toxic air contaminants (TACs), are discussed as follows.[2] In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

Ozone. O_3 is a strong-smelling, pale blue, reactive, toxic chemical gas consisting of three oxygen atoms. It is a secondary pollutant formed in the atmosphere by a photochemical process involving the sun's energy and O_3 precursors. These precursors are mainly oxides of nitrogen (NO_x) and volatile organic compounds (VOCs) (also referred to as reactive organic gases [ROG]). The maximum effects of precursor emissions on O_3 concentrations usually occur several hours after they are emitted and many miles from the source. Meteorology and terrain play major roles in O_3 formation, and ideal conditions occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. O_3 exists in the upper atmosphere O_3 layer (stratospheric O_3) and at Earth's surface in the lower atmosphere (tropospheric O_3).[3] The O_3 that the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) regulate as a criteria air pollutant is produced close to ground level, where people live, exercise, and breathe. Ground-level O_3 is a harmful air pollutant that causes numerous adverse health effects and is thus considered "bad" O_3. Stratospheric, or "good," O_3 occurs naturally in the upper atmosphere, where it reduces the amount of ultraviolet light (i.e., solar radiation) entering the Earth's atmosphere. Without the protection of the beneficial stratospheric O_3 layer, plant and animal life would be seriously harmed.

O_3 in the troposphere causes numerous adverse health effects; short-term exposures (lasting for a few hours) to O_3 can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes (EPA 2013). Inhalation of O_3 causes inflammation and irritation of the tissues lining human airways, causing and worsening a variety of symptoms. Exposure to O_3 can reduce the volume of air that the lungs breathe in and can cause shortness of breath. O_3 in sufficient doses increases the permeability of lung cells, rendering them more susceptible to toxins and microorganisms. The occurrence and severity of health effects from O_3 exposure vary widely among individuals,

[2] The descriptions of the criteria air pollutants and associated health effects are based on the U.S. Environmental Protection Agency's "Criteria Air Pollutants" (EPA 2018a), as well as the California Air Resources Board's "Glossary" (CARB 2019a) and "Fact Sheet: Air Pollution Sources, Effects and Control" (CARB 2009).

[3] The troposphere is the layer of Earth's atmosphere nearest to the surface of Earth, extending outward approximately 5 miles at the poles and approximately 10 miles at the equator.

even when the dose and the duration of exposure are the same. Research shows adults and children who spend more time outdoors participating in vigorous physical activities are at greater risk from the harmful health effects of O_3 exposure. While there are relatively few studies of O_3's effects on children, the available studies show that children are no more or less likely to suffer harmful effects than adults. However, there are a number of reasons why children may be more susceptible to O_3 and other pollutants. Children and teens spend nearly twice as much time outdoors and engaged in vigorous activities as adults. Children breathe more rapidly than adults and inhale more pollution per pound of their body weight than adults. Also, children are less likely than adults to notice their own symptoms and avoid harmful exposures. Further research may be able to better distinguish between health effects in children and adults. Children, adolescents, and adults who exercise or work outdoors, where O_3 concentrations are the highest, are at the greatest risk of harm from this pollutant (CARB 2019b).

Nitrogen Dioxide. NO_2 is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO_2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NO), which is a colorless, odorless gas. NO_x, which includes NO_2 and NO, plays a major role, together with VOC, in the atmospheric reactions that produce O_3. NO_x is formed from fuel combustion under high temperature or pressure. In addition, NO_2 is an important precursor to acid rain and may affect both terrestrial and aquatic ecosystems. The two major emissions sources are transportation and stationary fuel combustion sources (such as electric utility and industrial boilers).

A large body of health science literature indicates that exposure to NO_2 can induce adverse health effects. The strongest health evidence, and the health basis for the ambient air quality standards (AAQS) for NO_2, results from controlled human exposure studies that show that NO_2 exposure can intensify responses to allergens in allergic asthmatics. In addition, a number of epidemiological studies have demonstrated associations between NO_2 exposure and premature death, cardiopulmonary effects, decreased lung function growth in children, respiratory symptoms, emergency room visits for asthma, and intensified allergic responses. Infants and children are particularly at risk because they have disproportionately higher exposure to NO_2 than adults due to their greater breathing rate for their body weight and their typically greater outdoor exposure duration. Several studies have shown that long-term NO_2 exposure during childhood, the period of rapid lung growth, can lead to smaller lungs at maturity in children with higher compared to lower levels of exposure. In addition, children with asthma have a greater degree of airway responsiveness compared with adult asthmatics. In adults, the greatest risk is to people who have chronic respiratory diseases, such as asthma and chronic obstructive pulmonary disease (CARB 2019c).

Carbon Monoxide. CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, or fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, automobile exhaust accounts for the majority of CO emissions. CO is a nonreactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions—primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, which is a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent.

CO is harmful because it binds to hemoglobin in the blood, reducing the ability of blood to carry oxygen. This interferes with oxygen delivery to the body's organs. The most common effects of CO exposure are fatigue, headaches, confusion and reduced mental alertness, light-headedness, and dizziness due to inadequate oxygen delivery to the brain. For people with cardiovascular disease, short-term CO exposure can further reduce their body's already compromised ability to respond to the increased oxygen demands of exercise, exertion, or stress.

Inadequate oxygen delivery to the heart muscle leads to chest pain and decreased exercise tolerance. Unborn babies whose mothers experience high levels of CO exposure during pregnancy are at risk of adverse developmental effects. Unborn babies, infants, elderly people, and people with anemia or with a history of heart or respiratory disease are most likely to experience health effects with exposure to elevated levels of CO (CARB 2019d).

Sulfur Dioxide. SO_2 is a colorless, pungent gas formed primarily from incomplete combustion of sulfur-containing fossil fuels. The main sources of SO_2 are coal and oil used in power plants and industries; as such, the highest levels of SO_2 are generally found near large industrial complexes. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels.

Controlled human exposure and epidemiological studies show that children and adults with asthma are more likely to experience adverse responses with SO_2 exposure, compared with the non-asthmatic population. Effects at levels near the 1-hour standard are those of asthma exacerbation, including bronchoconstriction accompanied by symptoms of respiratory irritation such as wheezing, shortness of breath, and chest tightness, especially during exercise or physical activity. Also, exposure at elevated levels of SO_2 (above 1 parts per million [ppm]) results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality. The elderly and people with cardiovascular disease or chronic lung disease (such as bronchitis or emphysema) are most likely to experience these adverse effects (CARB 2019e).

Particulate Matter. Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. $PM_{2.5}$ and PM_{10} represent fractions of particulate matter. Coarse particulate matter (PM_{10}) is about 1/7 the thickness of a human hair. Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. Fine particulate matter ($PM_{2.5}$) is roughly 1/28 the diameter of a human hair. $PM_{2.5}$ results from fuel combustion (e.g., from motor vehicles, power generation, and industrial facilities), residential fireplaces, and woodstoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as sulfur oxides, NO_x, and VOCs.

A number of adverse health effects have been associated with exposure to both $PM_{2.5}$ and PM_{10}. For $PM_{2.5}$, short-term exposures (up to 24-hour duration) have been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days. These adverse health effects have been reported primarily in infants, children, and older adults with preexisting heart or lung diseases. In addition, of all of the common air pollutants, $PM_{2.5}$ is associated with the greatest proportion of adverse health effects related to air pollution, both in the United States and worldwide based on the World Health Organization's Global Burden of Disease Project. Short-term exposures to PM_{10} have been associated primarily with worsening of respiratory diseases, including asthma and chronic obstructive pulmonary disease, leading to hospitalization and emergency department visits (CARB 2017).

Long-term exposure (months to years) to $PM_{2.5}$ has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children. The effects of long-term exposure to PM_{10} are less clear, although several studies suggest a link between long-term PM_{10} exposure and respiratory mortality. The International Agency for Research on Cancer published a review in 2015 that concluded that particulate matter in outdoor air pollution causes lung cancer (CARB 2017).

Lead. Lead in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturing of batteries, paints, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phase out of leaded gasoline reduced the overall inventory of airborne lead by nearly 95%. With the phase out of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emissions sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and, in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood, because children are highly susceptible to the effects of lead. Such exposures are associated with decrements in neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time, and growth.

Sulfates. Sulfates are the fully oxidized form of sulfur, which typically occur in combination with metals or hydrogen ions. Sulfates are produced from reactions of SO_2 in the atmosphere. Sulfates can result in respiratory impairment, as well as reduced visibility.

Vinyl Chloride. Vinyl chloride is a colorless gas with a mild, sweet odor, which has been detected near landfills, sewage plants, and hazardous waste sites, due to the microbial breakdown of chlorinated solvents. Short-term exposure to high levels of vinyl chloride in air can cause nervous system effects, such as dizziness, drowsiness, and headaches. Long-term exposure through inhalation can cause liver damage, including liver cancer.

Hydrogen Sulfide. Hydrogen sulfide is a colorless and flammable gas that has a characteristic odor of rotten eggs. Sources of hydrogen sulfide include geothermal power plants, petroleum refineries, sewers, and sewage treatment plants. Exposure to hydrogen sulfide can result in nuisance odors, as well as headaches and breathing difficulties at higher concentrations.

Visibility-Reducing Particles. Visibility-reducing particles are any particles in the air that obstruct the range of visibility. Effects of reduced visibility can include obscuring the viewshed of natural scenery, reducing airport safety, and discouraging tourism. Sources of visibility-reducing particles are the same as for $PM_{2.5}$ described above.

Volatile Organic Compounds. Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of O_3 are referred to and regulated as VOCs. Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the main sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

The primary health effects of VOCs result from the formation of O_3 and its related health effects. High levels of VOCs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered TACs. There are no separate health standards for VOCs as a group.

Non-Criteria Air Pollutants

Toxic Air Contaminants. A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic noncancer health effects. A toxic substance released into the air is considered a TAC. TACs are identified by federal and state agencies based on a review of available scientific evidence. In California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics "Hot Spots" Information and Assessment Act, Assembly

Bill (AB) 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years.

Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources, such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources, such as automobiles; and area sources, such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

Diesel Particulate Matter. Diesel particulate matter (DPM) is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases, gas and particle, both of which contribute to health risks. More than 90% of DPM is less than 1 micrometer in diameter (about 1/70 the diameter of a human hair), and thus is a subset of $PM_{2.5}$ (CARB 2019f). DPM is typically composed of carbon particles (soot, also called black carbon) and numerous organic compounds, including over 40 known carcinogenic organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene (CARB 2019f). In August 1998, CARB classified "particulate emissions from diesel-fueled engines" (i.e., DPM) (17 CCR 93000) as a TAC. DPM is emitted from a broad range of diesel engines: on-road diesel engines of trucks, buses, and cars and off-road diesel engines including locomotives, marine vessels, and heavy-duty construction equipment, among others. Approximately 70% of all airborne cancer risk in California is associated with DPM (CARB 2000). To reduce the cancer risk associated with DPM, CARB adopted a diesel risk reduction plan in 2000 (CARB 2000). Because it is part of $PM_{2.5}$, DPM also contributes to the same noncancer health effects as $PM_{2.5}$ exposure. These effects include premature death; hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma; increased respiratory symptoms; and decreased lung function in children. Several studies suggest that exposure to DPM may also facilitate development of new allergies (CARB 2019f). Those most vulnerable to noncancer health effects are children, whose lungs are still developing, and the elderly, who often have chronic health problems.

Odorous Compounds. Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population and overall is quite subjective. People may have different reactions to the same odor. An odor that is offensive to one person may be perfectly acceptable to another (e.g., coffee roaster). An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. In a phenomenon known as odor fatigue, a person can become desensitized to almost any odor, and recognition may only occur with an alteration in the intensity. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors.

Valley Fever. Coccidioidomycosis, more commonly known as "Valley Fever," is an infection caused by inhalation of the spores of the *Coccidioides immitis* fungus, which grows in the soils of the southwestern United States. The ecologic factors that appear to be most conducive to survival and replication of the spores are high summer temperatures, mild winters, sparse rainfall, and alkaline, sandy soils.

San Bernardino County is not considered a highly endemic region for Valley Fever as the latest report from the California Department of Public Health listed San Bernardino County as having 1.8 cases per 100,000 people (CDPH 2017).

Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. Facilities and structures where these air pollution-sensitive people live or spend considerable amounts of time are known as sensitive receptors. Land uses where air pollution-sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (sensitive sites or sensitive land uses) (CARB 2005). The MDAQMD identifies sensitive receptors as residences, schools, playgrounds, childcare centers, and medical facilities (MDAQMD 2016). The nearest sensitive receptor is a residence at 11345 Phelan Road, approximately 217 feet south of the Project site.

Local Ambient Air Quality

Mojave Desert Air Basin Attainment Designation

Pursuant to the 1990 federal Clean Air Act amendments, the EPA classifies air basins (or portions thereof) as "attainment" or "nonattainment" for each criteria air pollutant, based on whether the NAAQS have been achieved. Generally, if the recorded concentrations of a pollutant are lower than the standard, the area is classified as "attainment" for that pollutant. If an area exceeds the standard, the area is classified as "nonattainment" for that pollutant. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated as "unclassified" or "unclassifiable." The designation of "unclassifiable/attainment" means that the area meets the standard or is expected to meet the standard despite a lack of monitoring data. Areas that achieve the standards after a nonattainment designation are re-designated as maintenance areas and must have approved maintenance plans to ensure continued attainment of the standards. The California Clean Air Act, like its federal counterpart, called for the designation of areas as "attainment" or "nonattainment," but based on CAAQS rather than the NAAQS. Table 4.2-1 depicts the current attainment status of the Project area with respect to the NAAQS and CAAQS. The criteria air pollutant attainment classifications for the area of the MDAB in which the Project is located are outlined in Table 4.2-1. Notably, the MDAB has experienced a substantial reduction in maximum 8-hour concentrations of O_3, as well as reductions in PM_{10}, over time from strategies including implementation of Reasonable Available Control Technology, vehicle emission standards, and other measures, as described in the respective MDAQMD O_3 attainment plan (MDAQMD 2008) and PM_{10} attainment demonstration and maintenance plan (MDAQMD 1995).

Table 4.2-1. Mojave Desert Air Basin Attainment Classification

Pollutant	Designation/Classification[1]	
	Federal Standards	*State Standards*
O_3 – 1 hour	No federal standard	**Nonattainment**
O_3 – 8 hours	**Severe nonattainment[2]**	**Nonattainment**
NO_2	Unclassifiable/attainment	Attainment
CO	Unclassifiable/attainment	Attainment
SO_2	Unclassifiable/attainment	Attainment
PM_{10}	**Moderate nonattainment[3]**	**Nonattainment**
$PM_{2.5}$	Unclassifiable/attainment	Attainment[4]
Lead	Unclassifiable/attainment	Attainment
Hydrogen sulfide	No federal standard	Unclassified[5]
Sulfates	No federal standard	Attainment

Table 4.2-1. Mojave Desert Air Basin Attainment Classification

Pollutant	Designation/Classification[1]	
	Federal Standards	*State Standards*
Visibility-reducing particles	No federal standard	Unclassified
Vinyl chloride	No federal standard	No designation

Sources: EPA 2020a (federal); CARB 2020a (state).
Notes: O_3 = ozone; NO_2 = nitrogen dioxide; CO = carbon monoxide; SO_2 = sulfur dioxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter.
Definitions: attainment = meets the standards; attainment/maintenance = achieve the standards after a nonattainment designation; nonattainment = does not meet the standards; unclassified or unclassifiable = insufficient data to classify; unclassifiable/attainment = meets the standard or is expected to be meet the standard despite a lack of monitoring data.
1 Designations/classifications in **bold** type indicate nonattainment.
2 West Mojave Desert portion of the basin, where the Project is located, is designated severe nonattainment. The Kern County portion of the MDAB is designated moderate nonattainment, and the remaining areas of the MDAB are designated unclassifiable/attainment.
3 The Project is located in an area designated moderate nonattainment in the MDAB.
4 The Project is located in an area designated attainment in the MDAB.
5 The entire MDAB is designated unclassified, except for the Searles Valley portion of the basin, which is designated nonattainment.

In summary, the Project is located in an area of the MDAB that is designated as a nonattainment area for federal and state O_3 standards and federal and state PM_{10} standards, and unclassifiable/attainment for all other criteria air pollutants (EPA 2020a; CARB 2020a).

Local Ambient Air Quality Conditions

CARB, air districts, and other agencies monitor ambient air quality at approximately 250 air quality monitoring stations across the state. The MDAQMD monitors local ambient air quality in the Project area. Air quality monitoring stations usually measure pollutant concentrations 10 feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. The most recent background ambient air quality data from 2016 to 2018 are presented in Table 4.2-2. The Hesperia monitoring station, located at 17288 Olive St., Hesperia, California, is the nearest air quality monitoring station to the Project site, located approximately 6.7 miles east of the Project. The data collected at this station are considered representative of the air quality experienced in the Project vicinity. Air quality data for O_3 and PM_{10} from the Hesperia monitoring station are provided in Table 4.2-2. Because CO, $PM_{2.5}$ NO_2, and SO_2 measurements are not monitored at the Hesperia monitoring station, the measurements were taken from the Victorville monitoring station (14306 Park Avenue, Victorville, California, approximately 7.0 miles northeast of the Project site). The number of days exceeding the ambient air quality standards is also shown in Table 4.2-2.

Table 4.2-2. Local Ambient Air Quality Data

Monitoring Station	Unit	Averaging Time	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year			Exceedances by Year		
					2016	*2017*	*2018*	*2016*	*2017*	*2018*
Ozone (O_3)										
Hesperia	ppm	Maximum 1-hour concentration	State	0.09	0.119	0.114	0.113	25	18	9
	ppm	Maximum 8-hour concentration	State	0.070	0.099	0.094	0.100	70	78	73
			Federal	0.070	0.098	0.094	0.100	65	75	71

Table 4.2-2. Local Ambient Air Quality Data

Monitoring Station	Unit	Averaging Time	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year			Exceedances by Year		
					2016	*2017*	*2018*	*2016*	*2017*	*2018*
Nitrogen Dioxide (NO_2)										
Victorville	ppm	Maximum 1-hour concentration	State	0.18	0.097	0.057	0.051	0	0	0
			Federal	0.100	0.097	0.057	0.051	0	0	0
	ppm	Annual concentration	State	0.030	0.010	0.012	0.011	0	0	0
			Federal	0.053	0.010	0.012	0.011	0	0	0
Carbon Monoxide (CO)										
Victorville	ppm	Maximum 1-hour concentration	State	20	11.6	1.5	1.4	0	0	0
			Federal	35	11.6	1.5	1.4	0	0	0
	ppm	Maximum 8-hour concentration	State	9.0	2.6	1.2	1.1	0	0	0
			Federal	9	2.6	1.2	1.1	0	0	0
Sulfur Dioxide (SO_2)										
Victorville	ppm	Maximum 1-hour concentration	Federal	0.075	0.006	0.028	0.010	0	0	0
	ppm	Maximum 24-hour concentration	Federal	0.14	0.002	0.002	0.003	0	0	0
	ppm	Annual concentration	Federal	0.030	0.001	0.001	0.001	0	0	0
Coarse Particulate Matter (PM_{10})[1]										
Hesperia	µg/ m^3	Maximum 24-hour concentration	State	50	203.5	—	—	9.1 (9)	—	—
			Federal	150	203.5	163.6	138.9	1.0 (1)	2.0 (2)	0.0 (0)
	µg/ m^3	Annual concentration	State	20	25.3	26.9	27.8	—	—	—
Fine Particulate Matter ($PM_{2.5}$)[1]										
Victorville	µg/ m^3	Maximum 24-hour concentration	Federal	35	41.5	27.2	32.7	1.0 (1)	0.0 (0)	0.0 (0)
	µg/ m^3	Annual concentration	State	12	7.5	8.8	8.7	0	0	0
			Federal	12.0	7.4	8.7	7.9	0	0	0

Sources: CARB 2020b; EPA 2020b.

Notes: — = not available; µg/m3 = micrograms per cubic meter; ppm = parts per million

Data taken from CARB iADAM (http://www.arb.ca.gov/adam) and EPA AirData (http://www.epa.gov/airdata/) represent the highest concentrations experienced over a given year.

Exceedances of federal and state standards are only shown for O_3 and particulate matter. Daily exceedances for particulate matter are estimated days because PM_{10} and $PM_{2.5}$ are not monitored daily. All other criteria pollutants did not exceed federal or state standards during the years shown. There is no federal standard for 1-hour ozone, annual PM_{10}, or 24-hour SO_2, nor is there a state 24-hour standard for $PM_{2.5}$.

[1] Measurements of PM_{10} and $PM_{2.5}$ are usually collected every 6 days and every 1 to 3 days, respectively. Number of days exceeding the standards is a mathematical estimate of the number of days concentrations would have been greater than the level of the standard had each day been monitored. The numbers in parentheses are the measured number of samples that exceeded the standard.

4.2.2 Relevant Plans, Policies, and Ordinances

Federal

Criteria Air Pollutants

The federal Clean Air Act, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The EPA is responsible for implementing most aspects of the Clean Air Act, including setting National Ambient Air Quality Standards (NAAQS) for major air pollutants; setting hazardous air pollutant (HAP) standards; approving state attainment plans; setting motor vehicle emission standards; issuing stationary source emission standards and permits; and establishing acid rain control measures, stratospheric O_3 protection measures, and enforcement provisions. Under the Clean Air Act, NAAQS are established for the following criteria pollutants: O_3, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead.

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the public. The NAAQS (other than for O_3, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for O_3, NO_2, SO_2, PM_{10}, and $PM_{2.5}$ are based on statistical calculations over 1- to 3-year periods, depending on the pollutant. The Clean Air Act requires the EPA to reassess the NAAQS at least every 5 years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a state implementation plan that demonstrates how those areas will attain the standards within mandated time frames.

Hazardous Air Pollutants

The 1977 federal Clean Air Act amendments required the EPA to identify national emission standards for hazardous air pollutants to protect public health and welfare. HAPs include certain volatile organic chemicals, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 federal Clean Air Act amendments, which expanded the control program for HAPs, 189 substances and chemical families were identified as HAPs.

State

Criteria Air Pollutants

The federal Clean Air Act delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to CARB, with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB has established California Ambient Air Quality Standards (CAAQS), which are generally more restrictive than the NAAQS. The CAAQS describe adverse conditions; that is, pollution levels must be below these standards before an air basin can attain the standard. Air quality is considered "in attainment" if pollutant levels are continuously below the CAAQS and violate the standards no more than once each year. The CAAQS for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, PM_{10}, and $PM_{2.5}$ and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. The NAAQS and CAAQS are presented in Table 4.2-3.

Table 4.2-3. Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[a]	National Standards[b]	
		Concentration[c]	*Primary*[c,d]	*Secondary*[c,e]
O_3	1 hour	0.09 ppm (180 µg/m³)	—	Same as primary standard[f]
	8 hours	0.070 ppm (137 µg/m³)	0.070 ppm (137 µg/m³)[f]	
NO_2[g]	1 hour	0.18 ppm (339 µg/m³)	0.100 ppm (188 µg/m³)	Same as primary standard
	Annual arithmetic mean	0.030 ppm (57 µg/m³)	0.053 ppm (100 µg/m³)	
CO	1 hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)	None
	8 hours	9.0 ppm (10 mg/m³)	9 ppm (10 mg/m³)	
SO_2[h]	1 hour	0.25 ppm (655 µg/m³)	0.075 ppm (196 µg/m³)	—
	3 hours	—	—	0.5 ppm (1,300 µg/m³)
	24 hours	0.04 ppm (105 µg/m³)	0.14 ppm (for certain areas)[g]	—
	Annual	—	0.030 ppm (for certain areas)[g]	—
PM_{10}[i]	24 hours	50 µg/m³	150 µg/m³	Same as primary standard
	Annual arithmetic mean	20 µg/m³	—	
$PM2.5$[i]	24 hours	—	35 µg/m³	Same as primary standard
	Annual arithmetic mean	12 µg/m³	12.0 µg/m³	15.0 µg/m³
Lead[j,k]	30-day average	1.5 µg/m³	—	—
	Calendar quarter	—	1.5 µg/m³ (for certain areas)[k]	Same as primary standard
	Rolling 3-month average	—	0.15 µg/m³	
Hydrogen sulfide	1 hour	0.03 ppm (42 µg/m³)	—	—
Vinyl chloride[j]	24 hours	0.01 ppm (26 µg/m³)	—	—
Sulfates	24 hours	25 µg/m³	—	—
Visibility reducing particles	8 hours (10:00 a.m. to 6:00 p.m. PST)	Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to the number of particles when the relative humidity is less than 70%	—	—

Source: CARB 2016.

Notes: O_3 = ozone; ppm = parts per million by volume; µg/m³ = micrograms per cubic meter; NO_2 = nitrogen dioxide; CO = carbon monoxide; mg/m³= milligrams per cubic meter; SO_2 = sulfur dioxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; PST = Pacific Standard Time.

[a] California standards for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, suspended particulate matter (PM_{10}, $PM_{2.5}$), and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b] National standards (other than O_3, NO_2, SO_2, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once per year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than 1. For $PM_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

[c] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[d] National primary standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

[e] National secondary standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[f] On October 1, 2015, the national 8-hour O_3 primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[g] To attain the national 1-hour standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (ppb). Note that the national 1-hour standard is in units of ppb. California standards are in units of ppm. To directly compare the national 1-hour standard to the California standards, the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[h] On June 2, 2010, a new 1-hour SO_2 standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the national 1-hour standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment of the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

[i] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m³ were also retained. The form of the annual primary and secondary standards is the annual mean averaged over 3 years.

[j] CARB has identified lead and vinyl chloride as TACs with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[k] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

Toxic Air Contaminants

The state Air Toxics Program was established in 1983 under AB 1807 (Tanner). The California TAC list identifies more than 700 pollutants, of which carcinogenic and noncarcinogenic toxicity criteria have been established for a subset of these pollutants pursuant to the California Health and Safety Code. In accordance with AB 2728, the state list includes the (federal) HAPs. In 1987, the Legislature enacted the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) to address public concern over the release of TACs into the atmosphere. AB 2588 law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years. TAC emissions from individual facilities are quantified and prioritized. "High-priority" facilities are required to perform a health risk assessment (HRA), and if specific thresholds are exceeded, the facility operator is required to communicate the results to the public in the form of notices and public meetings.

In 2000, CARB approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines (CARB 2000). The regulation is anticipated to result in an 80% decrease in statewide diesel health risk in 2020 compared with the diesel risk in 2000. Additional regulations apply to new trucks and diesel fuel, including the On-Road Heavy Duty Diesel Vehicle (In-Use) Regulation, the On-Road Heavy Duty (New) Vehicle Program, the In-Use Off-Road Diesel Vehicle Regulation, and the New Off-Road Compression-Ignition (Diesel) Engines and Equipment Program. These regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel-powered equipment. There

are several airborne toxic control measures that reduce diesel emissions, including In-Use Off-Road Diesel-Fueled Fleets (13 CCR 2449 et seq.) and In-Use On-Road Diesel-Fueled Vehicles (13 CCR 2025).

California Health and Safety Code Section 41700

Section 41700 of the California Health and Safety Code states that a person shall not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or that endanger the comfort, repose, health, or safety of any of those persons or the public; or that cause, or have a natural tendency to cause, injury or damage to business or property. This section also applies to sources of objectionable odors.

Local

Mojave Desert Air Quality Management District

The MDAQMD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the San Bernardino County portion of the MDAB, where the Project is located. The MDAQMD operates monitoring stations in the MDAB, develops rules and regulations for stationary sources and equipment, prepares emissions inventory and air quality management planning documents, and conducts source testing and inspections. The MDAQMD's air quality management plans include control measures and strategies to be implemented to attain state and federal ambient air quality standards in the MDAB. The MDAQMD then implements these control measures as regulations to control or reduce criteria pollutant emissions from stationary sources or equipment. The MDAQMD's most recent air quality plans are the PM_{10} attainment demonstration and maintenance plan (MDAQMD 1995) and the O_3 attainment plan (MDAQMD 2008).

Applicable Rules. Emissions that would result from mobile, area, and stationary sources during construction and operation of the Project are subject to the rules and regulations of the MDAQMD. The MDAQMD rules applicable to the Project may include, but are not limited to, the following:

- **Rule 401 – Visible Emissions:** This rule establishes the limit for visible emissions from stationary sources.
- **Rule 402 – Nuisance:** This rule prohibits the discharge of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any such persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property.
- **Rule 403.2 – Fugitive Dust Control for the Mojave Desert Planning Area (MDPA):** This rule ensures that the NAAQS for PM_{10} will not be exceeded due to anthropogenic sources of fugitive dust within the MDPA and implements the control measures contained in the Mojave Desert Planning Area Federal PM_{10} Attainment Plan.
- **Rule 431 – Sulfur Content of Liquid Fuels:** The purpose of this rule is to limit the sulfur content in diesel and other liquid fuels for the purpose of reducing the formation of SO_x and particulates during combustion and of enabling the use of add-on control devices for diesel-fueled internal combustion engines. The rule applies to all refiners, importers, and other fuel suppliers such as distributors, marketers, and retailers, as well as to users of diesel, low-sulfur diesel, and other liquid fuels for stationary-source applications in the MDAQMD. The rule also affects diesel fuel supplied for mobile sources.

City of Hesperia General Plan

The City of Hesperia General Plan contains the following goals and policies applicable to air quality and the Project (City of Hesperia 2010):

Conservation Element

Goal CN-8 Implement policies and measures to reduce air pollution and emissions of pollutants.

- **Policy CN-8.1** Implement measures to reduce fugitive dust from unpaved areas, parking lots, and construction sites.
- **Policy CN-8.2** Implement measures to reduce exhaust emissions from construction equipment.
- **Policy CN-8.5** Minimize exposure of sensitive receptor land uses and sites to health risks related to air pollution.

4.2.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to air quality are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to air quality would occur if the Project would:

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 non-attainment 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.
E. Result in cumulatively considerable air quality impacts.

Appendix G of the CEQA Guidelines indicates that, where available, significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to determine whether the Project would have a significant impact on air quality. As outlined in the MDAQMD's *CEQA and Federal Conformity Guidelines* (MDAQMD 2016), a project would result in a significant environmental impact if it:

1. Would generate total emissions (direct and indirect) in excess of the established significance thresholds (presented as Table 4.2-4)
2. Would generate a violation of any ambient air quality standard when added to the local background
3. Does not conform with the applicable attainment or maintenance plan
4. Would expose sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million (10×10^{-6}) and/or a hazard index (noncarcinogenic) greater than or equal to 1

Residences, schools, daycare centers, playgrounds, and medical facilities are considered sensitive receptor land uses. The following project types proposed for sites within the specified distance to an existing or planned sensitive receptor land use must be evaluated using Threshold 4:

- Any industrial project within 1,000 feet
- A distribution center (40 or more trucks per day) within 1,000 feet
- A major transportation project (50,000 or more vehicles per day) within 1,000 feet
- A dry cleaner using perchloroethylene within 500 feet
- A gasoline dispensing facility within 300 feet

The MDAQMD *CEQA Air and Federal Conformity Guidelines* (MDAQMD 2016) sets forth quantitative emission significance thresholds for criteria air pollutants below which a project would not have a significant impact on ambient air quality. Project-related air quality emissions estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in Table 4.2-4 are exceeded. The emission-based thresholds for O_3 precursors are intended to serve as a surrogate for an "ozone significance threshold" (i.e., the potential for adverse O_3 impacts to occur) because O_3 itself is not emitted directly. MDAQMD recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions.

Table 4.2-4. Mojave Desert Air Quality Management District Daily Air Quality Significance Thresholds

Pollutant	Daily Threshold (pounds per day)
VOC	137
NO_x	137
CO	548
SO_x	137
PM_{10}	82
$PM_{2.5}$	65
Hydrogen sulfide[1]	54
Lead[1]	3

Source: MDAQMD 2016.

Notes: MDAQMD = Mojave Desert Air Quality Management District; VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter.

1 The Project includes typical equipment and on-road vehicles, which result in negligible (if any) emissions of hydrogen sulfide and lead. Therefore, these pollutants are not discussed in this analysis.

Regarding localized CO, although the MDAQMD does not have screening levels for intersection traffic that could result in potential CO hotspots, several other air districts have established these levels, which are described below to provide context of the magnitude of hourly volumes that could result in significant localized CO:

- The South Coast Air Quality Management District (SCAQMD) conducted CO modeling for its 2003 Air Quality Management Plan (SCAQMD 2003a) for the four worst-case intersections in the South Coast Air Basin. At the time the 2003 Air Quality Management Plan was prepared, the intersection of Wilshire Boulevard and Veteran Avenue was the most congested intersection in Los Angeles County, with an average daily traffic volume of approximately 100,000 vehicles per day. Using CO emission factors for 2002, the peak modeled CO 1-hour concentration was estimated to be 4.6 ppm at the intersection of Wilshire Boulevard and Veteran Avenue. Accordingly, CO concentrations at congested intersections would not exceed the 1-hour or 8-hour CO CAAQS unless projected daily traffic would be at least more than 100,000 vehicles per day.
- The Bay Area Air Quality Management District (BAAQMD) determined that projects would result in a less-than-significant impact to localized CO concentrations if (1) project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour, or (2) 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) (BAAQMD 2017).

Based on the Project's proximity to the South Coast Air Basin, the SCAQMD screening criterion of 100,000 vehicles per hour has been applied to this Project as a metric to evaluate CO hotspots.

Methodology

Emissions from construction and operation of the Project and existing land uses were estimated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2.[4] Notably, the latest version of CalEEMod uses vehicle

4 CalEEMod is a statewide computer model developed in cooperation with air districts throughout the state to quantify criteria air pollutant emissions associated with the construction and operational activities from a variety of land use projects, such as residential, commercial, and industrial facilities. CalEEMod input parameters, including the Project land use type and size and construction schedule were based on information provided by the Project Applicant, or default model assumptions if Project specifics were unavailable.

emission rates obtained from the EMissions FACtor model (EMFAC) 2014 web database. EMFAC2014 emission rates of all vehicle categories are based on aggregated model year and aggregated speed for all counties, air basins, air districts and statewide average for 31 scenario years that each includes three seasons (annual, summer, and winter). Notably, the EPA approved the 2017 version of the EMFAC web database on August 19, 2019. Emission factors from EMFAC2017 were incorporated into CalEEMod for this analysis.

Construction

Construction is expected to commence in January 2021 and will last through November 2021. Construction duration by phase is shown on Table 4.2-5. The construction schedule utilized in the analysis represents a "worst-case" analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per *CEQA Guidelines*. The duration of construction activity was based on the 2021 opening year.

Table 4.2-5. Construction Phasing Assumptions

Construction Phase	Start Date	End Date	Days
Site Preparation	01/04/2021	01/29/2021	20
Grading	01/30/2021	03/12/2021	30
Building Construction	03/13/2021	11/19/2021	180
Paving	07/03/2021	11/19/2021	100
Architectural Coating	04/24/2021	11/19/2021	150

Source: Appendix C-1.

Construction activities associated with the Project will result in emissions of VOCs, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$. Construction related emissions are expected from the following construction activities:

- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating
- Construction Workers Commuting

Dust is typically a major concern during grading activities. Because such emissions are not amenable to collection and discharge through a controlled source, they are called "fugitive emissions". Fugitive dust emissions rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). CalEEMod was utilized to calculate fugitive dust emissions resulting from this phase of activity. Based on consultation with the client, the Project site has been designed to balance soils on site (will not require import/export of soil).

Construction emissions for construction worker vehicles traveling to and from the Project site, as well as vendor trips (construction materials delivered to the Project site) were estimated based on information from CalEEMod defaults.

The off-road construction equipment fleet may vary due to specific Project needs at the time of construction. The associated construction equipment was generally based on CalEEMod defaults. A detailed summary of construction equipment assumptions by phase is provided at Table 4.2-6. Detailed modeling inputs/outputs are contained in Appendix C-1 of this analysis.

Table 4.2-6. Construction Equipment Assumptions

Construction Phase	Equipment	Number	Hours/Day
Site Preparation	Rubber Tired Dozers	3	8
	Tractors/Loaders/Backhoes	4	8
Grading	Excavators	2	8
	Graders	1	8
	Rubber Tired Dozers	1	8
	Scrapers	2	8
	Tractors/Loaders/Backhoes	2	8
Building Construction	Cranes	1	8
	Forklifts	3	8
	Generator Sets	1	8
	Tractors/Loaders/Backhoes	3	8
	Welders	1	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

Source: Appendix C-1.

Operation

Operational activities associated with the Project will result in emissions of VOCs, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$. Operational emissions would be expected from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions
- On-site Equipment Emissions

Area Sources Emissions

CalEEMod was used to estimate operational emissions from area sources, which include emissions from consumer product use, architectural coatings, and landscape maintenance equipment. Emissions associated with natural gas usage in space heating, water heating, and stoves are calculated in the building energy use module of CalEEMod, as described in the following text, and are not considered area sources.

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings such as in paints and primers used during building maintenance. CalEEMod calculates the VOC evaporative emissions from application of nonresidential surface coatings based on the VOC emission factor, the building square footage, the assumed

fraction of surface area, and the reapplication rate. The emissions associated with architectural coatings were calculated using CalEEMod default assumptions.

Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Many of these products contain organic compounds which when released in the atmosphere can react to form O_3 and other photochemically reactive pollutants. The emissions associated with use of consumer products were calculated based on assumptions provided in CalEEMod. In the case of the commercial uses proposed by the Project, no substantive on-site use of consumer products is anticipated.

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in CalEEMod.

Energy Source Emissions

As represented in CalEEMod, energy sources include emissions associated with building electricity and natural gas usage. Electricity use would contribute indirectly to criteria air pollutant emissions; however, the emissions from electricity use are only quantified for greenhouse gas emissions in CalEEMod, since criteria pollutant emissions would occur at the site of power plants, which are not on the Project site. However, natural gas combustion would occur at the Project site itself, in association with equipment that uses natural gas. The emissions associated with natural gas use were calculated using CalEEMod default parameters.

CalEEMod default values for energy consumption assume compliance with the 2016 Title 24 Building Energy Efficiency Standards. However, since the Project would be required to comply with the more stringent 2019 Title 24 Building Energy Efficiency Standards that became effective January 1, 2020, a 30% reduction in energy use was applied in CalEEMod based on the California Energy Commissions (CEC's) estimate that compared to the 2016 standards, "nonresidential buildings [built to 2019 standards] will use about 30% less energy due mainly to lighting upgrades" (CEC 2018).

Mobile Source Emissions

Project-related operational air quality impacts derive primarily from vehicle trips generated by the Project. Trip characteristics available from the report, Hesperia Commerce Center II Traffic Impact Analysis (TIA) (Appendix K-1) were utilized in this analysis. Two separate model runs were utilized for cars and trucks for each Project scenario in order to more accurately model emissions resulting from passenger car and truck operations.

The first run analyzed passenger car emissions, which incorporated the CalEEMod default trip length of 9.50 miles for passenger cars and an assumption of 100% primary trips. It is important to note that although the TIA does not breakdown passenger cars by type, this analysis assumes that passenger cars include Light-Duty-Auto vehicles (LDA), Light-Duty-Trucks (LDT1 and LDT2), and Medium-Duty-Vehicles (MDV) vehicle types. In order to account for emissions generated by passenger cars, the fleet mix presented in Table 4.2-7 was utilized in this analysis.

Table 4.2-7. Passenger Car Fleet Mix

Land Use	Vehicle Type	Percent[1]
High-Cube Fulfillment Center Warehouse/ General Light Industrial	LDA	62.06
	LDT1	4.19
	LDT2	20.27
	MDV	13.48

Source: Appendix C-1.

1 The Project-specific passenger car fleet mix used in this analysis is based on a proportional split utilizing the CalEEMod default percentage assigned to LDA, LDT1, LDT2, and MDV vehicle types.

The second run analyzed truck emissions, incorporated a truck trip length of 40 miles and an assumption of 100% primary trips. In order to be consistent with the TIA, trucks are broken down by truck type. The trucks are comprised of 2-axle/Light-Heavy-Duty Trucks (LHDT), 3-axle/Medium-Heavy-Duty Trucks (MHDT), and 4+-axle/Heavy-Heavy-Duty Trucks (HHDT). In order to account for emissions generated by trucks, the fleet mix presented in Table 4.2-8 was utilized in this analysis.

It should be noted that the TIA identifies two different truck categories for the high-cube fulfillment center warehouse use, 2-4-axle and 5+-axle trucks. CalEEMod categorizes trucks by truck type, not by axle-type. In order to account for emissions from LHDT, MHDT, and HHDT trucks, the analysis herein assumed that 25% of the 2-4 axle trucks are LHDT, 25% are MHDT, and the remaining 50% are HHDT.

Table 4.2-8. Truck Fleet Mix

Land Use	Vehicle Type	Percent[1]
High-Cube Fulfillment Center Warehouse	LHDT	10.71
	MHDT	10.71
	HHDT	78.57
General Light Industrial	LHDT	37.36
	MHDT	18.21
	HHDT	44.43

Source: Appendix C-1.

1 Project-specific truck fleet mix is based on the number of trips generated by each truck type (LHDT, MHDT, HHDT) relative to the total number of truck trips generated by the Project.

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust inclusive of break and tire wear particulates. The emissions estimates for travel on paved roads were calculated using CalEEMod.

On-Site Equipment Source Emissions

It is common for industrial buildings to require cargo handling equipment to move empty containers and empty chassis to and from the various pieces of cargo handling equipment that receive and distribute containers. The most common type of cargo handling equipment is the yard truck which is designed for moving cargo containers. Yard trucks are also known as yard goats, utility tractors (UTRs), hustlers, yard hostlers, and yard tractors. The cargo handling equipment is assumed to have a horsepower (hp) range of approximately 175 hp to 200 hp. For this particular Project, based on the maximum square footage of building space permitted by the Project, on-site modeled operational equipment includes a total of 15, 200 hp electric-powered yard tractors operating at 4 hours a day for 365 days of the year.

Health Risk Assessment

A health risk assessment (HRA) was prepared to evaluate Project-related impacts to the nearest sensitive receptors (residents) and workers as a result of heavy-duty diesel trucks accessing the site. The methodology used for the HRA is summarized below. However, please see Appendix C-2 for complete details.

The MDAQMD identifies that if a proposed project is expected to generate/attract heavy-duty diesel trucks, which emit DPM, preparation of a mobile source HRA is recommended. The mobile source HRA has been prepared in accordance with the relevant documentation available including *Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis* (SCAQMD 2003b) and is comprised of all relevant and appropriate procedures presented by EPA and MDAQMD.

For this Project, annual average PM_{10} emission factors were generated by running EMFAC2017 in EMFAC Mode for vehicles in the MDAQMD jurisdiction. The EMFAC Mode generates emission factors in terms of grams of pollutant emitted per vehicle activity and can calculate a matrix of emission factors at specific values of temperature, relative humidity, and vehicle speed. The model was run for speeds traveled in the vicinity of the Project. The vehicle travel speeds for each segment modeled are summarized below.

- Idling – on-site loading/unloading and truck gate
- 5 miles per hour – on-site vehicle movement including driving and maneuvering
- 25 miles per hour – off-site vehicle movement including driving and maneuvering.

As a conservative measure, an EMFAC2017 run was conducted and a static emissions factor data set was used for the entire duration of analysis (e.g., 30 years). Use of these emission factors would overstate potential impacts since this approach assumes that emission factors remain "static" and do not change over time due to fleet turnover or cleaner technology with lower emissions that would be incorporated into vehicles after.

Each roadway was modeled as a line source (made up of multiple adjacent volume sources). The DPM emission rate for each volume source was calculated by multiplying the emission factor (based on the average travel speed along the roadway) by the number of trips and the distance traveled along each roadway segment and dividing the result by the number of volume sources along that roadway. The modeling domain is limited to the Project's primary truck route and includes off-site sources in the study area for more than a 1 mile.

On-site truck idling was estimated to occur as trucks enter and travel through the Project site. Although the Project's diesel-fueled truck and equipment operators will be required by state law to comply with CARB's idling limit of 5 minutes, on-site idling emissions were calculated assuming 15 minutes of truck idling, which would take into account on-site idling which occurs while the trucks are waiting to pull up to the truck bays, idling at the bays, idling at check-in and check-out, etc.

For purposes of this analysis, the Lakes AERMOD View (Version 9.9.0) was used to calculate annual average particulate concentrations associated with site operations, which incorporates the EPA's latest AERMOD Version 19191. Receptors include both residential and non-residential (worker) land uses in the vicinity of the Project. These receptors were included in the HRA since residents and workers may be exposed at these locations over a long-term duration of 30 years of exposure. Any impacts to residents located further away from the Project site or primary truck travel route than the modeled residential receptors would have a lesser impact than what has already been disclosed in the HRA at the maximally exposed individual receptor (MEIR) because concentrations dissipate with distance.

4.2.4 Impacts Analysis

Threshold A: Would the Project conflict with or obstruct implementation of the applicable air quality plan?

Significant and Unavoidable Impact. The Federal Particulate Matter Attainment Plan and Ozone Attainment Plan for the Mojave Desert set forth a comprehensive set of programs that will lead the MDAB into compliance with federal and state air quality standards. The control measures and related emission reduction estimates within the Federal Particulate Matter Attainment Plan and Ozone Attainment Plan are based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. A project is non-conforming with an air quality plan if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all applicable MDAQMD rules and regulations, complies with all proposed control measures that are not yet adopted from the applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s) (or is directly included in the applicable plan). Zoning changes, specific plans, general plan amendments and similar land use plan changes which do not increase dwelling unit density, do not increase vehicle trips, and do not increase vehicle miles traveled are also deemed to comply with the applicable air quality plan (MDAQMD 2016).

The Project would be required to comply with all applicable MDAQMD Rules and Regulations, including, but not limited to Rules 401 (Visibile Emissions), 402 (Nuisance), and 403 (Fugitive Dust). The Project site is located within the Main Street and Freeway Corridor Specific Plan and is designated for Commercial/Industrial Business Park (CIBP) uses. The CIBP designation is intended to provide for service commercial, light industrial, light manufacturing, and industrial support uses. The Project Applicant proposes land uses that are consistent with development anticipated under the site's existing General Plan designation. The Project would therefore conform to local land use plans.

As discussed below, Project construction-source emissions would not exceed applicable MDAQMD regional thresholds after implementation of Mitigation Measure (MM) AQ-1. However, Project operational-source air pollutant emissions would result in exceedances of regional thresholds for emissions of VOC, NO_x, and PM_{10}, even after implementation of MM-AQ-2. As such, VOC, NO_x, and PM_{10} emissions are considered significant and unavoidable and the Project would have the potential to increase the frequency or severity of a violation in the federal or state ambient air quality for on-going Project operations. The health effects of criteria air pollutants are discussed further under the next impact criterion and in depth in Appendix C-3.

Based on the preceding considerations, the Project would conform to local land use plans and would comply with all applicable all MDAQMD Rules and Regulations. However, Project operational-source emissions have the potential to increase the frequency or severity of a violation in the federal or state ambient air quality standards. On this basis, the Project is considered to potentially conflict with the Federal Particulate Matter Attainment Plan and Ozone Attainment Plan for the MDAB. Therefore, impacts associated with the conflicting with the MDAQMD would be significant and unavoidable.

Threshold B: Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?

Significant and Unavoidable Impact. Construction and operation of the Project would result in emissions of criteria air pollutants from mobile, area, and/or stationary sources, which may cause exceedances of federal and state ambient air quality standards or contribute to existing nonattainment of ambient air quality standards. The following discussion identifies potential short-term construction and long-term operational impacts that would result from implementation of the Project.

Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the MDAQMD develops and implements plans for future attainment of ambient air quality standards. Although the area of the MDAB where the Project is located is currently designated a nonattainment area for federal and state O_3 standards and federal and state PM_{10} standards, the MDAB has experienced a substantial reduction in maximum 8-hour concentrations of O_3 over the past 30 years, as well as reductions in PM_{10} over time, as described in the respective MDAQMD O_3 and PM_{10} attainment plans. CEQA thresholds are established at levels that the air basin can accommodate without affecting the attainment date for the AAQS. Based on these considerations, project-level thresholds of significance for criteria pollutants are relevant in the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality.

Short-Term Construction Impacts

Construction of the Project would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment and soil disturbance) and off-site sources (i.e., on-road haul trucks, vendor trucks, and worker vehicle trips). Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated with a corresponding uncertainty in precise ambient air quality impacts.

As discussed in the Methodology – Construction subsection of Section 4.2.3, Thresholds of Significance, criteria air pollutant emissions associated with temporary construction activity were quantified using CalEEMod. CalEEMod calculates maximum daily emissions for summer and winter periods. As such, the estimated maximum daily construction emissions without mitigation for both summer and winter periods are summarized in Table 4.2-9. Detailed construction model outputs are presented in Appendix C-1.

Table 4.2-9. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions[1] - Unmitigated

Year	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Summer						
2021	144.81	126.72	144.41	0.48	41.47	14.14
Winter						
2021	144.71	126.37	133.29	0.46	41.47	14.14
Maximum Daily Emissions	**144.81**	**126.72**	**144.41**	**0.48**	**41.47**	**14.14**
MDAQMD Threshold	*137*	*137*	*548*	*137*	*82*	*65*
Threshold Exceeded?	**Yes**	**No**	**No**	**No**	**No**	**No**

Source: Appendix C-1.
Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; MDAQMD = Mojave Desert Air Quality Management District.
[1] Emissions are in pounds per day.

Under the assumed scenarios, emissions resulting from the Project construction would exceed criteria pollutant thresholds established by the MDAQMD for VOC emissions. This impact would be potentially significant without mitigation.

The estimated maximum daily construction emissions with mitigation are summarized in Table 4.2-10. Detailed construction model outputs are presented in Appendix C-1. MM-AQ-1 will be implemented to reduce the impacts, which requires that the Project shall utilize "Super-Compliant" low VOC paints which have been reformulated to

exceed the regulatory VOC limits put forth by MDAQMD's Rule 1113. Super-Compliant low VOC paints shall be no more than 10 grams per liter (g/L) of VOC. Alternatively, the Project Applicant may utilize tilt-up concrete buildings that do not require the use of architectural coatings.

Table 4.2-10. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions[1] – Mitigated

Year	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Summer						
2021	52.23	126.72	144.41	0.48	41.47	14.14
Winter						
2021	52.12	126.37	133.29	0.46	41.47	14.14
Maximum Daily Emissions	**52.23**	**126.72**	**144.41**	**0.48**	**41.47**	**14.14**
MDAQMD Threshold	*137*	*137*	*548*	*137*	*82*	*65*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Appendix C-1
Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; MDAQMD = Mojave Desert Air Quality Management District.
[1] Emissions are in pounds per day.

After implementation of MM-AQ-1, regional construction emissions would not exceed the applicable MDAQMD thresholds of significance for any criteria pollutant. Therefore, with the incorporation of mitigation, short-term impacts associated with a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment would be less than significant.

Long-Term Operational Impacts

Operation of the Project would generate VOC, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$ emissions from mobile sources, including passenger vehicle and truck trips; area sources, including the use of consumer products, architectural coatings for repainting, and landscape maintenance equipment; energy sources, including combustion of fuels used for space and water heating; and on-site equipment. CalEEMod utilizes summer and winter EMFAC2017 emission factors in order to derive vehicle emissions associated with on-road vehicle activities, which vary by season. As such, operational activities for summer and winter scenarios are presented in Table 4.2-11. Detailed operational model outputs are presented in Appendix C-1.

Table 4.2-11. Estimated Maximum Daily Operational Criteria Air Pollutant Emissions[1] - Unmitigated

Year	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Summer						
Area Source	106.61	<0.01	0.97	<0.01	<0.01	<0.01
Energy Source	1.24	11.27	9.47	0.07	0.86	0.86
Mobile Source (Passenger Cars)	29.19	19.60	263.15	0.67	69.12	18.55
Mobile Sources (Trucks)	17.48	493.85	153.68	2.25	92.81	32.13
On-Site Equipment Sources	2.05	23.19	11.61	0.05	0.78	0.72
Total Daily Summer Emissions	**156.56**	**547.92**	**438.87**	**3.03**	**163.58**	**52.26**

Table 4.2-11. Estimated Maximum Daily Operational Criteria Air Pollutant Emissions[1] - Unmitigated

Year	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Winter						
Area Source	106.61	<0.01	0.97	<0.01	<0.01	<0.01
Energy Source	1.24	11.27	9.47	0.07	0.86	0.86
Mobile Source (Passenger Cars)	25.69	20.32	213.62	0.60	69.12	18.55
Mobile Sources (Trucks)	17.21	519.49	153.30	2.25	92.82	32.13
On-Site Equipment Sources	2.05	23.19	11.61	0.05	0.78	0.72
Total Daily Winter Emissions	**152.79**	**574.28**	**388.97**	**2.96**	**163.58**	**52.26**
Maximum Daily Emissions	**156.56**	**574.28**	**438.87**	**3.03**	**163.58**	**52.26**
MDAQMD Threshold	*137*	*137*	*548*	*137*	*82*	*65*
Threshold Exceeded?	**Yes**	**Yes**	**No**	**No**	**Yes**	**No**

Source: Appendix C-1.
Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; MDAQMD = Mojave Desert Air Quality Management District.
[1] Emissions are in pounds per day.

The Project would exceed the numerical thresholds of significance established by the MDAQMD for emissions of VOC, NO_X, and PM_{10}. This impact would be potentially significant without mitigation.

Although mitigation measures have been recommended to minimize operational-related air quality impacts (MM-AQ-2), no feasible mitigation measures or project design features beyond those already identified exist that would reduce these emissions to levels that are less than significant. For VOC emissions, the majority are derived from consumer products, including cleaning supplies, aerosols, and other consumer products. As such, the Project Applicant cannot meaningfully control the use of consumer products by future building users via mitigation. Additionally, the majority of the Project's NO_X and PM_{10} emissions are derived from vehicle usage, which neither the Project Applicant nor the City can substantively or materially affect reductions in Project mobile source emissions beyond what is already required. Therefore, even with the incorporation of mitigation, long-term impacts associated with a cumulatively considerable net increase of criteria pollutants for which the Project region is non-attainment would be significant and unavoidable.

Health Effects of Criteria Air Pollutants

Construction of the Project would result in emissions that would not exceed the MDAQMD thresholds for criteria air pollutants, including VOC, after implementation of MM-AQ-1. Operation of the Project, however, would result in emissions that would exceed the MDAQMD thresholds for criteria air pollutants including VOC, NO_x, and PM_{10}, even after implementation of MM-AQ-2.

As discussed in Section 4.2.1, Existing Conditions, under the heading Pollutants and Effects, health effects associated with O_3 include respiratory symptoms, worsening of lung disease leading to premature death, and damage to lung tissue (CARB 2019b). VOCs and NO_x are precursors to O_3, for which the MDAB is designated as nonattainment with respect to the NAAQS and CAAQS. The contribution of VOCs and NO_x to regional ambient O_3 concentrations is the result of complex photochemistry. The increases in O_3 concentrations in the MDAB due to O_3 precursor emissions tend to be found downwind of the source location because of the time required for the photochemical reactions to occur. Further, the potential for exacerbating excessive O_3 concentrations would also

depend on the time of year that the VOC emissions would occur, because exceedances of the O_3 NAAQS and CAAQS tend to occur between April and October when solar radiation is highest. Due to the lack of quantitative methods to assess this complex photochemistry, the holistic effect of a single project's emissions of O_3 precursors is speculative. That being said, because the Project would exceed the MDAQMD VOC and NO_x thresholds during Project operations, the Project could contribute to health effects associated with O_3.

Health effects associated with NO_x and NO_2 include lung irritation and enhanced allergic responses (see Section 4.2.1) (CARB 2019c). Although Project-related NO_x emissions would exceed the MDAQMD construction mass daily thresholds, because the MDAB is a designated attainment area for NO_2 (and NO_2 is a constituent of NO_x) and the existing NO_2 concentrations in the area are well below the NAAQS and CAAQS standards,[5] it is not anticipated that the Project would cause an exceedance of the NAAQS and CAAQS for NO_2 or result in potential health effects associated with NO_2 and NO_x. Nonetheless, because the Project would exceed the MDAQMD NO_x threshold during Project operations, the Project could contribute to health effects associated with NO_x and NO_2.

Health effects associated with CO include chest pain in patients with heart disease, headache, light-headedness, and reduced mental alertness (see Section 4.2.1) (CARB 2019d). CO tends to be a localized impact associated with congested intersections. The potential for CO hotspots is discussed under the subsequent impact criterion below and determined to be less than significant. Thus, the Project's CO emissions would not contribute to significant health effects associated with CO.

Health effects associated with PM_{10} include premature death and hospitalization, primarily for worsening of respiratory disease (see Section 4.2.1) (CARB 2017). Operation of the Project would exceed the MDAQMD threshold for PM_{10}. As such, the Project would potentially contribute to exceedances of the NAAQS and CAAQS for particulate matter and obstruct the MDAB from coming into attainment for these pollutants. Because the Project has the potential to contribute substantial particulate matter during operation, the Project could result in associated health effects.

The California Supreme Court's *Sierra Club v. County of Fresno* (2018) 6 Cal. 5th 502 decision (referred to herein as the Friant Ranch decision) (issued on December 24, 2018), addresses the need to correlate mass emission values for criteria air pollutants to specific health consequences, and contains the following direction from the California Supreme Court: "The Environmental Impact Report (EIR) must provide an adequate analysis to inform the public how its bare numbers translate to create potential adverse impacts or it must explain what the agency *does* know and why, given existing scientific constraints, it cannot translate potential health impacts further" (Italics original). Currently, MDAQMD, CARB, and EPA have not approved a quantitative method to reliably, meaningfully, and consistently translate the mass emission estimates for the criteria air pollutants resulting from the Project to specific health effects. In addition, there are numerous scientific and technological complexities associated with correlating criteria air pollutant emissions from an individual project to specific health effects or potential additional nonattainment days.

In connection with the judicial proceedings culminating in issuance of the Friant Ranch decision, the SCAQMD and the San Joaquin Valley Air Pollution Control District (SJVAPCD) filed amicus briefs attesting to the extreme difficulty of correlating an individual project's criteria air pollutant emissions to specific health impacts. Both the SJVAPCD and the SCAQMD have among the most sophisticated air quality modeling and health impact evaluation capabilities of the air districts in the state. The key, relevant points from the SCAQMD and SJVAPCD briefs is summarized herein.

[5] See Table 4.2-2, which shows that ambient concentrations of NO_2 at the Victorville monitoring station have not exceeded the NAAQS or CAAQS between 2016 and 2018.

In requiring a health impact type of analysis for criteria air pollutants, it is important to understand how O_3 and PM is formed, dispersed and regulated. The formation of O_3 and PM in the atmosphere, as secondary pollutants,[6] involves complex chemical and physical interactions of multiple pollutants from natural and anthropogenic sources. The O_3 reaction is self-perpetuating (or catalytic) in the presence of sunlight because NO_2 is photochemically reformed from nitric oxide (NO). In this way, O_3 is controlled by both NO_x and VOC emissions (NRC 2005). The complexity of these interacting cycles of pollutants means that incremental decreases in one emission may not result in proportional decreases in O_3 (NRC 2005). Although these reactions and interactions are well understood, variability in emission source operations and meteorology creates uncertainty in the modeled O_3 concentrations to which downwind populations may be exposed (NRC 2005). Once formed, O_3 can be transported long distances by wind and due to atmospheric transport, contributions of precursors from the surrounding region can also be important (EPA 2008). Because of the complexity of O_3 formation, a specific tonnage amount of VOCs or NO_X emitted in a particular area does not equate to a particular concentration of O_3 in that area (SJVAPCD 2015). PM can be divided into two categories: directly emitted PM and secondary PM. Secondary PM, like O_3, is formed via complex chemical reactions in the atmosphere between precursor chemicals such as SO_x and NO_x (SJVAPCD 2015). Because of the complexity of secondary PM formation, including the potential to be transported long distances by wind, the tonnage of PM-forming precursor emissions in an area does not necessarily result in an equivalent concentration of secondary PM in that area (SJVAPCD 2015). This is especially true for individual projects, like the Project, where Project-generated criteria air pollutant emissions are not derived from a single "point source," but from construction equipment and mobile sources (passenger cars and trucks) driving to, from and around the Project site.

Another important technical nuance is that health effects from air pollutants are related to the concentration of the air pollutant that an individual is exposed to, not necessarily the individual mass quantity of emissions associated with an individual project. For example, health effects from O_3 are correlated with increases in the ambient level of O_3 in the air a person breathes (SCAQMD 2015). However, it takes a large amount of additional precursor emissions to cause a modeled increase in ambient O_3 levels over an entire region (SCAQMD 2015). The lack of link between the tonnage of precursor pollutants and the concentration of O_3 and $PM_{2.5}$ formed is important because it is not necessarily the tonnage of precursor pollutants that causes human health effects; rather, it is the concentration of resulting O_3 that causes these effects (SJVAPCD 2015). Indeed, the ambient air quality standards, which are statutorily required to be set by EPA at levels that are requisite to protect the public health, are established as concentrations of O_3 and $PM_{2.5}$ and not as tonnages of their precursor pollutants (EPA 2018b). Because the ambient air quality standards are focused on achieving a particular concentration region-wide, the tools and plans for attaining the ambient air quality standards are regional in nature. For CEQA analyses, project-generated emissions are typically estimated in pounds per day or tons per year and compared to mass daily or annual emission thresholds. While CEQA thresholds are established at levels that the air basin can accommodate without affecting the attainment date for the AAQS, even if a project exceeds established CEQA significance thresholds, this does not mean that one can easily determine the concentration of O_3 or PM that will be created at or near the project site on a particular day or month of the year, or what specific health impacts will occur (SJVAPCD 2015).

In regard to regional concentrations and air basin attainment, the SJVAPCD emphasized that attempting to identify a change in background pollutant concentrations that can be attributed to a single project, even one as large as the entire Friant Ranch Specific Plan, is a theoretical exercise. The SJVAPCD brief noted that it “would be extremely difficult to model the impact on NAAQS attainment that the emissions from the Friant Ranch project may have” (SJVAPCD 2015). The situation is further complicated by the fact that background concentrations of regional pollutants are not uniform either temporally or geographically throughout an air basin, but are constantly fluctuating based upon meteorology and other environmental factors. SJVAPCD noted that the currently available modeling tools are equipped to model the impact of

6 Air pollutants formed through chemical reactions in the atmosphere are referred to as secondary pollutants.

all emission sources in the San Joaquin Valley Air Basin on attainment (SJVAPCD 2015). The SJVAPCD brief then indicated that, "Running the photochemical grid model used for predicting O_3 attainment with the emissions solely from the Friant Ranch project (which equate to less than one-tenth of one percent of the total NO_x and VOC in the Valley) is not likely to yield valid information given the relative scale involved" (SJVAPCD 2015).

SCAQMD and SJVAPCD have indicated that it is not feasible to quantify project-level health impacts based on existing modeling (SCAQMD 2015; SJVAPCD 2015). Even if a metric could be calculated, it would not be reliable because the models are equipped to model the impact of all emission sources in an air basin on attainment and would likely not yield valid information or a measurable increase in O_3 concentrations sufficient to accurately quantify O_3-related health impacts for an individual project.

Nonetheless, following the Supreme Court's Friant Ranch decision, some EIRs where estimated criteria air pollutant emissions exceeded applicable air district thresholds have included a quantitative analysis of potential project-generated health effects using a combination of a regional photochemical grid model (PGM)[7] and the EPA Benefits Mapping and Analysis Program (BenMAP or BenMAP–Community Edition [CE]).[8] The publicly available health impact assessments (HIAs) typically present results in terms of an increase in health incidences and/or the increase in background health incidence for various health outcomes resulting from the project's estimated increase in concentrations of O_3 and $PM_{2.5}$.[9] To date, the five publicly available HIAs reviewed (and discussed in detail in Appendix C-3) have concluded that the evaluated project's health effects associated with the estimated project-generated increase in concentrations of O_3 and $PM_{2.5}$ represent a small increase in incidences and a very small percentage of the number of background incidences, indicating that these health impacts are negligible and potentially within the models' margin of error. It is also important to note that while the results of the five available HIAs conclude that the project emissions do not result in a substantial increase in health incidences, the estimated emissions and assumed toxicity is also conservatively inputted into the HIA and thus, overestimate health incidences, particularly for $PM_{2.5}$.

As explained in the SJVAPCD brief and noted previously, running the PGM used for predicting O_3 attainment with the emissions solely from an individual project like the Friant Ranch project or the Project is not likely to yield valid information given the relative scale involved. The five examples reviewed support the SJVAPCD's brief contention that consistent, reliable, and meaningful results may not be provided by methods applied at this time. Accordingly, additional work in the industry and more importantly, air district participation, is needed to develop a more meaningful analysis to correlate project-level mass criteria air pollutant emissions and health effects for decision makers and the public. Furthermore, at the time of writing, no HIA has concluded that health effects estimated using the PGM and BenMAP approach are substantial provided that the estimated project-generated incidences represent a very small percentage of the number of background incidences, potentially within the models' margin of error.

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7 The first step in the publicly available HIAs includes running a regional PGM, such as the Community Multiscale Air Quality (CMAQ) model or the Comprehensive Air Quality Model with extensions (CAMx) to estimate the increase in concentrations of O_3 and $PM_{2.5}$ as a result of project-generated emissions of criteria and precursor pollutants. Air districts use photochemical air quality models for regional air quality planning. These photochemical models are large-scale air quality models that simulate the changes of pollutant concentrations in the atmosphere using a set of mathematical equations characterizing the chemical and physical processes in the atmosphere (EPA 2017).

8 After estimating the increase in concentrations of O_3 and $PM_{2.5}$, the second step in the five examples includes use of BenMAP or BenMAP-CE to estimate the resulting associated health effects. BenMAP estimates the number of health incidences resulting from changes in air pollution concentrations (EPA 2018c). The health impact function in BenMAP-CE incorporates four key sources of data: (i) modeled or monitored air quality changes, (ii) population, (iii) baseline incidence rates, and (iv) an effect estimate. All of the five example HIAs focused on O_3 and $PM_{2.5}$.

9 The following CEQA documents included a quantitative HIA to address Friant Ranch: (1) California State University Dominguez Hills 2018 Campus Master Plan EIR (CSUDH 2019), (2) March Joint Powers Association K4 Warehouse and Cactus Channel Improvements EIR (March JPA 2019), (3) Mineta San Jose Airport Amendment to the Airport Master Plan EIR (City of San Jose 2019), (4) City of Inglewood Basketball and Entertainment Center Project EIR (City of Inglewood 2019), and (5) San Diego State University Mission Valley Campus Master Plan EIR (SDSU 2019).

In summary, operation of the Project could result in exceedances of the MDAQMD significance thresholds for VOC, NO_x, and PM_{10}, and the Project would potentially result in health effects associated with those pollutants. Because construction of the Project would not exceed any MDAQMD thresholds (after mitigation), and operation of the Project would not exceed the MDAQMD thresholds for CO, SO_x or $PM_{2.5}$, and because the MDAQMD thresholds are based on levels that the MDAB can accommodate without affecting the attainment date for the AAQS and the AAQS are established to protect public health and welfare, the Project is not anticipated to result in health effects associated with CO, SO_x or $PM_{2.5}$.

Notably, there are numerous scientific and technological complexities associated with correlating criteria air pollutant emissions from an individual project to specific health effects or potential additional nonattainment days, and methods available to quantitatively evaluate health effects may not be appropriate to apply to emissions associated with the Project, which cannot be estimated with a high-level of accuracy. Notwithstanding, because operation of the Project could result in exceedances of MDAQMD significance thresholds for VOC, NO_x, and PM_{10}, even after implementation of MM-AQ-2, the potential health effects associated with criteria air pollutants are conservatively considered significant and unavoidable.

Threshold C: Would the Project expose sensitive receptors to substantial pollutant concentrations?

Significant and Unavoidable Impact. The potential impact of Project-generated air pollutant emissions at sensitive receptors has been considered. Sensitive receptors can include uses such as long-term health care facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, child-care centers, and athletic facilities can also be considered as sensitive receptors. As discussed in detail below, the Project would not expose sensitive receptors to substantial pollutant concentrations.

Criteria Air Pollutant Emissions and Associated Pollutant Concentrations

As discussed above in Threshold B, because operation of the Project could result in exceedances of the MDAQMD significance thresholds for VOC, NO_x, and PM_{10}, the Project would potentially result in health effects associated with those pollutants. Because construction of the Project would not exceed any MDAQMD thresholds (after implementation of MM-AQ-2), and operation of the Project would not exceed the MDAQMD thresholds for CO, SO_x or $PM_{2.5}$, and because the MDAQMD thresholds are based on levels that the MDAB can accommodate without affecting the attainment date for the AAQS and the AAQS are established to protect public health and welfare, the Project is not anticipated to result in health effects associated with CO, SO_x or $PM_{2.5}$.

Notably, there are numerous scientific and technological complexities associated with correlating criteria air pollutant emissions from an individual project to specific health effects or potential additional nonattainment days, and methods available to quantitatively evaluate health effects may not be appropriate to apply to emissions associated with the Project, which cannot be estimated with a high-level of accuracy (see Appendix C-3). Notwithstanding, because operation of the Project could result in exceedances of MDAQMD significance thresholds for VOC, NO_x, and PM_{10}, even after implementation of MM-AQ-2, the potential health effects associated with criteria air pollutants are conservatively considered significant and unavoidable.

Local Carbon Monoxide Concentrations

Mobile source impacts occur on two scales of motion. Regionally, Project-related travel would add to regional trip generation and increase vehicle-miles traveled within the local airshed and the MDAB. Locally, Project-generated traffic would be added to the roadway system near the Project site. If such traffic occurs during periods of poor

atmospheric ventilation, is composed of a large number of vehicles "cold-started" and operating at pollution-inefficient speeds, and is operating on roadways already crowded with non-Project traffic, there is a potential for the formation of microscale CO hotspots in the area immediately around points of congested traffic. However, because of continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the MDAB is steadily decreasing.

The MDAQMD thresholds of significance for local CO emissions is the 1-hour and 8-hour CAAQS of 20 ppm and 9 ppm, respectively. By definition, these represent levels that are protective of public health. As noted previously, the MDAB is currently designated attainment for both state and national CO ambient air quality standards, and the City typically experiences low background CO concentrations.

As described in Section 4.2.3, to verify that the Project would not cause or contribute to a violation of the CO standard, a screening evaluation was conducted comparing the highest hourly traffic volumes at any studied intersection in proximity to the Project site to the 100,000 vehicles per day criterion from the SCAQMD AQMP (SCAQMD 2003a). As shown on Exhibit 7-1 of the TIA for the Project (Appendix K-1), the highest average daily trips on a segment of road would be 61,500 daily trips on Interstate 15 Northbound Ramps and Main Street, which would be substantially less than the 100,000 vehicles per day screening criterion applied. Therefore, impacts associated with CO hotspots would be less than significant.

Toxic Air Contaminant Exposure

As the Project consists of 2,361,648 square-feet of High-Cube Fulfillment Center use and 1,383,781 square-feet of General Light Industrial use, the potential impact of Project-generated air pollutant emissions at sensitive receptors has been evaluated. As described previously, a HRA has been prepared and is included in full as Appendix C-2.

Receptors in the Project study area include existing residences to the north, south, east, and west of the Project site, with the nearest residence at 11345 Phelan Road, approximately 217 feet south of the Project site. The residential land use with the greatest potential exposure to Project DPM source emissions is at the existing West Main Villas apartments as 9800 Mesa Linda Street, approximately 2,165 feet southeast of the Project site, and immediately adjacent to the north of Main Street, which is the Project's primary truck travel route. While all of the residences surrounding the Project site have been accounted for in this analysis, this analysis focuses on the residential land use with the greatest potential exposure to Project DPM source emissions, as any residences located further away from the Project site or primary truck travel route than the residence with the greatest potential for exposure would experience a lesser impact because concentrations dissipate with distance. The maximum incremental cancer risk attributable to Project DPM source emissions at the MEIR is estimated at 7.37 in one million, which is less than the MDAQMD's significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.003, which would not exceed the applicable significance threshold of 1.0. Because all other modeled residential receptors are exposed to lesser concentrations and are located at a greater distance than the MEIR, and DPM generally dissipates with distance from the source, all other receptors in the vicinity of the Project site would be exposed to less emissions and therefore less risk than the MEIR identified herein. Therefore, impacts associated with toxic air contaminants and cancer and non-cancer health risk would be less than significant.

Valley Fever

As discussed in Section 4.2.1 under the subsection Valley Fever, Valley Fever is not highly endemic to San Bernardino County; within San Bernardino County the incident rate is 1.8 cases per 100,000 people (CDPH 2017). In contrast, in 2016 the statewide annual incident rate was 13.7 per 100,000 people. The California counties

considered highly endemic for Valley Fever include Kern (251.7 per 100,000), Kings (157.3 per 100,000), San Luis Obispo (82.8 per 100,000), Fresno (60.8 per 100,000), Tulare (45.3 per 100,000), Madera (31.5 per 100,000), and San Joaquin (25.3 per 100,000) and accounted for 70% of the reported cases in 2016 (CDPH 2017).

Even if present at the site, construction activities may not result in increased incidence of Valley Fever. Propagation of Valley Fever is dependent on climatic conditions, with the potential for growth and surface exposure highest following early seasonal rains and long dry spells. Valley Fever spores can be released when filaments are disturbed by earth-moving activities, although receptors must be exposed to and inhale the spores to be at increased risk of developing Valley Fever. Moreover, exposure to Valley Fever does not guarantee that an individual will become ill—approximately 60% of people exposed to the fungal spores are asymptomatic and show no signs of an infection (USGS 2000).

In order to reduce fugitive dust from the Project and minimize adverse air quality impacts, the Project would employ dust mitigation measures in accordance with the MDAQMD Rules 401 and 403.2, which limit the amount of fugitive dust generated during construction. These requirements are consistent with CDPH recommendations for the implementation of dust control measures, including regular application of water during soil-disturbance activities, to reduce exposure to Valley Fever – the watering minimizes the potential that the fungal spores become airborne (CDPH 2013). Further, regulations designed to minimize exposure to Valley Fever hazards are included in Title 8 of the California Code of Regulations and would be complied with during the Project's construction phase (California Department of Industrial Relations 2017).

In summary, the Project would not result in a significant impact attributable to Valley Fever exposure based on its geographic location and compliance with applicable regulatory standards and dust mitigation measures, which will serve to minimize the release of and exposure to fungal spores. Therefore, impacts associated with Valley Fever exposure for sensitive receptors would be less than significant.

Threshold D: Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less-than-Significant Impact. Land uses generally associated with odor complaints generally include: agricultural uses (livestock and farming), wastewater treatment plants, food-processing plants, chemical plants, composting operations, refineries, landfills, dairies, and fiberglass molding facilities. The Project does not propose uses that would be substantive sources of objectionable odors. Potential temporary and intermittent odors may result from construction equipment exhaust, the application of asphalt, and architectural coatings. Temporary and intermittent construction-source emissions are controlled through existing requirements and industry Best Management Practices (BMPs) addressing proper storage of and application construction materials.

Over the life of the Project, odors may result from storage of municipal solid waste pending its transport to area landfills. Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City of Hesperia's solid waste regulations.

The Project would also be required to comply with MDAQMD Rule 402 (Nuisance). Rule 402 provides that "[a] person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property" (MDAQMD 1976). Based on the preceding, the potential for the Project to create objectionable odors affecting a substantial number of people would be less than significant.

Threshold E: Would the Project result in cumulatively considerable air quality impacts?

Significant and Unavoidable Impact. Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the MDAQMD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are relevant in the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality. Individual projects that do not generate operational or construction emissions that exceed the MDAQMD's recommended daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which the MDAB is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact.

The area of the MDAB in which the Project is located is a nonattainment area for O_3 and PM_{10} under the NAAQS and/or CAAQS. The poor air quality in the MDAB is the result of cumulative emissions from motor vehicles, off-road equipment, commercial and industrial facilities, and other emission sources. Projects that emit these pollutants or their precursors (i.e., VOC and NO_x for O_3) potentially contribute to poor air quality. As indicated in Table 4.2-10, daily construction emissions associated with the Project would not exceed the MDAQMD significance thresholds after implementation of mitigation of MM-AQ-1. However, as presented in the preceding analysis, Project operational-source air pollutant emissions would result in exceedances of regional thresholds for emissions of VOC, NO_X, and PM_{10}. As previously stated, the majority of VOC emissions are derived from consumer products, the use of which the Project Applicant cannot meaningfully control for future building users via mitigation. On this basis, it is concluded that Project operational-source VOC emissions cannot be definitively reduced below applicable MDAQMD thresholds.

Additionally, it should be noted that the majority of the Project's NO_X and PM_{10} emissions are derived from vehicle usage. Although MM-AQ-2 would reduce operational emissions from on-road vehicles to the extent feasible, since neither the Project Applicant nor the City of Hesperia have regulatory authority to control tailpipe emissions, no feasible MMs exist that would reduce these emissions to levels that are less-than-significant. As such, Project operational-source VOC, NO_X, and PM_{10} emissions exceedances of applicable MDAQMD regional thresholds would be significant and unavoidable, and thus, cumulatively considerable.

4.2.5 Mitigation Measures and Level of Significance After Mitigation

Threshold A: Would the Project conflict with or obstruct implementation of the applicable air quality plan?

The Project would result in potentially significant impacts with regard to conflicting with or obstructing implementation of an applicable air quality plan. Implementation of MM-AQ-1 and MM-AQ-2 would reduce the Project's impacts; however, impacts would remain **significant and unavoidable**.

Short-Term Construction Impacts

MM-AQ-1 The Project shall utilize "Super-Compliant" low VOC paints which have been reformulated to exceed the regulatory VOC limits put forth by MDAQMD's Rule 1113. Super-Compliant low VOC paints shall be no more than 10 grams per liter (g/L) of VOC. Alternatively, the Project Applicant may utilize tilt-up concrete buildings that do not require the use of architectural coatings.

Long-Term Operational Impacts

MM-AQ-2 The Project shall implement the following measures in order to reduce operational air pollutant emissions to the extent feasible:

- Only haul trucks meeting model year 2010 engine emission standards shall be used for the on-road transport of materials to and from the Project site.
- Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum, each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than 5 minutes once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged; and 3) telephone numbers of the building facilities manager and the CARB to report violations. Prior to the issuance of an occupancy permit, the City of Hesperia shall conduct a site inspection to ensure that the signs are in place.
- Prior to tenant occupancy, the Project Applicant or successor in interest shall provide documentation to the City of Hesperia demonstrating that occupants/tenants of the Project site have been provided documentation on funding opportunities, such as the Carl Moyer Program, that provide incentives for using cleaner-than-required engines and equipment.
- The minimum number of automobile electric vehicle (EV) charging stations required by the California Code of Regulations Title 24 shall be provided. In addition, the buildings shall include electrical infrastructure sufficiently sized to accommodate the potential installation of additional auto and truck EV charging stations in the future.
- Conduit shall be installed to tractor trailer parking areas in logical locations determined by the Project Applicant during construction document plan check, for the purpose of accommodating the future installation of EV truck charging stations at such time this technology becomes commercially available.

Threshold B: Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?

Short-Term Construction Impacts

Construction of the Project would result in a potentially significant cumulatively considerable net increase of criteria pollutants for which the Project region is non-attainment (VOCs). MM-AQ-1 would be implemented, and Project impacts would be **less than significant with mitigation incorporated**.

Long-Term Operational Impacts

Operation of the Project would result in a potentially significant cumulatively considerable net increase of criteria pollutants for which the Project region is non-attainment (i.e., VOCs, NO_X, and PM_{10}). Implementation of MM-AQ-2 would reduce the Project's impacts; however impacts would remain **significant and unavoidable**.

Threshold C: Would the Project expose sensitive receptors to substantial pollutant concentrations?

Construction and operation of the Project would not expose sensitive receptors to substantial pollutant concentrations, including concentrations of CO emissions, toxic air contaminants, and spores of the *Coccidioides*

immitis fungus (which can result in Valley Fever). However, because operation of the Project could result in exceedances of MDAQMD significance thresholds for VOC, NO_x, and PM_{10}, even after implementation of MM-AQ-1 and MM-AQ-2, the potential health effects associated with criteria air pollutants are conservatively considered **significant and unavoidable**.

Threshold D: Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The Project would result in **less-than-significant impacts** associated other emissions (such as those leading to odors) which could adversely affect a substantial number of people. No mitigation is required.

Threshold E: Would the Project result in cumulatively considerable air quality impacts?

As discussed in Threshold B, construction of the Project would result in a less-than significant cumulative air quality impact with implementation of MM-AQ-1; however, despite implementation of MM-AQ-2, operational-source VOC, NO_x, and PM_{10} emissions exceedances of applicable MDAQMD regional thresholds would be **significant and unavoidable**, and thus, cumulatively considerable overall.

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4.3 Biological Resources

This section describes the existing biological resources conditions of the Hesperia Commerce Center II Project (Project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the Project.

In addition to the documents incorporated by reference (see Section 2.7 of Chapter 2 of this Environmental Impact Report [EIR]), the following analysis is based, in part, on the following sources:

- *Biological Resources Letter Report* prepared by LSA in June 2019 (Appendix D-1)
- *Desert Native Plant Survey Results* prepared by Dudek in December 2019 (Appendix D-2)
- *Joshua Tree Relocation Plan* prepared by Dudek in December 2019 (Appendix D-3)
- *Desert Tortoise Protocol Survey Results* prepared by Dudek in August 2020 (Appendix D-4)
- *Mojave Ground Squirrel Protocol Survey Results* prepared by ESA in July 2020 (Appendix D-5)
- *Biological Resources Technical Report for the Hesperia Commerce Center II Off-Site Utilities Alignments* prepared by Dudek in September 2020 (Appendix D-6)

4.3.1 Existing Conditions

The Project site consists of vacant land generally located on the northwestern corner of Phelan Road and U.S. Highway 395. Current land uses around the Project site includes rural residential and vacant land. The Project site is bordered by Los Angeles Bureau of Power and Lights Road to the west and Yucca Terrace Road to the north. The Project site has been subject to previous disturbances from off-highway vehicle use, unlawful dumping, and abandoned encampments. The proposed Off-Site Utilities Alignments[1] show evidence of previous minor disturbances, which are mainly attributed to the construction of Yucca Terrace Drive, a dirt road. Five Rivers Fleet Services, a truck depot, occurs adjacent to the northern edge of the study area, on the west side of U.S. Highway 395. The southeast edge of the proposed Off-Site Storm Drain Alignment and Off-Site Sewer Alignment includes a small portion of the Desert Willow RV Resort. The proposed Off-Site Water Alignment also shows evidence of previous disturbance, mainly the construction of Los Banos Avenue, a dirt road. A group of residential buildings are adjacent to the east side of Los Banos Avenue. The area to the south of the proposed Off-Site Water Alignment shows evidence of previous ground-disturbing activities.

Topography and Soils

Project Site

Topography within the Project site is generally flat and ranges in elevation from approximately 3,565 to 3,610 feet above mean sea level (AMSL). The lowest and highest elevations both occur in the southwestern portion of the Project site. Soils on the Project site are mapped by the Natural Resource Conservation Service (NRCS) as Cajon Sand, 0% to 2% slopes and Cajon Sand, 9% to 15% slopes. Sandy soils were observed throughout the Project site and appear to be consistent with the soil mapping designation (Figure 4.3-1, Soils). Many areas of the Project site are moderately–to-highly disturbed due to off-highway vehicle activity and illegal debris dumping.

[1] As described in detail in Chapter 3, Project Description, the Project would involve the construction of an Off-Site Storm Drain Alignment, the Off-Site Sewer Alignment, and the Off-Site Water Alignment, which are collectively referred to as the Off-Site Utilities Alignments.

Off-Site Utilities Alignments

The proposed Off-Site Utilities Alignments are relatively flat with no significant topographic features, and occurs at an elevation of approximately 3,500 feet AMSL. The soils within the Off-Site Utilities Alignments comprise four types of soil: Cajon sand (0% to 2% slopes), Cajon sand (2% to 9% slopes), Cajon sand (9% to 15% slopes), and Hesperia loamy fine sand (2% to 5% slopes) (Figure 4.3-1, Soils). The soil series are described in more detail below. Portions of the surface soils observed in the study area have been significantly compacted due to the construction of dirt roads within the study area.

Vegetation

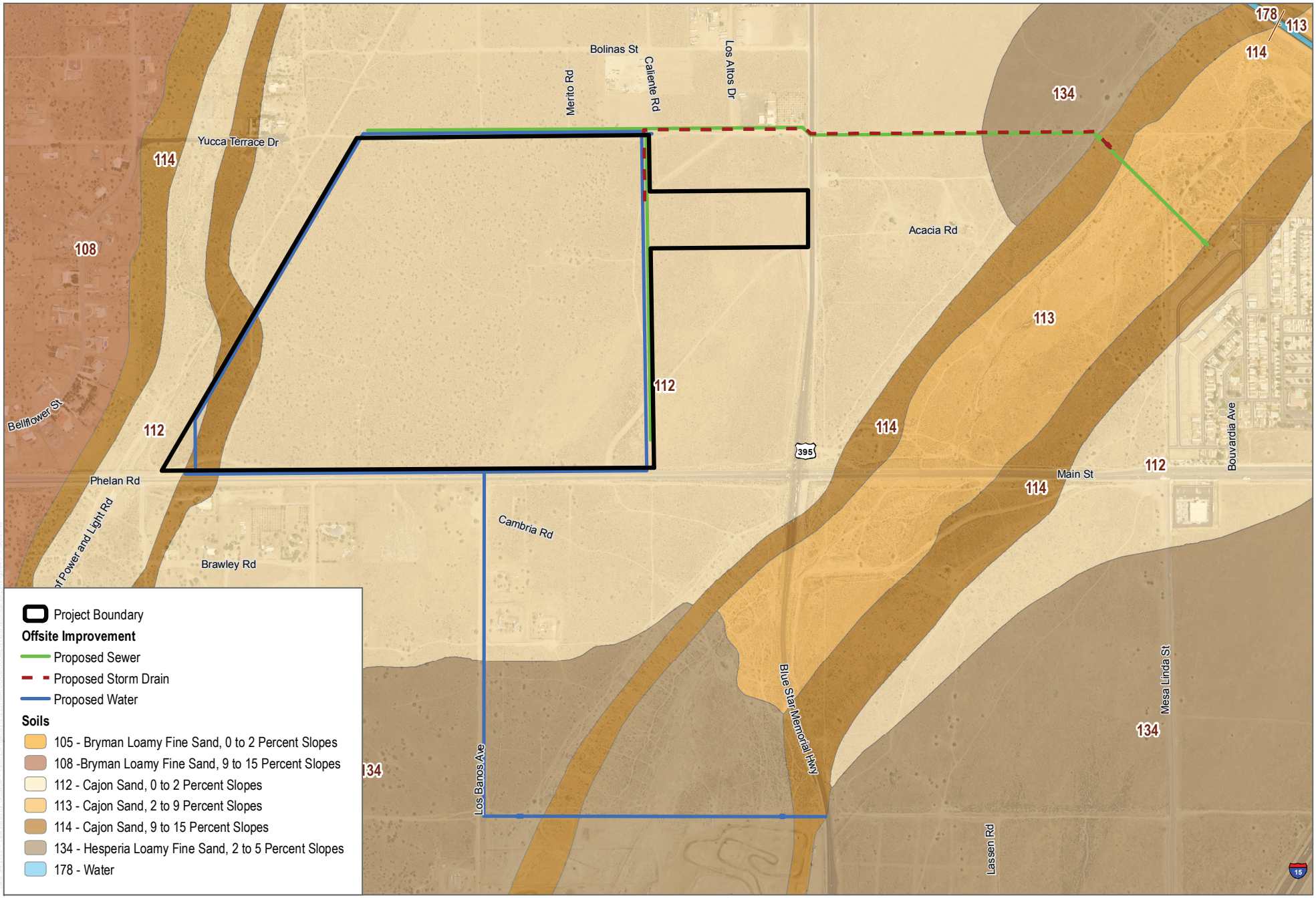
Project Site

The Project site is primarily comprised of Joshua tree woodland (Figure 4.3-2, Vegetation). Dominant plants include Joshua tree *(Yucca brevifolia)* and California juniper *(Juniperus californica)*, followed by Cooper's goldenbush *(Ericameria cooperi)*, Cooper's boxthorn *(Lycium cooperi)*, Anderson's thornbush *(Lycium andersonii)*, bladder sage *(Salazaria mexicana)*, cheesebush *(Ambrosia salsola)*, green ephedra *(Ephedra viridis)*, cotton-thorn *(Tetradymia axillaris)*, spiny hopsage *(Grayia spinosa)*, and winterfat *(Krascheninnikovia lanata)*. The herbaceous layer is primary dominated by fiddleneck *(Amsinckia tessellata)* and non-native annuals and grasses such as red-stemmed filaree *(Erodium cicutarium)* red-brome *(Bromus madritensis)* and cheat grass *(Bromus tectorum)*.

Vegetation within the southeastern portion of the Project site is more sparse and disturbed due to human activity. All plant species observed or otherwise detected during the initial field survey were noted and are listed in Appendix D-1. In addition, one desert native plant species was recorded on the Project site—Wiggins' cholla (*Cylindropuntia echinocarpa*)—of which 66 living individuals and 6 dead plants were documented on the Project site (Appendix D-2).

Off-Site Utilities Alignments

The Off-Site Utilities Alignments consist of predominantly Joshua tree woodland vegetation, with scattered native shrubs and forbs (Figure 4.3-2, Vegetation). While native shrubs dominate the vegetation cover, non-native grasses and forbs are present within the study area. The proposed Off-Site Storm Drain Alignment and the Off-Site Sewer Alignment also contain a small section of developed land. Dominant species observed are the same as what was observed on the Project site.



SOURCE: USDA 2016, 2020

DUDEK

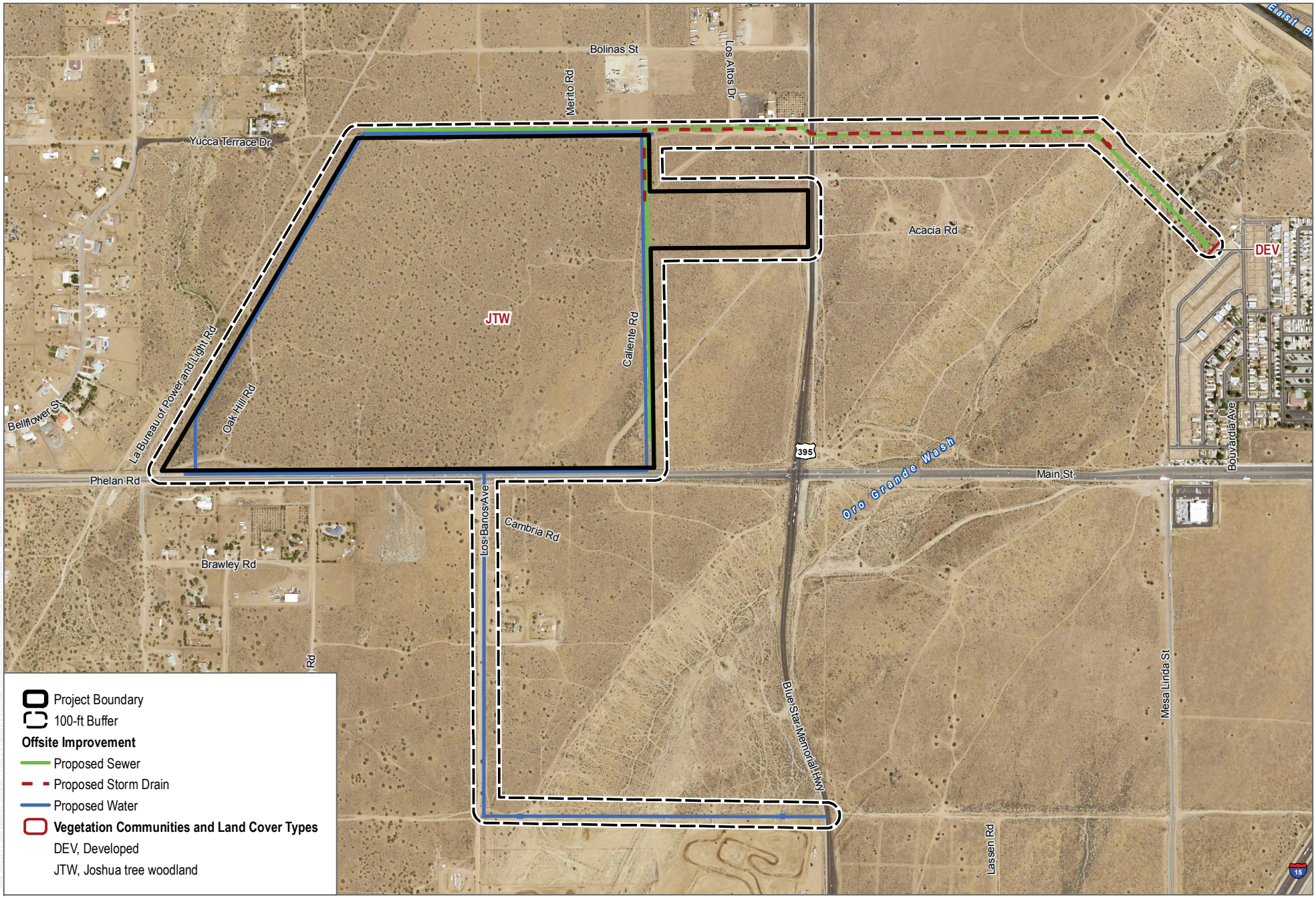
0 500 1,000 Feet

FIGURE 4.3-1

Soils

Hesperia Commerce Center II

INTENTIONALLY LEFT BLANK



SOURCE: USDA 2016

DUDEK

0 500 1,000 Feet

FIGURE 4.3-2

Vegetation

Hesperia Commerce Center II

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Wildlife

Project Site and Off-Site Utilities Alignments

Wildlife observed on site included house finch (*Haemorhous mexicanus*), ferruginous hawk (*Buteo regalis*), American crow (*Corvus brachyrhynchos*), northern mockingbird (*Mimus polyglottos*), common raven (*Corvus corax*), northern mockingbird (*Mimus polyglottos*), California quail (*Callipepla californica*), turkey vulture (*Cathartes aura*), greater roadrunner (*Geococcyx californianus*), cactus wren (*Campylorhynchus brunneicapillus*), black-tailed jackrabbit (*Lepus californicus*), and white-tailed antelope squirrel (*Ammospermophilus leucurus*). Dog (*Canis familiaris*) scat and small mammal burrows were also observed throughout the study area. All wildlife species observed or otherwise detected during the initial field survey were noted and are listed in Appendix D-1 and Appendix D-6.

Special-Status Species

This section discusses special-status species observed or potentially occurring within the limits of the Project site and the Off-Site Utilities Alignments. Species that are candidates for state and/or federal listing and species on watch lists are included in the special-status species list. Inclusion of species described herein is based on the following criteria:

- Direct observation of the species or its sign in the survey area or immediate vicinity during previous biological studies;
- Sighting by other qualified observers;
- Record reported by the CNDDB, published by the CDFW;
- Presence or location information for specific species provided by private groups (e.g., CNPS); and/or
- Survey area lies within known distribution of a given species and contains appropriate habitat.

Threatened and Endangered Species

The USFWS designates as threatened or endangered, species that are at risk of extinction and may also adopt recovery plans that identify specific areas that are essential to the conservation of a listed species. Critical habitat areas that may require special management considerations or protections can also be designated. The California Endangered Species Act (CESA) is administered by the CDFW and prohibits the "take" of plant and animal species identified as either threatened or endangered in the State of California by the California Fish and Game Commission (California Fish and Game Code Section 2050 to 2097). Listed below are the federal and/or state listed species and critical habitats reported to been found within a 2-mile radius of the Project site:

- Mohave ground squirrel (*Xerospermophilus mohavensis*; state listed as threatened); and
- Desert tortoise (*Gopherus agassizii*; federally and state listed as threatened).

The desert tortoise and Mohave ground squirrel (MGS) are discussed in further detail below.

Desert Tortoise. The Mojave population of the desert tortoise was listed as a federally endangered species by emergency rule on August 4, 1989, and as a threatened species by final rule on April 2, 1990. Federally designated critical habitat for the Mojave Desert population was finalized in February 1994. Mojave desert tortoises primarily inhabit creosote bush scrub, saltbush scrub, and Joshua tree woodland, generally below approximately 5,000 feet in elevation. The Project site is not within designated critical habitat for this species or within any Desert Wildlife

Management Areas proposed for the desert tortoise identified in the draft West Mojave Plan (BLM 2005). The on-site vegetation has been determined to provide low-quality habitat for the desert tortoise (Appendix D-1 and D-4).

Mohave Ground Squirrel. MGS was listed as threatened in 1984 under CESA. The MGS inhabits desert areas with deep sandy or gravelly friable soils and an abundance of annual herbaceous vegetation. This species prefers arid flat terrains with desert shrubs. Habitat for the MGS occurs in alluvial fans where desert pavement is absent including creosote bush scrub, shadscale scrub, alkali sink, and Joshua tree woodland. Nests are in underground burrows. Individuals may use several different burrows.

The Project site is located in an area that is cut off from known MGS populations by Interstate (I) 15 and U.S. Highway 395 to the east and by the California Aqueduct to the north. The nearest known MGS population is a remnant population in Adelanto, which is more than 10 miles to the north. The nearest CNDDB records to the study area are north of the California Aqueduct. The on-site vegetation has been determined to provide low-/marginal quality habitat for MGS (Appendix D-5).

Non-Listed Special-Status Species

The CDFW, USFWS, local agencies, and special-status groups, such as the CNPS, maintain lists of species that they consider to be in need of monitoring. Legal protection for these special-status species varies widely. Table 4.3-1 summarizes special-status species known to occur in the region, along with their status, habitat and distribution, activity/bloom period, and probability of occurrence.

Table 4.3-1. Special-Status Species Occurrence Probability

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Plants				
Castilleja plagiotoma **Mojave paintbrush**	US: – CA: 4	Historical distribution from the northern base of the San Bernardino and San Gabriel Mountains to the Piute Mountains and San Luis Obispo County. Occurs on dry flats and ridges in dry sagebrush scrub and pinyon woodland. Occurs in Joshua tree woodland. Elevations 275 to 2,500 meters (900 to 8,200 feet).	Year-round	**Moderate.** Moderately suitable habitat (Joshua tree woodland) is present within the Project area.
Chorizanthe xanti var. *leucotheca* **White-bracted spineflower**	US: – CA: 1B	Sandy to gravelly places in Mojave desert scrub, pinyon and juniper woodland, or coastal scrub in the Transverse and Peninsular Ranges and desert edge foothills at 300 to 1,200 meters (980 to 3,900 feet) elevation in coastal Southern California and adjacent desert areas. Known only from Los Angeles, Riverside, San Bernardino, and San Diego Counties, California.	Blooms April through June (annual herb)	**Moderate.** Moderately suitable habitat (juniper woodland) is present within the Project area.

Table 4.3-1. Special-Status Species Occurrence Probability

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Eremothera boothii ssp. *boothii* **Booth's evening primrose**	US: – CA: 2B	Joshua tree woodland and pinyon-juniper woodland at 880 to 2,400 meters (2,900 to 7,900 feet) elevation. In California, known from Inyo, Mono, and San Bernardino Counties.	Blooms April through May (annual herb)	**Moderate**. Moderately suitable habitat (Joshua tree woodland) is present within the Project area.
Muilla coronata **Crowned muilla**	US: – CA: 4	Historically distributed from the eastern side of the High Sierra south to the western Mojave desert. Occurs in heavy soils in open desert scrub and Joshua tree woodland; 975 to 1,600 meters (3,200 to 5,200 feet) elevation.	Blooms March through April	**Moderate**. Moderately suitable habitat (Joshua tree woodland) is present within the Project area.
Opuntia basilaris var. *brachyclada* **Short-joint beavertail**	US: – CA: 1B	Sandy soil or coarse, granitic loam in chaparral, Joshua tree woodland, Mojavean desert scrub, and pinyon-juniper woodland at 425 to 1,800 meters (1,400 to 5,900 feet) elevation in the Providence Mountains and desert slopes of the San Gabriel and San Bernardino Mountains. Known only from Los Angeles and San Bernardino Counties, California.	Blooms April through June; identifiable year-round (perennial stem succulent)	**Moderate**. Moderately suitable habitat (sandy soil and Joshua tree woodland) is present within the Project area.
Pediomelum castoreum **Beaver dam breadroot**	US: – CA: 1B	Sandy soils, washes, and roadcuts in Joshua tree woodland and Mojave Desert scrub at 610 to 1,525 meters (2,000 to 5,000 feet) elevation. In California, known only from San Bernardino County. Also occurs in Arizona and Nevada.	Blooms April through May (perennial herb)	**Moderate**. Moderately suitable habitat (sandy soil and Joshua tree woodland) is present within the Project area.
Reptiles				
Phrynosoma blainvillii (coronatum) **Coast horned lizard**	US: – CA: SSC	Primarily in sandy soil in open areas, especially washes and floodplains, in many plant communities. Requires open areas for sunning, bushes for cover, patches of loose soil for burial, and an abundant supply of ants or other insects. Occurs west of the deserts from northern Baja California north to Shasta County below 2,400 meters (8,000 feet) elevation.	April through July with reduced activity August through October	**Low.** Marginally suitable habitat (sandy soil in open areas) is present within the Project area.

Table 4.3-1. Special-Status Species Occurrence Probability

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Birds				
Athene cunicularia (burrow sites) **Burrowing owl**	US: – CA: SSC (breeding)	Open country in much of North and South America. Usually occupies ground squirrel burrows in open, dry grasslands, agricultural and range lands, railroad rights-of-way, and margins of highways, golf courses, and airports. Often utilizes man-made structures, such as earthen berms, cement culverts, cement, asphalt, rock, or wood debris piles. They avoid thick, tall vegetation, brush, and trees, but may occur in areas where brush or tree cover is less than 30%.	Year-round	**High.** Suitable habitat (open, dry grassland, manmade structures, low vegetation cover) is present within the Project area.
Lanius ludovicianus (nesting) **Loggerhead shrike**	US: – CA: SSC (breeding)	Prefers open habitats with scattered small trees and with fences, utility lines, or other perches. Inhabits open country with short vegetation, pastures, old orchards, cemeteries, golf courses, riparian areas, and open woodlands. Highest density occurs in open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and Joshua tree habitats. Occurs only rarely in heavily urbanized areas, but often found in open cropland. Found in open country in much of North America.	Year-round	**Moderate.** Moderately suitable habitat (open Joshua tree area) is present within the Project area.

Source: Appendix D-1.
Notes: CA: State Classifications: SSC Species of Special Concern. Refers to animals with vulnerable or seriously declining populations.
1B California Rare Plant Rank 1B – rare, threatened or endangered in California and elsewhere.
2B California Rare Plant Rank 2B – rare, threatened or endangered in California, but more common elsewhere
4 California Rare Plant Rank 4: A watch list of plants of limited distribution.

4.3.2 Relevant Plans, Policies, and Ordinances

Federal

Federal Endangered Species Act

The federal Endangered Species Act (FESA) of 1973 (16 USC 1531 et seq.), as amended, is administered by the USFWS for most plant and animal species and by the National Oceanic and Atmospheric Administration National Marine

Fisheries Service for certain marine species. This legislation is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend and provide programs for the conservation of those species, thus preventing the extinction of plants and wildlife. The FESA defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under FESA, it is unlawful to "take" any listed species, and "take" is defined as, "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

FESA allows for the issuance of incidental take permits for listed species under Section 7, which is generally available for projects that also require other federal agency permits or other approvals, and under Section 10, which provides for the approval of Habitat Conservation Plans (HCPs) on private property without any other federal agency involvement.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) was originally passed in 1918 as four bilateral treaties, or conventions, for the protection of a shared migratory bird resource. The primary motivation for the international negotiations was to stop the "indiscriminate slaughter" of migratory birds by market hunters and others. The MBTA protects over 800 species of birds (including their parts, eggs, and nests) from killing, hunting, pursuing, capturing, selling, and shipping unless expressly authorized or permitted.

Clean Water Act

The Clean Water Act (CWA) provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 401 requires a project proponent for a federal license or permit that allows activities resulting in a discharge to waters of the United States to obtain state certification, thereby ensuring that the discharge will comply with provisions of the CWA. The RWQCB administers the certification program in California. Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the United States. Section 404 establishes a permit program administered by the U.S. Army Corps of Engineers (ACOE) that regulates the discharge of dredged or fill material into waters of the United States, including wetlands. ACOE implementing regulations are found at 33 CFR 320 and 330. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines, which were developed by the United States Environmental Protection Agency in conjunction with ACOE (40 CFR 230). The guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

Wetlands and Other Waters of the United States

Aquatic resources, including riparian areas, wetlands, and certain aquatic vegetation communities, are considered sensitive biological resources and can fall under the jurisdiction of several regulatory agencies. ACOE exerts jurisdiction over waters of the United States, including all waters that are subject to the ebb and flow of the tide; wetlands and other waters such as lakes, rivers, streams (including intermittent or ephemeral streams), mudflats, sandflats, sloughs, prairie potholes, vernal pools, wet meadows, playa lakes, or natural ponds; and tributaries of the above features. The extent of waters of the United States is generally defined as that portion that falls within the limits of the OHWM. Typically, the OHWM corresponds to the two-year flood event.

Wetlands, including swamps, bogs, seasonal wetlands, seeps, marshes, and similar areas, are defined by ACOE as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to

support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3[b]; 40 CFR 230.3[t]). Indicators of three wetland parameters (i.e., hydric soils, hydrophytic vegetation, and wetlands hydrology), as determined by field investigation, must be present for a site to be classified as a wetland by ACOE (ACOE 1987; ACOE 2008).

State

California Endangered Species Act

The California Endangered Species Act (CESA) (California Fish and Game Code Section 2050 et seq.) provides protection and prohibits the take of plant, fish, and wildlife species listed by the State of California. Unlike FESA, state-listed plants have the same degree of protection as wildlife, but insects and other invertebrates may not be listed. Take is defined similarly to FESA and is prohibited for both listed and candidate species. Take authorization may be obtained by the project proponent from the CDFW under the CESA Section 2081, which allows take of a listed species for educational, scientific, or management purposes. In this case, private developers consult with CDFW to develop a set of measures and standards for managing the listed species, including full mitigation for impacts, funding of implementation, and monitoring of mitigation measures.

California Fully Protected Species

Sections 3511, 4700, 5050, and 5515 of the Fish and Game Code outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. CDFW cannot issue permits or licenses that authorize the "take" of any fully protected species, except under certain circumstances, such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock. Furthermore, it is the responsibility of the CDFW to maintain viable populations of all native species. Toward that end, the CDFW has designated certain vertebrate species as Species of Special Concern, because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.

California Native Plant Protection Act

The Native Plant Protection Act of 1977 directed the CDFW to carry out the Legislature's intent to "preserve, protect and enhance rare and endangered plants in this State." The Native Plant Protection Act gave the California Fish and Game Commission the power to designate native plants as "endangered" or "rare" and protect endangered and rare plants from take. The CESA expanded on the original Native Plant Protection Act and enhanced legal protection for plants, but the Native Plant Protection Act remains part of the Fish and Game Code. To align with federal regulations, the CESA created the categories of "threatened" and "endangered" species. It converted all "rare" animals into the act as threatened species, but did not do so for rare plants. Thus, there are three listing categories for plants in California: rare, threatened, and endangered. Because rare plants are not included in the CESA, mitigation measures for impacts to rare plants are specified in a formal agreement between CDFW and the project proponent.

California Environmental Quality Act

California Environmental Quality Act (CEQA) requires identification of a project's potentially significant impacts on biological resources and ways that such impacts can be avoided, minimized, or mitigated. The act also provides guidelines and thresholds for use by lead agencies for evaluating the significance of proposed impacts.

CEQA Guidelines Section 15380(b)(1) defines endangered animals or plants as species or subspecies whose "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors." A rare animal or plant is defined in Section 15380(b)(2) as a species that, although not presently threatened with extinction, exists "in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or … [t]he species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as that term is used in the federal Endangered Species Act." Additionally, an animal or plant may be presumed to be endangered, rare, or threatened if it meets the criteria for listing, as defined further in CEQA Guidelines Section 15380(c).

CDFW has developed a list of "Special Species" as "a general term that refers to all of the taxa the California Natural Diversity Database (CNDDB) is interested in tracking, regardless of their legal or protection status." This is a broader list than those species that are protected under the FESA, CESA, and other Fish and Game Code provisions, and includes lists developed by other organizations, including for example the Audubon Watch List Species. Guidance documents prepared by other agencies, including the BLM Sensitive Species and USFWS Birds of Special Concern, are also included on this CDFW Special Species list. Additionally, CDFW has concluded that plant species included on the California Native Plant Society's (CNPS's) California Rare Plant Rank (CRPR) List 1 and 2, and potentially some List 3 plants, are covered by CEQA Guidelines Section 15380.

Section IV of Appendix G (Environmental Checklist Form) of the CEQA Guidelines requires an evaluation of impacts to "any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service."

California Fish and Game Code Section 1602

Under these sections of the California Fish and Game Code, a project proponent is required to notify CDFW prior to any project that would divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake. Pursuant to the code, a "stream" is defined as a body of water that flows at least periodically, or intermittently, through a bed or channel having banks and supporting fish or other aquatic life. Based on this definition, a watercourse with surface or subsurface flows that supports or has supported riparian vegetation is a stream and is subject to CDFW jurisdiction. Altered or artificial watercourses valuable to fish and wildlife are subject to CDFW jurisdiction. CDFW also has jurisdiction over dry washes that carry water during storm events.

Preliminary notification and project review generally occur during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFW is required to propose reasonable project changes to protect the resource. These modifications are formalized in a Streambed Alteration Agreement, which becomes part of the plans, specifications, and bid documents for the project.

California Wetland Definition

Unlike the federal government, California has adopted the Cowardin et al. (1979) definition of wetlands. For purposes of this classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes (at least 50% of the aerial vegetative cover); (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and saturated with water or covered by shallow water at some time during the growing season of each year.

Under normal circumstances, the federal definition of wetlands requires all three wetland identification parameters to be met, whereas the Cowardin definition requires the presence of at least one of these parameters. For this reason, identification of wetlands by state agencies consists of the union of all areas that are periodically inundated or saturated or in which at least seasonal dominance by hydrophytes may be documented or in which hydric soils are present.

Section 401 Clean Water Act

Under Section 401 of the CWA, the local RWQCB, Santa Ana RWQCB, must certify that actions receiving authorization under Section 404 of the CWA also meet state water quality standards. The RWQCB requires projects to avoid impacts to wetlands if feasible and requires that projects do not result in a net loss of wetland acreage or a net loss of wetland function and values. Compensatory mitigation for impacts to wetlands and/or waters of the state is required.

Porter-Cologne Water Quality Control Act

The RWQCB also has jurisdiction over waters deemed "isolated" or not subject to Section 404 jurisdiction under the SWANCC decision. Dredging, filling, or excavation of isolated waters constitutes a discharge of waste to waters of the state and prospective dischargers are required obtain authorization through an Order of Waste Discharge or waiver thereof from the RWQCB and comply with other requirements of Porter-Cologne Act.

California Desert Native Plants Act

The purpose of the California Desert Native Plants Act (CDNPA) is to protect certain species of California desert native plants from unlawful harvesting on both public and privately owned lands. The CDNPA only applies within the boundaries of Imperial, Inyo, Kern, Los Angeles, Mono, Riverside, San Bernardino, and San Diego Counties. Within these counties, the CDNPA prohibits the harvest, transport, sale, or possession of specific native desert plants unless a person has a valid permit or wood receipt, and the required tags and seals. The appropriate permits, tags and seals must be obtained from the sheriff or commissioner of the county where collecting will occur, and the county will charge a fee. More information on the CDNPA, including the species protected under the law, is available by reading the provisions of the law.

California Fish and Game Code Section 2073.3

Pursuant to the provisions of Section 2073.3 of the California Fish and Game Code, the California Fish and Game Commission (Commission), received a petition from the Center for Biological Diversity on October 21, 2019 to list western Joshua tree (*Yucca brevifolia*) as a threatened species under the California Endangered Species Act. Pursuant to Section 2073 of the California Fish and Game Code, on November 1, 2019, Commission staff transmitted the petition to the CDFW for review pursuant to Section 2073.5 of said code. After reviewing the Petition and other relevant information, CDFW determined that the Petition provides sufficient information to indicate that the petitioned action may be warranted for western Joshua tree and CDFW recommended that the Commission accept the Petition for further consideration under CESA.

The Commission has the authority to list certain "species" or "subspecies" as threatened or endangered under CESA (California Fish and Game Code Sections 2062, 2067, and 2070). The listing process is the same for species and subspecies (California Fish and Game Code Sections 2070–2079.1). CESA sets forth a two-step process for listing a species as threatened or endangered. First, the Commission determines whether to designate a species

as a candidate for listing by evaluating whether the petition provides "sufficient information to indicate that the petitioned action may be warranted" (California Fish and Game Code Section 2074.2[e][2]). If the petition is accepted for consideration, the second step requires the Department to produce, within 12 months of the Commission's acceptance of the petition, a peer reviewed report based upon the best scientific information available that indicates whether the petitioned action is warranted (California Fish and Game Code Section 2074.6). Finally, the Commission, based on that report and other information in the administrative record, determines whether the petitioned action to list the species as threatened or endangered is warranted (California Fish and Game Code Section 2075.5). A petition to list a species under CESA must include "information regarding the population trend, range, distribution, abundance, and life history of a species, the factors affecting the ability of the population to survive and reproduce, the degree and immediacy of the threat, the impact of existing management efforts, suggestions for future management, and the availability and sources of information. The petition shall also include information regarding the kind of habitat necessary for species survival, a detailed distribution map, and any other factors that the petitioner deems relevant" (California Fish and Game Code Section 2072.3; see also 14 CCR 670.1[d][1]). The range of a species for the Department's petition evaluation and recommendation is the species' California range (*California Forestry Association v. California Fish and Game Commission* [2007] 156 Cal.App.4th 1535, 1551).

CDFW must evaluate the petition on its face and in relation to other relevant information and submit to the Commission a written evaluation report with one of the following recommendations:

- Based upon the information contained in the petition, there is not sufficient information to indicate that the petitioned action may be warranted, and the petition should be rejected; or
- Based upon the information contained in the petition, there is sufficient information to indicate that the petitioned action may be warranted, and the petition should be accepted and considered.

The Department's candidacy recommendation to the Commission is based on an evaluation of whether the petition provides sufficient scientific information relevant to the petition components set forth in California Fish and Game Code Section 2072.3 and the California Code of Regulations, Title 14, Section 670.1(d)(1).

At its June 2020 meeting, after conversations with the petitioner and other stakeholders, the Commission continued to its August 2020 meeting the consideration and potential action on the petition to determine whether listing western Joshua tree under the CESA may be warranted. The item was heard at the August 2020 Commission hearing, but once again continued to the September 2020 hearing.

If the Commission approves the petition, the species will be made a candidate for endangered status for a year to determine whether the decision is appropriate. At that point, a second recommendation and vote will confer or deny final protection under the law.

Local

City of Hesperia General Plan

The City's Conservation and Open Space Elements contain goals and policies that address biological resources. The following goals and policies pertain to biological resources and are relevant to the Project:

Goal CN-3 Minimize development and set aside necessary open space near and along the surface waters as well as those washes and other water passageways located in the City to preserve and protect plant and animal species and their natural habitat dependent on such surface waters and waterways.

Policy CN-3.1 Monitor the development impacts to these surface water resources within the city.

Policy CN 3.2 Preserve areas within the Oro Grande wash and un-named wash #1 that exhibit ideal native habitat in a natural state.

Goal CN 4 Establish policies and regulations to protect the natural environment and habitat of the City's biological resources.

Policy CN-4.1 Preserve pristine open space areas and known wildlife corridors areas for conservation to protect sensitive species and their habitats.

Policy CN-4.2 Encourage the protection, preservation and long-term viability of environmentally sensitive habitats and species in the City.

Policy CN-4.3 Identify lands that are suitable for preservation for sensitive species and their habitats.

Policy CN-4.4 In those areas known as possible habitat for endangered and sensitive species, require proper assessments before authorizing development.

Policy CN-4.5 Where such assessments indicate the presence of endangered or sensitive species, require appropriate actions to preserve the habitat and protect the identified species.

Hesperia Municipal Code, Chapter 16.24 –Protected Plant Policy

Per the City's Protected Plant Policy (Hesperia Municipal Code 16.24), the City seeks to preserve the natural environment in the City while respecting the lawful development of private property. As such, native protected plants create a dilemma because of their high public appeal coupled with very limited transplant success and potential safety concerns for the public. Furthermore, Hesperia Municipal Code 16.24 states the following regarding Tentative Tract, non-single-family residential (commercial, industrial, apartments):

- Tentative Tract, non single-family residential (commercial, industrial, apartments, etc.):
  - A protected plant plan shall be prepared by a certified arborist or registered botanist.
  - An application and fee shall be completed and paid to the City.
  - Healthy, transplantable plants shall be relocated on-site or may be place in an adoption program.

In addition to the requirements previously stated, Hesperia Municipal Code 16.24 discusses Approval of an Adoption Program, as follows:

1. Approved Adoption Program

   To qualify as an approved adoption program the developer shall provide a letter on company letterhead, describing the program and the community notification process. The program shall identify the following, as a minimum.

   A. A public notice process which may include publication in local newspapers, radio advertisement, hand distributed fliers, and other noticing techniques. Noticing must occur over a period of not less than three weeks.

B. The location where the trees may be viewed by the public and a clearly identified period of at least two weeks (including weekends) when trees/plants are available for adoption.
C. The person that will be available on-site to assist those adopting trees to find the actual trees/plants for removal. An on-site or cell phone number for that person is required.
D. A note that a copy of the City Joshua Tree Transplanting Guidelines will be provided to each adopter.
E. A log showing the name, address, and phone number of each adopter and the number and type of trees/plants they received.

Note: At least 50% of the transplantable trees and plants shall be adopted or the remaining number below 50% shall be purchased at $350 per transplantable tree.

Purchased trees must be recycled at Advance Disposal.

Permits

Per the City's Protected Plant Policy (Hesperia Municipal Code 16.24), a Joshua tree relocation and removal application must be completed and fee paid to the City prior to initiation removal and/or relocation of Joshua trees. Hesperia Municipal Code Section 16.24.040 states the following:

A removal permit shall be required for the removal of any native tree or plant that is subject to the provisions of this chapter.

A. A land use application, a building permit and all other development permits (e.g. grading, mobile home set downs, etc.), shall consider and include a review of any proposed native tree or plant removal. Any approved land use application and/or development permit shall be a permit for the removal of native plants, if such land use application or development permit specifically reviews and approves such removals. Such reviews shall consider and require compliance with the provisions of this chapter.
B. The reviewing authority may require certification from an appropriate tree expert or desert native plant expert that such tree removals are appropriate, supportive of a healthy environment and are in compliance with the provisions of this article.
C. Removals of native trees or plants that are not requested in conjunction with a land use application or development permit may be accomplished only under a permit issued by either the county agricultural commission or the fire marshal, subject to the provisions of this article.
D. The building official shall require a preconstruction inspection prior to approval of development permits.
E. The duration of a plant or tree removal permit when issued in conjunction with a land use application and/or a development permit shall be coterminous with the duration of the associated application or permit, unless otherwise specified. The reviewing authority shall specify the expiration date for all other tree and/or plant removal permits.

Findings for Removals

Per Hesperia Municipal Code Section 16.24.040, the reviewing authority must authorize the removal of a native tree or plant subject to the provisions of the Hesperia Municipal Code only if the following findings are made:

A. The removal of the native tree or plant does not have a significant adverse impact on any proposed mitigation measures, soil retention, soil erosion and sediment control measures, scenic routes, flood and surface water runoff and wildlife habitats (flora and fauna), especially those with limited habitats (e.g., eagles).

B. The removal of the native tree or plant is justified for one of the following reasons:
    1. The location of the native tree or plant and/or its drip line interferes with the reasonable improvement of the site with an allowed structure, sewage disposal area, paved area or other approved improvement or ground disturbing activity. Also such improvements have been designed in such a manner as to save as many healthy native trees and/or plants as reasonably practicable in conjunction with the proposed improvements;
    2. The location of the native tree or plant and/or its drip line interferes with the planned improvement of a street or development of an approved access to the subject or adjoining private property;
    3. The location of the native tree or plant is hazardous to pedestrian or vehicular travel or safety as determined by the director of transportation, flood control and airports or other county reviewing authority;
    4. The native tree or plant or its presence interferes with or is causing excessive damage to utility services or facilities, roadways, sidewalks, curbs, gutters, pavement, sewer line(s), drainage or flood control improvements, foundations, existing structures, or municipal improvements;
    5. The condition or location of the native plant or tree is adjacent to and in such close proximity to existing or proposed structure that the native plant or tree has or will sustain significant damage.
C. Joshua trees that are proposed to be removed have been transplanted or stockpiled for future transplanting wherever possible. In the instance of stockpiling the permittee has posted a bond to insure such Joshua trees are transplanted appropriately.

4.3.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to biological resources are based on Appendix G of the CEQA Guidelines. Potential Project-related impacts analyzed in this section account for biological resources that occur or have the potential to occur on the Project site and the Off-Site Utilities Alignments. According to Appendix G of the CEQA Guidelines, a significant impact related to biological resources would occur if the Project would:

A. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
B. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
C. Have a substantial adverse effect on 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.
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.
G. Result in cumulatively considerable impacts to biological resources.

4.3.4 Impacts Analysis

Threshold A: Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less-than-Significant Impact with Mitigation Incorporated. The following section evaluates the Project's effects on plant and wildlife species identified as candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

Plant Species

Desert Native Plants

Vegetation within the Project site and Off-Site Utilities Alignments is best described as Joshua tree woodland (Holland 1986), a designated CDFW Natural Community of Concern. Dominant species found on site include Joshua tree (*Yucca brevifolia*) and California juniper (*Juniperus californica*). Other plant species observed included creosote (*Larrea tridentata*), California buckwheat (*Eriogonum fasciculatum*), and rubber rabbitbrush (*Ericameria nauseosa*). Vegetation within the southeastern portion of the Project site is more sparse and disturbed due to human activity. All plant species observed or otherwise detected during the initial field survey were noted and are listed in Appendix D-1.

On November 22, 2019, a desert native plant survey was conducted on the Project site in accordance with the California Desert Native Plants Act and Chapter 16.24 of the Hesperia Municipal Code, The desert native plant survey conformed to California Natural Plants Society's Botanical Survey Guidelines (CNPS 2001); the California Department of Fish and Wildlife's Protocols for Surveying and Evaluating Impacts to Special Status Native Populations and Sensitive Natural Communities (CDFW 2018); and the U.S. Fish and Wildlife Service's General Rare Plant Survey Guidelines (Cypher 2002). All of the desert native plant target species are conspicuous shrubs that would have been identifiable during the survey. The survey was conducted during daylight hours under weather conditions that did not preclude observation of desert native plant species (e.g., surveys were not conducted during heavy fog or rain). The survey effort provides an accurate representation of the desert native plant species that occur on the Project site. The survey conducted was thorough and comprehensive, and the results contained herein provide a reasonable, accurate assessment of desert native plant species within the Project site.

One desert native plant species was recorded on the Project site—Wiggins' cholla (*Cylindropuntia echinocarpa*)—of which 66 living individuals and 6 dead plants were documented on the Project site (Appendix D-2). Because the focused desert native plant survey was positive for Wiggins' cholla, and in accordance with the California Desert Native Plants Act and the Hesperia Municipal Code, Chapter 16.24.040, a native plant removal permit must be obtained from the City of Hesperia prior to the removal of Wiggins' cholla. No further avoidance measures or mitigation is required in addition to the permit; however permit conditions may require salvage of the on-site Wiggins' cholla and/or that these species be incorporated into the landscape plan of the Project.

Pursuant to MM-BIO-1, the Project Applicant shall submit an application and applicable fee paid to the City of Hesperia for removal or relocation of protected native desert plants under Hesperia Municipal Code Chapter 16.24. The application shall include certification from a qualified Joshua tree and native desert plant expert(s) to determine that proposed removal or relocation of protected native desert plants are appropriate, supportive of a healthy environment, and in compliance with the City of Hesperia Municipal Code. The application shall include a detailed

plan for removal of all protected plants on the Project site. The plan shall be prepared by a qualified Joshua tree and native desert plant expert(s). The plan shall include, but not be limited to, the following measures:

- Salvaged plants shall be transplanted expeditiously to either their final on-site location, or to an approved off-site area. If the plants cannot be expeditiously taken to their permanent relocation area at the time of excavation, they may be transplanted in a temporary area (stockpiled) prior to being moved to their permanent relocation site(s).
- Joshua trees shall be marked on their north facing side prior to excavation. Transplanted Joshua trees shall be planted in the same orientation as they currently occur on the Project site, with the marking on the north side of the trees facing north at the relocation site(s).
- Transplanted plants shall be watered prior to and at the time of transplantation. The schedule of watering shall be determined by the qualified tree expert and desert native plant expert(s) to maintain plant health. Watering of the transplanted plants shall continue under the guidance of qualified tree expert and desert native plant expert(s) until it has been determined that the transplants have become established in the permanent relocation site(s) and no longer require supplemental watering.

With the incorporation of mitigation, and with adherence to both the CDNPA and the Hesperia Municipal Code, impacts associated with desert native plants would be less than significant.

Joshua Trees

Joshua tree woodland is a CDFW natural community of concern. Joshua trees are also protected from harvesting without a permit under the CDFW CDNPA, Division 23 of the Food and Agricultural Code, and Chapter 16.24 of the Hesperia Municipal Code, established to comply with the CDNPA. The Project will result in the loss of Joshua tree woodland and is considered to be an incremental loss of this natural community in the region.

In accordance with Chapter 16.24 of the Hesperia Municipal Code, the preparation of a Joshua tree relocation plan is required to mitigate impacts to Joshua trees as a result of the Project. As such, a Joshua Tree Preservation, Protection, and Relocation Plan (Appendix D-3) was prepared for Project to provide detailed specifications for the Project applicant to meet the requirements of Chapter 16.24 of the Hesperia Municipal Code to protect, preserve, and mitigate impacts to Joshua trees. Chapter 16.24 of the Hesperia Municipal Code states that "it is in the public interest to preserve and protect specified desert native plants and provide for the conservation and wise use of our desert resources, through regulation, guidelines and enforcement that manage the removal or harvesting of such plants. They are also necessary to augment and coordinate with the State Department of Food and Agriculture in its efforts to implement and enforce the Desert Native Plant Act." Furthermore, the City's Protected Plant Policy (Hesperia Municipal Code 16.24) states the following for Tentative Tract, non-single-family residential (commercial, industrial, apartments):

- A protected plant plan shall be prepared by a certified arborist or registered botanist.
- An application and fee shall be completed and paid to the City.
- Healthy, transplantable plants shall be relocated on-site or may be placed in an adoption program.

The Joshua Tree Preservation, Protection, and Relocation Plan addresses the requirements of the City's Protected Plant Policy and provides details for the initial survey of the Project site's Joshua trees, detailed specifications for the protection of trees to be preserved on site, and relocation/salvage requirements for those trees requiring removal and relocation.

Pursuant to MM-BIO-1, the Project Applicant shall submit an application and applicable fee paid to the City of Hesperia for removal or relocation of protected native desert plants under Hesperia Municipal Code Chapter 16.24. The application shall include certification from a qualified Joshua tree and native desert plant expert(s) to determine that proposed removal or relocation of protected native desert plants are appropriate, supportive of a healthy environment, and in compliance with the City of Hesperia Municipal Code. The application shall include a detailed plan for removal of all protected plants on the Project site. The plan shall be prepared by a qualified Joshua tree and native desert plant expert(s). With the incorporation of mitigation, and with adherence to both the CDNPA and the Hesperia Municipal Code, impacts associated with Joshua trees would be less than significant.

Wildlife Species

Desert Tortoise

The Mojave population of the desert tortoise was listed as a federally endangered species by emergency rule on August 4, 1989, and as a threatened species by final rule on April 2, 1990. Federally designated critical habitat for the Mojave Desert population was finalized in February 1994. Mojave desert tortoises primarily inhabit creosote bush scrub, saltbush scrub, and Joshua tree woodland, generally below approximately 5,000 feet in elevation. The Project site is not within designated critical habitat for this species or within any Desert Wildlife Management Areas proposed for the desert tortoise identified in the draft West Mojave Plan (BLM 2005). The on-site vegetation has been determined to provide low-quality habitat for the desert tortoise (Appendix D-1).

Focused surveys for desert tortoise were conducted by Dudek on April 24 and May 5, 2020, within suitable habitat on the Project site. The results of the survey determined that desert tortoise are currently considered absent from the Project site and Off-Site Utilities Alignments. While suitable habitat for this species will be removed as a result of construction of the Project, this habitat is unoccupied and the Project would not result in any direct or indirect impacts to desert tortoise. Therefore, impacts associated with desert tortoise would be less than significant.

Mohave Ground Squirrel

MGS was listed as threatened in 1984 under CESA. The MGS inhabits desert areas with deep sandy or gravelly friable soils and an abundance of annual herbaceous vegetation. This species prefers arid flat terrains with desert shrubs. Habitat for the MGS occurs in alluvial fans where desert pavement is absent including creosote bush scrub, shadscale scrub, alkali sink, and Joshua tree woodland. Nests are in underground burrows and individuals may use several different burrows.

The Project site is located in an area that is cut off from known MGS populations by I-15 and U.S. Highway 395 to the east and by the California Aqueduct to the north. The nearest known MGS population is a remnant population in Adelanto, which is more than 10 miles to the north. The nearest CNDDB records to the study area are north of the California Aqueduct. The on-site vegetation has been determined to provide low-/marginal-quality habitat for MGS.

MGS trapping surveys were conducted in 2020, with an initial visual assessment of the Project site was conducted by on March 29, 2020. The visual survey consisted of driving and walking throughout the Project site to identify suitable habitat for MGS. This included identifying plants known to provide forage material for MGS such as spiny hopsage, winterfat, Cooper's boxthorn, Anderson's desert thorn, and Joshua tree. Areas supporting suitable habitat for MGS where these plants are concentrated were recorded using ArcGIS Collector GPS software. Suitable soil types for burrowing and burrow densities were also noted.

The visual survey concluded that the Project site provides marginally suitable habitat for MGS. Specifically, foraging plants for MGS such as spiny hopsage, winterfat, Cooper's boxthorn, Anderson's thornbush, and Joshua tree were observed throughout the Project site along with suitable substrate that includes friable soils for burrowing. However, surrounding roadways and various forms of human presence, including off-highway vehicle impacts, have marginalized the habitat quality.

Live-trap captures consisted entirely of non-target species, including white-tailed antelope ground squirrel (*Ammospermophilus leucurus*), California ground squirrel (*Otospermophilus beecheyi*), Panamint kangaroo rat (*Dipodomys panamintinus*), Great Basin whiptail (*Aspidoscelis tigris tigris*), desert spiny lizard (*Sceloporus magister*), side-blotched lizard (*Uta stansburiana*), cactus wren (*Campylorhynchus brunneicapillus*) and California thrasher (*Toxostoma redivivum*). No MGS were trapped during the surveys.

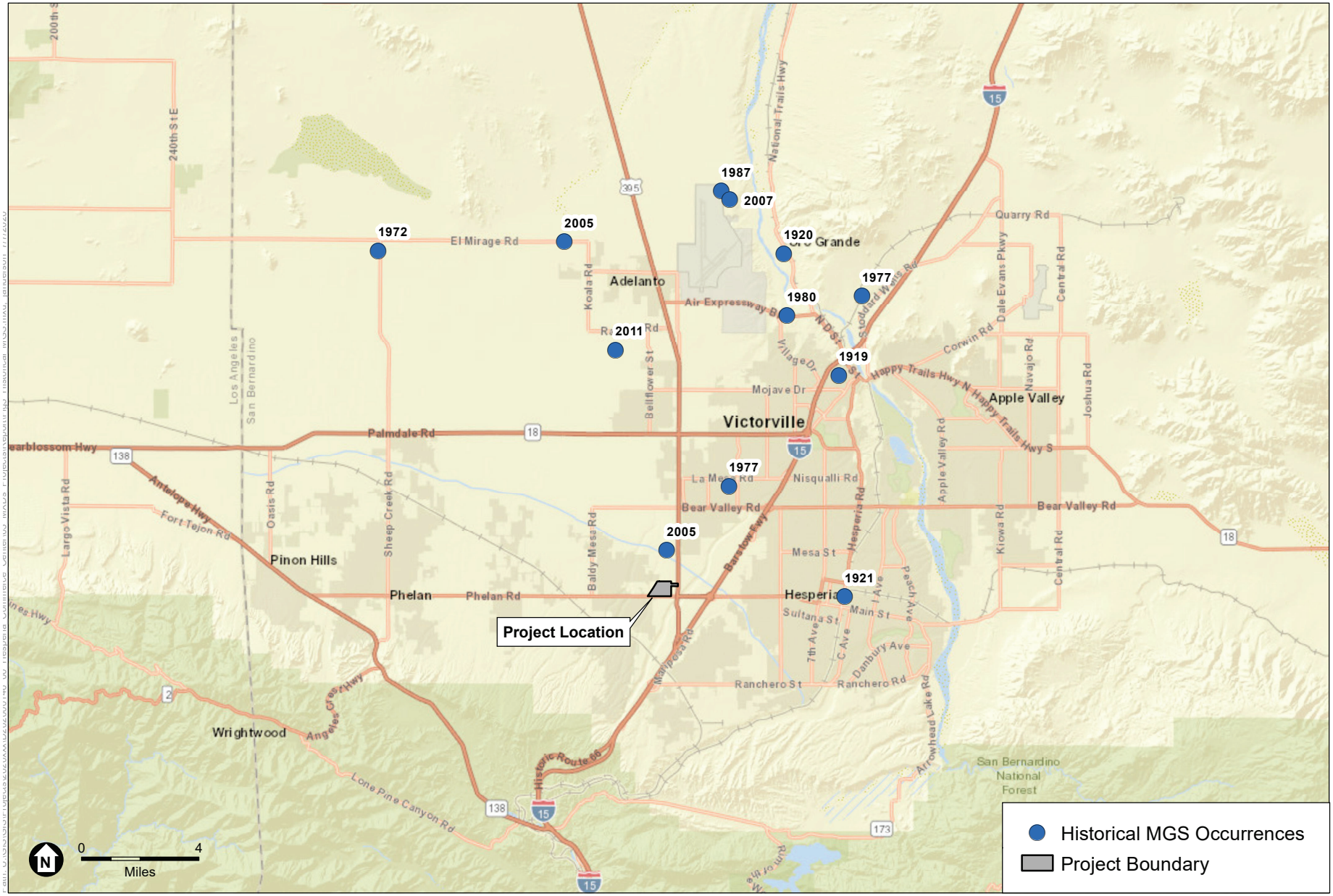
Five camera stations were set-up in suitable habitat areas not surveyed by north and south grids. Each camera station consisted of a Reconyx HF2X Hyperfire 2 Covert Infrared camera, secured to a Joshua tree and facing a bait station. The bait station consisted of a bait block enclosed in a wire mesh cage to prevent predation by ravens, with entrances on all sides, approximately five feet away from the camera. All cameras operated for two 5-day periods from April 2-7, 2020, and May 9-14, 2020, and were programmed with the settings recommended in Delaney et al. (2017).

The five camera trap stations detected white-tailed antelope ground squirrel, California ground squirrel, Panamint kangaroo rat, desert cottontail (*Sylvilagus audubonii*), black-tailed jackrabbit (Lepus californicus), domestic dog, common raven, California scrub jay (*Aphelocoma californica*), California quail, as well as people. No MGS were observed at any of the camera stations.

Disturbances from human presence and fragmentation from surrounding roadways, including off-highway vehicle use and illegal waste dumping within the Project site has had a negative effect on habitat quality for MGS. Records from the California Natural Diversity Database (CNDDB) reveal two occurrences of MGS near the Project site that were detected in 2005 and 2011 (Figure 4.3-3, Historical Mojave Ground Squirrel Occurrences) (Appendix D-6). However, both these records are from sites located across the California Aqueduct, making dispersal to the Project site highly unlikely, because the aqueduct creates a considerable barrier to dispersal.

Although there is marginally suitable MGS habitat present on the Project site, no MGS were detected at the camera stations or captured during the trapping surveys. Additionally, the high density of California juniper on site is indicative that the area is within the Mohave-transmontane transition zone, an area with low likelihood of use by MGS. As such, the survey results indicate that MGS do not inhabit the Project site.

While MGS is not present on the Project site, there is still a possibility that MGS can be present along the Off-Site Utilities Alignments. As such, prior to any construction work being conducted for the off-site utilities (domestic water, stormwater drain, sanitary sewer), focused surveys for MGS shall be required to determine its presence or absence and any potential Project effects to this species, pursuant to MM-BIO-2. Focused surveys need only to occur along segments of the Off-Site Utilities Alignments that contain suitable or potentially suitable habitat for MGS, as determined by a qualify biologist. The focused MGS surveys shall be conducted either in accordance with the January 1991 CDFW guidelines, as modified in January 2003, or in accordance with any modified survey methodology as approved in writing by CDFW. With the incorporation of mitigation, impacts associated with MGS would be less than significant.



SOURCE: ESA 2020

FIGURE 4.3-3

Historical Mojave Ground Squirrel Occurrences

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Burrowing Owl

Burrowing owl was not observed on the Project site; however, suitable habitat exists on site, and the species could eventually occupy the Project site prior to construction. Pursuant to the California Fish and Game Code and the MBTA, a pre-construction survey in compliance with Staff Report on Burrowing Owl Mitigation, State of California Natural Resource Agency, Department of Fish and Game, May 7, 2012 (CDFW 2012) would be necessary to reevaluate the locations of potential burrowing owl burrows located within the Project limits so take of owls or active owl nests can be avoided. Consistent with MM-BIO-3, a pre-construction survey for burrowing owl shall be conducted in areas supporting potentially suitable habitat and within 30 days prior to the start of construction activities. Therefore, with the incorporation of mitigation, impacts associated with burrowing owl would be less than significant.

Desert Kit Fox and American Badger

Neither the Biological Resources Letter Report (Appendix D-1) nor any other subsequent fieldwork and reporting observed desert kit fox (*Vulpes macrotis arsipus)* or American badger on the Project site or identified suitable habitat for these species within the Project area. The desert kit fox lives on the open desert, on creosote bush flats, and amongst the sand dunes, while American badgers *(Taxidea taxus)* prefer open scrub or grassy areas (NPS 2015; USGS 2020). The Project site is predominantly comprised of a vegetation community best described as Joshua tree woodland (Holland 1986), and lacks creosote bush flats, sand dunes, or larger areas of open scrub or grassy areas. Thus, the Project site is not expected to support either desert kit fox or American badger.

Notwithstanding, in their scoping comment letter dated December 19, 2019 (Appendix A, Initial Study, Notice of Preparation, and Scoping Comments), CDFW staff requested that development of a desert kit fox and American badger mitigation and monitoring plan is recommended. As such, in an abundance of caution and in order to ensure that potential impacts to these species are less than significant, the Project Applicant shall prepare a mitigation and monitoring plan that addresses desert kit fox and American badger if either species is determined to occur on the Project site prior to the start of construction, pursuant to MM-BIO-4. With the incorporation of mitigation, impacts associated with desert kit fox and American badger would be less than significant.

Nesting Migratory Birds and Raptors

Similar to most other sites containing trees, shrubs, and other vegetation, the Project site contains opportunities for birds and raptors to nest on site. Nesting bird species with potential to occur within the Project site are protected by California Fish and Game Code Sections 3503, 3503.5, and 3800, and by the MBTA (16 USC 703–711). These laws regulate the take, possession, or destruction of the nest or eggs of any migratory bird or bird of prey. However, the USFWS has recently determined that the MBTA should apply only to "… affirmative actions that have as their purpose the taking or killing of migratory birds, their nests, or their eggs" and will not be applied to incidental take of migratory birds pursuant to otherwise lawful activities.

To ensure compliance with the California Fish and Game Code and to avoid potential impacts to nesting birds, it is recommended that the vegetation removal activities be conducted outside the general bird nesting season (January 15 through August 31), and if vegetation cannot be removed outside the bird nesting season, a pre-construction nesting bird survey by a qualified biologist is required prior to vegetation removal. This requirement is outlined in MM-BIO-5. With the incorporation of mitigation, impacts associated with nesting birds and raptors would be less than significant.

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

Less-than-Significant Impact with Mitigation Incorporated. Joshua tree woodland is a CDFW natural community of concern. Joshua trees are also protected from harvesting without a permit under the CDNPA, Division 23 of the Food and Agricultural Code, and Chapter 16.24 of the Hesperia Municipal Code, established to comply with the CDNPA. The Project will result in the loss of Joshua tree woodland and is considered to be an incremental loss of this natural community in the region.

In accordance with Chapter 16.24 of the Hesperia Municipal Code, the preparation of a Joshua tree relocation plan is required to mitigate impacts to Joshua trees as a result of the Project. As such, a Joshua Tree Preservation, Protection, and Relocation Plan (Appendix D-3) was prepared for Project to provide detailed specifications for the Project applicant to meet the requirements of Chapter 16.24 of the Hesperia Municipal Code to protect, preserve, and mitigate impacts to Joshua trees.

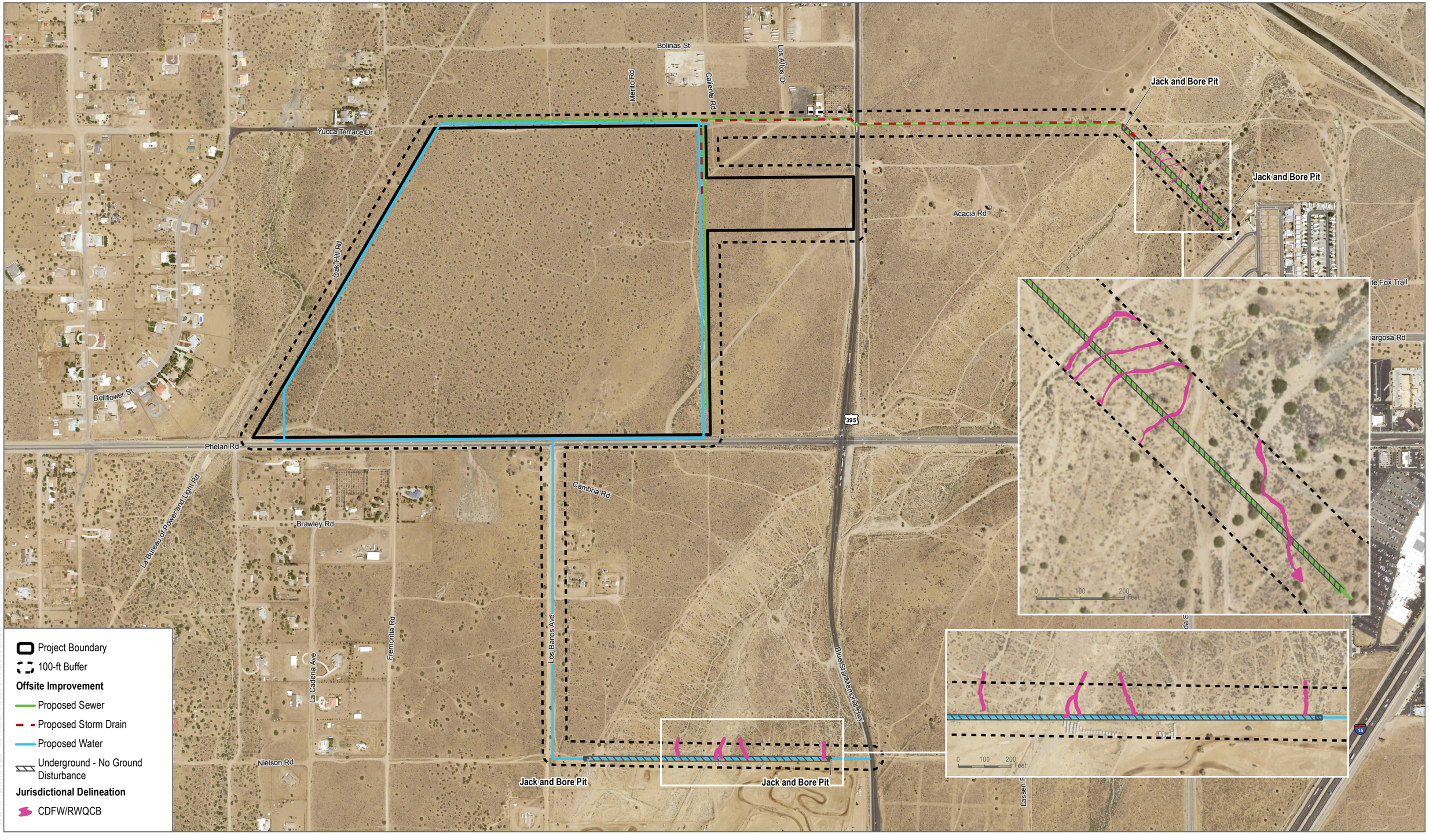
The Joshua Tree Preservation, Protection, and Relocation Plan addresses the requirements of the City's Protected Plant Policy and provides details for the initial survey of the Project site's Joshua trees, detailed specifications for the protection of trees to be preserved on site, and relocation/salvage requirements for those trees requiring removal and relocation.

Pursuant to MM-BIO-1, the Project Applicant shall submit an application and applicable fee paid to the City of Hesperia for removal or relocation of protected native desert plants under Hesperia Municipal Code Chapter 16.24. The application shall include certification from a qualified Joshua tree and native desert plant expert(s) to determine that proposed removal or relocation of protected native desert plants are appropriate, supportive of a healthy environment, and in compliance with the City of Hesperia Municipal Code. The application shall include a detailed plan for removal of all protected plants on the Project site. The plan shall be prepared by a qualified Joshua tree and native desert plant expert(s).

With the incorporation of mitigation, and with adherence to both the CDNPA and the Hesperia Municipal Code, impacts associated with Joshua tree woodland would be less than significant.

Threshold C: Would the Project 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?

Less-than-Significant Impact. No potential jurisdictional features subject to regulation by ACOE, CDFW, or RWQCB were found to be present within the limits of the Project site (Figure 4.3-4, Aquatic Resources Delineation). However, the Off-Site Utilities Alignments would traverse and come in close proximity to waters of the state and waters potentially subject to CDFW jurisdiction, as described in detail in Appendix D-6. As currently designed, the Off-Site Utilities Alignments traverse several upland ephemeral drainage features associated with Oro Grande Wash. This wash has hydrologic downstream connectivity with the Mojave River but does not show signs of a clearly defined ordinary high water mark (OHWM) or an established bed and bank. There is no associated riparian vegetation, and the soils are sandy, do not exhibit hydric soil indicators, and are not considered hydric soils in California. Therefore, the upland drainages on the Project are considered non-wetland waters.



SOURCE: USDA 2016; Westland 2020

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FIGURE 4.3-4

Aquatic Resources Delineation

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Upland ephemeral drainages in desert environments are currently not considered a regulated water of the U.S. that is regulated under Section 404 of the CWA. However, the RWQCB still exerts jurisdiction over ephemeral drainages not regulated by the ACOE as a result of the Porter-Cologne Act. Additionally, CDFW would also exert jurisdiction over ephemeral drainages, particularly if they provided habitat for wildlife species. Based on current site plans, the proposed Off-Site Utilities Alignments would bore beneath the Oro Grande Wash at two different locations both east and south/southeast of the Project site, with the proposed sanitary sewer line and domestic water line will be placed outside of any potentially jurisdictional limits. By boring beneath the jurisdictional limits within this drainage, the Project will eliminate the potential impacts to regulated waters of the state and CDFW non-wetland waters.

However, if the final Project design results in the encroachment or placement of fill within the jurisdictional limits of Oro Grande Wash, adherence to the Porter-Cologne Act and Section 1600 et seq. of California Fish and Game Code will be required by the Project. A Waste Discharge Requirement (WDR) from the RWQCB and a Streambed Alteration Agreement (SAA) from CDFW would be required to adhere to the regulatory requirements. These permits would need to be issued prior to the start of construction within Oro Grande Wash. Therefore, with adherence to both the Porter-Cologne Act and Section 1600 et seq. of California Fish and Game Code, impacts associated with jurisdictional waters of the state would be less than significant.

Threshold D: Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less-than-Significant Impact. The Project site is located in an area of encroaching development and has been regionally isolated by U.S. Highway 395 to the east and by the California Aqueduct to the north. As a result, the Project site does not provide for regional wildlife movement or serve as a regional wildlife corridor. However, on a local level, wildlife may move across the site when migrating or foraging/hunting. Therefore, wildlife movement may be temporarily disrupted during the construction phase of the Project, although this effect would be both localized and short-term in nature. Nearby corridors that could support wildlife movement in the region, include the LA Bureau of Power and Light Road immediately to the west and the Oro Wash further to the east, would not be impacted by the Project. Further, the Project site does not contain nursery sites, such as bat colony roosting sites or colonial bird nesting areas.

All off-site utilities would be located below grade, and thus, would not represent an impedance to wildlife movement. Similar to the construction work being conducted on the Project site, the construction activities associated with the off-site utilities have the potential to temporarily disrupt wildlife movement in the immediate vicinity of construction; however, any impact would be both localized and short-term in nature. Therefore, impacts associated with wildlife movement, wildlife corridors, and wildlife nursery sites would be less than significant.

Threshold E: Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Desert Native Plants

Less-than-Significant Impact with Mitigation Incorporated. One desert native plant species was recorded on the Project site—Wiggins' cholla (*Cylindropuntia echinocarpa*)—of which 66 living individuals and 6 dead plants were documented on the Project site (Appendix D-2). Because the focused desert native plant survey was positive for Wiggins' cholla, and in accordance with the California Desert Native Plants Act and the Hesperia Municipal Code, Chapter 16.24.040, a native plant removal permit must be obtained from the City of Hesperia prior to the removal

of Wiggins' cholla. No further avoidance measures or mitigation is required in addition to the permit; however permit conditions may require salvage of the on-site Wiggins' cholla and/or that these species be incorporated into the landscape plan of the Project.

Pursuant to MM-BIO-1, the Project Applicant shall submit an application and applicable fee paid to the City of Hesperia for removal or relocation of protected native desert plants under Hesperia Municipal Code Chapter 16.24. The application shall include certification from a qualified Joshua tree and native desert plant expert(s) to determine that proposed removal or relocation of protected native desert plants are appropriate, supportive of a healthy environment, and in compliance with the City of Hesperia Municipal Code. The application shall include a detailed plan for removal of all protected plants on the Project site. The plan shall be prepared by a qualified Joshua tree and native desert plant expert(s). With the incorporation of mitigation, and with adherence to both the CDNPA and the Hesperia Municipal Code, impacts associated with desert native plants would be less than significant.

Joshua Trees

Less-than-Significant Impact with Mitigation Incorporated. In accordance with Chapter 16.24 of the Hesperia Municipal Code, the preparation of a Joshua tree relocation plan is required to mitigate impacts to Joshua trees as a result of the Project. As such, a Joshua Tree Preservation, Protection, and Relocation Plan (Appendix D-3) was prepared for Project to provide detailed specifications for the Project applicant to meet the requirements of Chapter 16.24 of the Hesperia Municipal Code to protect, preserve, and mitigate impacts to Joshua trees.

The Joshua Tree Preservation, Protection, and Relocation Plan addresses the requirements of the City's Protected Plant Policy and provides details for the initial survey of the Project site's Joshua trees, detailed specifications for the protection of trees to be preserved on site, and relocation/salvage requirements for those trees requiring removal and relocation.

Pursuant to MM-BIO-1, the Project Applicant shall submit an application and applicable fee paid to the City of Hesperia for removal or relocation of protected native desert plants under Hesperia Municipal Code Chapter 16.24. The application shall include certification from a qualified Joshua tree and native desert plant expert(s) to determine that proposed removal or relocation of protected native desert plants are appropriate, supportive of a healthy environment, and in compliance with the City of Hesperia Municipal Code. The application shall include a detailed plan for removal of all protected plants on the Project site. The plan shall be prepared by a qualified Joshua tree and native desert plant expert(s). With the incorporation of mitigation, and with adherence to both the CDNPA and the Hesperia Municipal Code, impacts associated with Joshua tree woodland would be less than significant.

Threshold F: Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Less-than-Significant Impact. The Project site and the Off-Site Utilities Alignments are located within the California Desert Conservation Area Plan (CDCA) (BLM 1980). The Project site and the off-site utilities are also located within the Draft West Mojave Plan (BLM 2005) and the Desert Renewable Energy Conservation Plan (DRECP) (BLM 2016) areas. The West Mojave Plan and DRECP are amendments to the CDCA. The BLM issued a Record of Decision for the West Mojave Plan in 2006, although the West Mojave Plan has not been formally adopted. The Project will not conflict with the conservation criteria associated with the CDCA or DRECP. Therefore, impacts associated with an adopted habitat conservation plan would be less than significant.

Threshold G: Would the Project result in cumulatively considerable impacts to biological resources?

Less-than-Significant Impact with Mitigation Incorporated. The Project would result in a potentially cumulatively considerable impacts to Joshua tree woodland vegetation on the Project site. Joshua trees are locally protected by the City of Hesperia and by the Desert Native Plant Act. The Applicant would be required to apply for a permit from the City prior to the removal of any Joshua trees on the Project site and comply with the City's permit conditions. While Project adherence to the conditions of the permit would reduce impacts to a less than significant level on a Project scale, the cumulative result of the removal of approximately 195 acres of Joshua tree woodland would be considered a potentially cumulative impact.

Pursuant to MM-BIO-1, the Project Applicant shall submit an application and applicable fee paid to the City of Hesperia for removal or relocation of protected native desert plants under Hesperia Municipal Code Chapter 16.24. The application shall include certification from a qualified Joshua tree and native desert plant expert(s) to determine that proposed removal or relocation of protected native desert plants are appropriate, supportive of a healthy environment, and in compliance with the City of Hesperia Municipal Code. The application shall include a detailed plan for removal of all protected plants on the Project site. The plan shall be prepared by a qualified Joshua tree and native desert plant expert(s). Implementing this mitigation measure would reduce potential impacts to a less than significant level and would significantly reduce the potential for a cumulative considerable impact to Joshua tree.

Potential impacts to special-status species and nesting birds would be reduced to a less than significant level through Project implementation of Mitigation Measures MM-BIO-2 through MM-BIO-5. Implementing these mitigation measures would reduce potential impacts to a less than significant level and would significantly reduce the potential for direct or indirect take of any special-status species. Therefore, there would not be a cumulatively considerable impact on any special-status species. Additionally, the Project would not result in a significant impact to jurisdictional waters, wildlife corridors and linkages, local policies and regional conservation plans, and the Project would not contribute to a cumulative impact on these resources.

4.3.5 Mitigation Measures and Level of Significance After Mitigation

Threshold A: Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

The Project could result in potentially significant impacts to species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service, including native desert plants protected under the CNDPA, Joshua trees, Mohave ground squirrel, burrowing owl, desert kit fox, American badger, and nesting migratory birds and raptors. Incorporation of MM-BIO-1, MM-BIO-2, MM-BIO-3, MM-BIO-4, and MM-BIO-5 is required to reduce impacts to **less than significant with mitigation incorporated**.

MM-BIO-1 Prior to the issuance of grading permits, the Project Applicant shall submit an application and applicable fee paid to the City of Hesperia for removal or relocation of protected native desert plants under Hesperia Municipal Code Chapter 16.24. The application shall include certification from a qualified Joshua tree and native desert plant expert(s) to determine that proposed removal or relocation of protected native desert plants are appropriate, supportive of a healthy environment, and in compliance with the City of Hesperia Municipal Code. If suitable space occurs on the Project site, protected plants subject to Hesperia Municipal Code Chapter 16.24 shall be

relocated on site and incorporated into the on-site landscaping. As permitted by the City of Hesperia, if suitable space does not occur on the Project site to relocate each and every protected plants subject to Hesperia Municipal Code Chapter 16.24, the Project Applicant shall coordinate with the City of Hesperia to identify an appropriate off-site location for planting.

The application shall include a detailed plan for removal of all protected plants on the Project site. The plan shall be prepared by a qualified Joshua tree and native desert plant expert(s). The plan shall include, but not be limited to, the following measures:

- Salvaged plants shall be transplanted expeditiously to either their final on-site location, or to an approved off-site area. If the plants cannot be expeditiously taken to their permanent relocation area at the time of excavation, they may be transplanted in a temporary area (stockpiled) prior to being moved to their permanent relocation site(s).
- Joshua trees shall be marked on their north facing side prior to excavation. Transplanted Joshua trees shall be planted in the same orientation as they currently occur on the Project site, with the marking on the north side of the trees facing north at the relocation site(s).
- Transplanted plants shall be watered prior to and at the time of transplantation. The schedule of watering shall be determined by the qualified tree expert and desert native plant expert(s) to maintain plant health. Watering of the transplanted plants shall continue under the guidance of qualified tree expert and desert native plant expert(s) until it has been determined that the transplants have become established in the permanent relocation site(s) and no longer require supplemental watering.

MM-BIO-2 Although protocol surveys and trapping on the Project site in 2020 concluded that Mohave ground squirrel (MGS) is absent from the Project site, the Off-Site Utilities Alignments—or portions thereof—may provide suitable habitat for the species. Prior to any construction work being conducted for the off-site utilities (domestic water, stormwater drain, sanitary sewer), focused surveys for MGS shall be required to determine its presence or absence and any potential Project effects to this species. Focused surveys need only to occur along segments of the Off-Site Utilities Alignments that contain suitable or potentially suitable habitat for MGS, as determine by a qualify biologist. The focused MGS surveys shall be conducted either in accordance with the January 1991 California Department of Fish and Wildlife (CDFW) guidelines, as modified in January 2003, or in accordance with any modified survey methodology as approved in writing by CDFW.

If the surveys conclude that MGS is not found within the Off-Site Utilities Alignments, no additional subsequent activities are required. In the event that the surveys determine that MGS is present within the areas to be either temporarily or permanently disturbed as a result of construction of the off-site utilities, the Project applicant shall be required to obtain an Incidental Take Permit (ITP) from CDFW under Section 2081 of California Fish and Game Code. The ITP process shall be coordinated with the regional CDFW office. The ITP shall include an analysis of whether Project impacts would jeopardize the continued existence of the species, provide suitable avoidance and minimization measures to reduce potential impacts, and adequate mitigation through conservation or mitigation banking.

MM-BIO-3 One pre-construction burrowing owl clearance survey shall be completed no more than 14 days before initiation of site preparation or grading activities, and a second survey shall be completed

within 24 hours of the start of site preparation or grading activities. If ground-disturbing activities are delayed or suspended for more than 30 days after the pre-construction surveys, the Project site shall be resurveyed. Surveys for burrowing owl shall be conducted in accordance with protocols established in the Staff Report on Burrowing Owl Mitigation (Department of Fish and Game, March 2012) or current version.

If burrowing owls are detected, disturbance to burrows shall be avoided during the nesting season (February 1 through August 31). Buffers will be established around occupied burrows in accordance with guidance provided in the Staff Report on Burrowing Owl Mitigation (Department of Fish and Game, March 2012) or current version. No Project activities shall be allowed to encroach into established buffers without the consent of a monitoring biologist. The buffer shall remain in place until it is determined that occupied burrows have been vacated or the nesting season has completed.

Outside of the nesting season, passive owl relocation techniques approved by the California Department of Fish and Wildlife (CDFW) shall be implemented. Owls shall be excluded from burrows in the immediate Project area and within a buffer zone by installing one-way doors in burrow entrances. These doors will be placed at least 48 hours prior to ground-disturbing activities. Compensatory mitigation for permanent loss of owl habitat will be provided following the guidance in the Staff Report on Burrowing Owl Mitigation (Department of Fish and Game, March 2012) or current version. The Project area shall be monitored daily for one week to confirm owl departure from burrows prior to any ground-disturbing activities.

Where possible, burrows will be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe shall be inserted into the tunnels during excavation to maintain an escape route for any wildlife inside the burrow.

MM-BIO-4 A pre-construction survey for American badger and desert kit fox shall be conducted in suitable habitat areas on the Project site and Off-Site Utilities Alignments within 10 days prior to the start of construction to determine the presence/absence of either species. If either species is discovered during the survey, an American Badger/Desert Kit Fox Mitigation and Monitoring Plan shall be developed as recommended by the California Department of Fish and Wildlife (CDFW) in their Notice of Preparation comment letter dated December 19, 2019. The Mitigation and Monitoring Plan shall include avoidance and minimization measures to reduce potential impacts to either species, as well as compensatory mitigation to offset direct or indirect impacts. The plan will be developed in consultation with CDFW. At a minimum, the plan shall:

- Identify pre-construction survey methods for American badger and desert kit fox;
- Describe feasible pre-construction and construction-phase avoidance methods,
- Describe pre-construction and construction-phase relocation methods, including the possibility for passive relocation;
- For burrows that will not be impacted by the Project, identify an appropriate construction exclusion zones for both active and natal burrows;
- Coordinate survey findings prior to and during construction to meet the information needs of wildlife health officials in monitoring the health of kit fox populations.

MM-BIO-5 Construction activities should avoid the migratory bird nesting season (typically February 1 through August 31), to reduce any potential significant impact to birds that may be nesting on the study area. If construction activities must occur during the migratory bird nesting season, an avian nesting survey of the Project site and within 500 feet of all impact areas must be conducted to determine the presence/absence of protected migratory birds and active nests. The avian nesting survey shall be performed by a qualified wildlife biologist within 72 hours prior to the start of construction in accordance with the MBTA (16 USC 703–712) and California Fish and Game Code Sections 3503, 3503.5, and 3513. If an active bird nest is found, the nest shall be flagged and mapped on the construction plans along with an appropriate buffer established around the nest, which will be determined by the biologist based on the species' sensitivity to disturbance (typically 300 feet for passerines and 500 feet for raptors and special-status species). The nest area shall be avoided until the nest is vacated and the juveniles have fledged. The nest area shall be demarcated in the field with flagging and stakes or construction fencing. On-site construction monitoring shall also be conducted when construction occurs in close proximately to an active nest buffer. No Project activities may encroach into established buffers without the consent of a monitoring biologist. The buffer shall remain in place until is determined the nestlings have fledged and the nest is no longer considered active.

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

The Project could result in potentially significant impact to Joshua tree woodland, a CDFW natural community of concern. Incorporation of MM-BIO-1 is required to reduce impacts to **less than significant with mitigation incorporated**.

Threshold C: Would the Project 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?

The Project would result in **less-than-significant impacts** to state or federally protected wetlands. No mitigation is required.

Threshold D: Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The Project would result in **less-than-significant impacts** to wildlife movement or wildlife nursery sites. No mitigation is required.

Threshold E: Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Project could result in potentially significant impacts to native desert plants and Joshua trees, both of which are addressed by state and local plant and tree preservation regulations. Incorporation of MM-BIO-1 is required to reduce impacts to **less than significant with mitigation incorporated**.

Threshold F: Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The Project would result in **less-than-significant impacts** to an adopted conservation plan. No mitigation is required.

Threshold G: Would the Project result in cumulatively considerable impacts to biological resources?

The Project could contribute to a cumulative considerable impact related to native desert plants protected under the CNDPA, Joshua trees, Mohave ground squirrel, burrowing owl, desert kit fox, American badger, and nesting migratory birds and raptors. Incorporation of MM-BIO-1, MM-BIO-2, MM-BIO-3, MM-BIO-4, and MM-BIO-5 is required to reduce impacts to **less than significant with mitigation incorporated**.

4.3.6 References Cited

14 CCR 15000–15387 and Appendix A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

16 USC 703–712. Migratory Bird Treaty Act, as amended.

16 USC 668–668d. Bald and Golden Eagle Protection Act.

16 USC 1531–1544. Endangered Species Act, as amended.

ACOE (U.S. Army Corps of Engineers). 1987. *Corps of Engineers Wetland Delineation Manual.* Online ed. Environmental Laboratory, Wetlands Research Program Technical Report Y-87-1. Vicksburg, Mississippi: U.S. Army Engineer Waterways Experiment Station. January 1987. https://www.fedcenter.gov/_kd/go.cfm?destination=ShowItem &Item_ID=6403.

ACOE. 2008. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0).* Environmental Laboratory, ERDC/EL TR-08-28. Vicksburg, Mississippi: U.S. Army Engineer Research and Development Center. September 2008. http://el.erdc.usace.army.mil/elpubs/pdf/trel08-28.pdf.

BLM (Bureau of Land Management). 1980. Desert Conservation Area Plan. 1980. https://eplanning.blm.gov/public_projects/lup/66949/82080/96344/CDCA_Plan.pdf

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California Fish and Game Code, Sections 3500–3516. Division 4: Birds and Mammals, Part 2: Birds.

California Fish and Game Code, Section 3801. Division 1: Fish and Game Commission, Part 2: Game, Furbearers, Nongame, and Depredators, Chapter 6: Nongame Animals.

California Fish and Game Code, Section 4700. Fully Protected Mammals.

California Fish and Game Code, Section 5050. Fully Protected Reptiles and Amphibians.

California Fish and Game Code, Section 5515. Fully Protected Fish.

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4.4 Cultural, Tribal Cultural, and Paleontological Resources

This section describes the existing cultural, tribal cultural, and paleontological resources conditions of the Hesperia Commerce Center II Project (Project) site, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the Project.

In addition to the documents incorporated by reference (see Section 2.7 of Chapter 2 of this Environmental Impact Report [EIR]), the following analysis is based, in part, on the following sources:

- *Cultural Resources Assessment* prepared by LSA in August 2019 (Appendix E-1)
- *Supplemental Cultural Resources Survey Results Memorandum* prepared by Dudek in July 2020 (Appendix E-2)
- *Tribal Consultation Record*s provided by the City of Hesperia in June 2020 (Appendix E-3)

4.4.1 Existing Conditions

Prehistoric Setting

The Project site is situated in a mostly flat desert landscape north of the San Bernardino Mountains, approximately 9 miles from the north-flowing Mojave River. Members of the Serrano Indian tribes were the first inhabitants of the region. Like other Native American groups in Southern California, they were semi-nomadic hunter-gatherers who subsisted by exploitation of seasonably available plant and animal resources. Although they exploited whatever flora was available in the area they happened to be, generally they collected acorns, pinion nuts, honey, mesquite, yucca, and cactus fruits, in addition to various seeds, bulbs, and roots. Plants were consumed both raw and cooked. Food processing involved the use of manos, metates, mortars, and pestles. Antelope, deer, mountain sheep, rabbits, and rodents were killed and captured, and the most common hunting implements were the bow and arrow, throwing stick, traps, snares, and deadfalls. Meat was prepared in earth ovens, by boiling in watertight baskets, or by parching (Appendix E-1).

Most of the Serrano lived in small villages near reliable sources of water (springs, perennial seeps, streams, and small lakes) (Appendix E-1). They lived in tule-covered, dome-shaped structures and the basic settlement unit was a village with a number of small satellite resource-gathering camps. The Serrano had a patrilineal society composed of clans and families linked by both ancestry and ceremony. Three clans divided this group: the Mohineyam, the Yuhevatam, and the Maringayam.

Travel through Cajon Pass between the desert and the San Bernardino Valley was initiated by the Serrano and other Native American groups via what became known as the Old Spanish Trail, as discussed in further detail below (Appendix E-1).

With the Spanish intrusion came a drastic change in lifestyle for the native inhabitants of Southern California. Incorporation of the indigenous populations into the mission system led to the disruption of native cultures and changes in subsistence and land use practices. Mission San Gabriel, established in 1771, is presumed to have had a limited effect on the Serrano population until the San Bernardino Asistencia were established in what would become the Redlands area around 1820 (Harley 1988). Within a short time, the missions controlled many ranchos where Native Americans lived and worked.

Historic Setting

The history of the Hesperia region is inexorably linked to travel and transportation, and the greater Project area was first used as a travel corridor. Following the establishment of Spanish missions and presidios in Southern California in the mid-1700s, the Spanish explored the desert for an overland route to the Colorado River. The first European to take what has become known as the Old Spanish Trail was Padre Garcés who had come from the Colorado River and who in 1776, followed the course of the Mojave River on his way to the Cajon Pass and into San Bernardino. During the Spanish Period (1769-1821) and Mexican Period (1821-1848), this route saw subsequent use by explorers, soldiers, missionaries and traders. Subsequently, during the American Period (1848-Present), the route was utilized by military, Mormon pioneers, wagon freighters, and eventually railroad surveyors. Following the annexation of California to the United States in 1848, wagons started to accompany pack trains along the trail. Ultimately, the trail proved of limited use for wheeled transport and was superseded by other routes through the region during the mid-19th century (Appendix E-1).

The history of the City can be traced to 1869, when 35,000 acres of government land was purchased by Max Strobel. Shortly thereafter, he turned it over to a group of German investors from San Francisco who intended to subdivide and colonize the area. Development was slow in occurring, however, until 1885 when the California Southern Railway was completed through the City. The alignment of the old Railway still exists in the form of the BNSF Rail Road Line that passes through City. With the advent of the automobile, Old Trails Highway (Route 66) went directly through Hesperia. However, the old highway was realigned in 1924 and traffic through the City's downtown diminished. Interest in the City was revived in 1954 when the Hesperia Land and Development Company purchased the entire Hesperia township, composed of approximately 23,000 acres. The town was subdivided and marketed to buyers in the Los Angeles basin. As many as 1,500 homes were under construction within four years of the purchase. Most of Hesperia's streets were laid out and constructed in the mid-1950s. A surge in development in the 1980s formed the foundation for the current community, which was incorporated in 1988.

Background Research

Cultural Resources Records Search

On December 3, 2018, a cultural resources records search was conducted for the Project area at the South Central Coastal Information Center (SCCIC) located at California State University, Fullerton. It included a review of all recorded historic and prehistoric archaeological sites within one mile of the Project, which included the Off-Site Utilities Alignments, as well as a review of known cultural resource survey and excavation reports. In addition, the California State Historic Property Data File, which includes the National Register of Historic Places, California Historical Landmarks, and California Points of Historical Interest, was searched.

Previously Conducted Cultural Resource Studies

Data from the SCCIC indicates there have been 33 cultural resource studies previously conducted within one mile of the Project site, with several that included portions or the entirety of the Project area. Details pertaining to these investigations are listed in Table 4.4-1.

Table 4.4-1. Previous Technical Studies Within the 1-Mile Search Buffer

Report No.	Other IDs	Year	Author(s)	Report Title	Affiliation	Resources
SB-00191	NADB-R - 1060191;Voided - 73-12.2A	1973	Smith, Gerald A.	Archaeological, Historical and Paleontological Site Survey For County Service Area No. 70 Improvement Zone "J", Assessment of Impact and Recommendations	San Bernardino County Museum Association	36-002208
SB-01219	NADB-R - 1061219;	1981	Hall, Matthew C., Philip J. Wilke, Doran L. Cart, and James D. Swenson	An Archaeological Survey of The Proposed Southern California Edison Ivanpah Generating Station, Plant Site, and Related Rail, Coal Slurry, Water and Transmission Line Corridors, San Bernardino County, California, and Clark County, Nevada	Archaeological Research Unit, UCR	36-001065, 36-001066, 36-001933, 36-002131, 36-002402, 36-002690, 36-002978, 36-003728, 36-003729, 36-004590, 36-004693, 36-004694, 36-004695, 36-004696, 36-004697, 36-004698, 36-004699, 36-004700, 36-004701, 36-004702, 36-004703, 36-004704, 36-004705, 36-004706, 36-004707, 36-004708, 36-004709, 36-004710, 36-004711, 36-004712, 36-004713, 36-004714, 36-004715, 36-004716, 36-004717, 36-004718, 36-004719, 36-004720, 36-004721, 36-004722, 36-004723, 36-004724, 36-004725, 36-004726, 36-004888 36-000058, 36-000060, 36-000063, 36-000064, 36-000065, 36-000072, 36-000176, 36-000182, 36-000204, 36-000206, 36-000207, 36-000458, 36-000786, 36-000821, 36-000938, 36-000983, 36-001888, 36-001961, 36-002110, 36-002129, 36-002142, 36-002240, 36-002554, 36-002643, 36-002646,

Table 4.4-1. Previous Technical Studies Within the 1-Mile Search Buffer

Report No.	Other IDs	Year	Author(s)	Report Title	Affiliation	Resources
						36-002704, 36-002707, 36-003489, 36-004703, 36-004726
SB-01220	NADB-R - 1061220; Voided - 81-12.7A	1981	Bean, Lowell John, Sylvia Brakke Vane, and Jackson Young	The Ivanpah Generating Station Project: Ethnographic (Native American) Resources	Cultural Systems Research Inc.	36-000058, 36-000060, 36-000063, 36-000064, 36-000065, 36-000072, 36-000176, 36-000182, 36-000204, 36-000206, 36-000207, 36-000458, 36-000786, 36-000821, 36-000938, 36-000983, 36-001888, 36-001961, 36-002110, 36-002129, 36-002142, 36-002240, 36-002554, 36-002643, 36-002646, 36-002704, 36-002707, 36-003489, 36-004703, 36-004726
SB-01474	NADB-R - 1061474; Voided - 84-12.2	1984	Smith, Gerald A. and E. Gary Stickel	A Cultural Resources Assessment of The Phelan Road Improvement Project, Ho9155, Baldy Mesa Area, San Bernardino County, California	San Bernardino County Museum Association	
SB-02202	NADB-R - 1062202; Voided - 90-11.6	1990	Mckenna, Jeanette A.	A Phase I Archaeological Investigation of Proposed Water Pipeline Routes and Reservoir/Pumping Locations, In The Baldy Mesa/Phelan Area, San Bernardino County, California	Mckenna et al.	
SB-02476	NADB-R - 1062476; Voided - 91-11.6	1991	Mckenna, Jeanette A.	A Phase I Linear Survey: Cultural Resources Investigations For The Hesperia Improvement District, Hesperia, San Bernardino County, California	Mckenna et al.	
SB-02674	NADB-R - 1062674; Voided - 92-7.5	1992	Singer, Clay A., John E. Atwood, and Barbie S. Laney	Cultural Resources Survey and Impact Assessment For APN 404-281- 36 In The Baldy Mesa Area of San Bernardino County, California	C.A. Singer & Associates	36-004272

Table 4.4-1. Previous Technical Studies Within the 1-Mile Search Buffer

Report No.	Other IDs	Year	Author(s)	Report Title	Affiliation	Resources
SB-02732	NADB-R - 1062732	1992	Parr, Robert E.	An Archaeological Assessment of Tentative Parcel Map #14242 Baldy Mesa, San Bernardino County, California	CSUSB	36-004179
SB-02802	NADB-R - 1062802	1993	Brock, James	Historical Structures Assessment For The Phelan Road Widening Project, Baldy Mesa Road To Los Banos Road, County of San Bernardino, California	Archaeological Advisory Group	
SB-02803	NADB-R - 1062803	1993	Love, Bruce	Main St./I-15 Interchange, Hesperia	CRM Tech	
SB-03020	NADB-R - 1063020	1993	Sturm, Brad, D. Mclean, K. Becker, and J. Rosenthal	(Draft) Adelanto-Lugo Transmission Project Cultural Resources Assessment	Woodward-Clyde	36-002910, 36-004019, 36-004251, 36-004255, 36-004266, 36-004267, 36-004268, 36-004269, 36-004272, 36-004274, 36-004275, 36-004276, 36-004411, 36-006353, 36-006532, 36-006533, 36-007739, 36-007740, 36-007741, 36-007742, 36-007743, 36-007744, 36-007745, 36-007746, 36-007747, 36-007748, 36-007749, 36-007750, 36-007751, 36-007752, 36-007753, 36-007754, 36-007755, 36-007756, 36-007757, 36-007758, 36-007759, 36-007760, 36-007761, 36-007762, 36-007763, 36-004252, 36-004268, 36-004271, 36-004272, 36-007694, 36-007755, 36-007756, 36-008077, 36-008078, 36-008082

Table 4.4-1. Previous Technical Studies Within the 1-Mile Search Buffer

Report No.	Other IDs	Year	Author(s)	Report Title	Affiliation	Resources
SB-03110	NADB-R - 1063110	1996	BROCK, JAMES and CHRISTINE L. D'IORIO	Historic Property Survey and Historic Architectural Evaluation Report For The Widening of Phelan Road From Baldy Mesa Road To State Hwy 395, San Bernardino County, California.	Archaeological Advisory Group	36-004252, 36-004268, 36-004271, 36-004272, 36-007694, 36-007755, 36-007756, 36-008077, 36-008078, 36-008082
SB-04036	NADB-R - 1064036	2004	CERRETO, RICHARD and CHRISTY MALAN	Cultural Resource Assessment For Parcel 3, APN: 3064-591-17, City of Hesperia, San Bernardino County, California.	Analytic Archaeology	36-020263
SB-04281	NADB-R - 1064281	2004	CERRETO, RICHARD, CHRISTY MALAN, and KATHERINE WARD	Cultural Resources Assessment For APN: 3064-481-12, City of Hesperia, San Bernardino County, California.	Analytic Archaeology	
SB-04282	NADB-R - 1064282	2004	Fulton, Phil	Cultural Resources Assessment: Cingular Wireless Facility No. Sb 333-01, Hesperia, San Bernardino County, California.	LSA	
SB-04285	NADB-R - 1064285	2004	Green, Julia K.	Cultural Resources Inventory & Evaluation: Timbisha Shoshone Hotel & Casino, San Bernardino County, California.	ECORP	
SB-04289	NADB-R - 1064289	2003	White, Robert S. and Laura S. White	A Cultural Resources Assessment of the San Bernardino County Special Districts CSA 70 Zone J Casita Ave Water Pipeline Project Near Hesperia, San Bernardino California.	Archaeological Associates	36-004246
SB-04290	NADB-R - 1064290	1997	HAMMOND, STEPHEN and DAVID BRICKER	The Realignment of US Highway 395 & Main St In The City of Hesperia, San Bernardino County, California.	Caltrans	36-004179, 36-004267, 36-004268, 36-007545, 36-007755, 36-007756, 36-008077, 36-008082

Table 4.4-1. Previous Technical Studies Within the 1-Mile Search Buffer

Report No.	Other IDs	Year	Author(s)	Report Title	Affiliation	Resources
SB-04582	NADB-R - 1064582	2005	Duff, Gabrielle and Manuel R. Palacios-Fest	Archaeological and Paleontological Survey of The Ludwig Property, Hesperia, San Bernardino County, California.		
SB-04796	NADB-R - 1064796	2005	Brunzell, David	Cultural Resource Assessment Vista Del Valle City of Victorville San Bernardino County, California		
SB-04927	NADB-R - 1064927	2006	Sander, Jay K.	Cultural Resources Inventory of 147 Acres: Tract 17598, Phelan, San Bernardino County, California.	Chambers Group Inc.	36-004272, 36-012631, 36-012632, 36-012633, 36-012634, 36-012635
SB-05466	NADB-R - 1065466	2007	TANG, BAI, SMALLWOOD, JOSH, DANIEL BALLESTER, and LAURA H. SHAKER	Historical/Archaeological Resources Survey Report: Victor Valley Water District Pipeline Project, City of Victorville, San Bernardino County, California		36-007694
SB-05698	NADB-R - 1065698	2007	Hogan, Michael	Historical/Archaeological Resources Survey Report: US Highway 395 Realignment EIR, Victorville Area, San Bernardino County, California.	CRM Tech	36-004179, 36-004252, 36-004253, 36-004262, 36-004267, 36-004268, 36-004270, 36-004271, 36-004272, 36-004411, 36-004418, 36-006828, 36-007545, 36-007694, 36-008082, 36-010316, 36-012150, 36-012469, 36-013356, 36-013357, 36-013358, 36-013359, 36-013360, 36-013361, 36-013362, 36-013363, 36-013364, 36-013372, 36-013373, 36-013374, 36-013375, 36-013376, 36-013377, 36-013378, 36-013379, 36-013380, 36-013381, 36-013382, 36-013383, 36-013384, 36-013385, 36-013386

Table 4.4-1. Previous Technical Studies Within the 1-Mile Search Buffer

Report No.	Other IDs	Year	Author(s)	Report Title	Affiliation	Resources
SB-05818	NADB-R - 1065818	2007	Budinger, Fred E.	An Archaeological Survey of 10-Acres (APN 3064-601-01) For The Proposed Holiday Inn Hesperia Project To Located Southeast of The Intersection of Main Street and Mesa Linda Street In The City of Hesperia, San Bernardino County, California 92392.	Tetra Tech Inc.	
SB-06164		2007	Sander, Jay	Cultural Resources Inventory of APN 3064- 561-12 Hesperia, San Bernardino County, California	Chambers Group	36-004266
SB-06333	NADB-R - 1066333	2005	Horne, Melinda C.	Cultural Resources Survey For The Mojave Water Agency Water Banking Project		36-000176
SB-06602	NADB-R - 1066602; OHP OTIS Report Nbr - FCC090824Q	2009	Wlodarski, Robert J.	Cultural Resources Record Search and Archaeological Survey Results For The Proposed Royal Street Communications, California, LLC, Site Laee28a (Vacant Lot TMO-Pine Colo) Located At 9980 Lassen Street, Hesperia, San Bernardino County, California 92345.	HEART	
SB-06859	NADB-R - 1066859	2010	Tang, Bai "Tom", Terri Jacquemain, Daniel Ballester, and Harry Quinn	Identification and Evaluation of Historic Properties: Town of Apple Valley and City of Hesperia Wastewater Reclamation Plants and Related Facilities Project, Victor Valley Area, San Bernardino County, California.		
SB-06860	NADB-R - 1066860; Other - SCE	2011	Heidelberg, Kurt and Gabrielle Duff	Archaeological Survey Report For Southern California Edison's Line Extension Project In Victorville, California.	Inland Environmental Associates	36-007545

Table 4.4-1. Previous Technical Studies Within the 1-Mile Search Buffer

Report No.	Other IDs	Year	Author(s)	Report Title	Affiliation	Resources
SB-07156	NADB-R - 1067156	2011	Tang, Bai "Tom", Daniel Ballester, and Nina Gallardo	Historical/Archaeological Resources Survey Report: Water Supply System Improvements Projects, Fiscal Years 2010/2011 – 2014/2015, Victorville Water District, San Bernardino County, California.	CRM Tech	36-000968, 36-002910, 36-006793, 36-007545, 36-007694, 36-009360, 36-10316, 36-012658
SB-07493	NADB-R - 1067493	2013	Dahdul, Miriam, Daniel Ballester, John D. Goodman II, and Nina Gallardo	Historical/Archaeological Resources Survey Report: Westside Terraces Project, Assessor's Parcel No's 3064-441-01 To -03, City of Hesperia, San Bernardino County, California.		
SB-08179	Paleo -	2015	Hogan, Michael	Archaeological/Paleontological Monitoring Program, Tractor Supply Company Retail Facility Project, 12543 Main Street, City of Hesperia, San Bernardino County, CRM TECH Contract No. 2956	CRM TECH	
SB-08205	Paleo -	2015	Mckenna, Jeanette A.	A Phase I Cultural Resources Investigation of The Proposed Summit Leadership Academy, High Desert Campus, City of Hesperia, San Bernardino Co., California	McKenna et al.	36-010288

Source: Appendix E-1.

Previously Recorded Cultural Resources

Two of these previously conducted studies documented nine historic period resources within the Project site, including a trail segment, refuse scatters, and isolated artifacts (Appendix E-1). An additional four prehistoric and 32 historic period resources have been recorded within a mile, as presented in Table 4.4-2. The nearest prehistoric resource (36-012347, an isolated artifact) is approximately 0.46 miles south-southwest of the Project site.

Table 4.4-2. Previously Recorded Cultural Resources within One Mile of the Project Site

Primary No.	Trinomial	Site Description
36-004179	SBR-004179H	Historic period road (Canal Lane)
36-004263	SBR-004263H	Historic period refuse scatter
36-004266	SBR-004266	Minimal prehistoric artifact scatter (3 artifacts) and possible hearth feature
36-004267	SBR-004267H	Historic period road segment
36-004268	SBR-004268H	Historic period road segment
36-004269	SBR-004269H	Historic period road segment
36-004270	SBR-004270H	Patterson Ranch/Warner Ranch Road, historic period road segment
36-004272*	SBR-004272H	Old Spanish Trail, Mojave Trail; Historic period trail
36-007545	SBR-007545H	U.S. Highway 395, historic period highway
36-007694	SBR-007694H	Boulder Transmission lines, historic period transmissions tower
36-007755*	SBR-007755H	Historic period refuse scatter
36-007756	SBR-007756H	Historic period refuse scatter
36-007757	SBR-007757H	Historic period refuse scatter
36-007758	SBR-007758H	Historic period road segment
36-008077	SBR-008077H	Historic period refuse scatter
36-008078	—	Woodruff Homestead, historic period building
36-008082	SBR-008082H	Phelan Road; historic period road and refuse scatter
36-010288	SBR-010288H	John E. Dufton Homestead and William Goatman Property; historic period refuse scatter
36-012149*	SBR-012153H	Historic period refuse scatter
36-012150*	SBR-012154H	Historic period refuse scatter
36-012151*	SBR-012155H	Historic period refuse scatter
36-012339	SBR-012217H	Historic period refuse scatter
36-012340	SBR-012218H	Historic period refuse scatter
36-012341	SBR-012219H	Historic period refuse scatter
36-012342	SBR-012220H	Historic period refuse scatter
36-012343	SBR-012221H	Historic period refuse scatter
36-012344	SBR-012222H	Historic period road segment and refuse scatter
36-012345	SBR-012223H	Historic period road segment and refuse scatter
36-012346	SBR-012224H	Historic period road segment and refuse scatter
36-012347	—	Isolated prehistoric artifact
36-012631	—	Historic period refuse scatter
36-012632	—	Historic period refuse scatter
36-012633	—	Historic period refuse scatter

Table 4.4-2. Previously Recorded Cultural Resources within One Mile of the Project Site

Primary No.	Trinomial	Site Description
36-012634	—	Historic period refuse scatter
36-012635	—	Isolated prehistoric artifact
36-020263	—	Isolated prehistoric artifact
36-020555*	—	Isolated historic period artifact
36-020556*	—	Isolated historic period artifact
36-020557*	—	Isolated historic period artifact
36-020558*	—	Isolated historic period artifact
36-021366	SBR-013725H	Historic period trash scatter
36-021372	SBR-013731H	Historic period trash scatter
36-026211	SBR-016620H	Historic period trash scatter
36-026212	SBR-016621H	Historic period trash scatter
36-026213	SBR-016622H	Historic period trash scatter

Source: Appendix E-1.
Notes: OHP = Office of Historic Preservation.
* Within Project area.

Additional Research

In December 2018, additional research was conducted, including review of historic period aerial photographs and maps for possible connections to significant people and events associated with the Project site. Aerial photographs from 1938, 1968, and 1980 were reviewed.

Archaeological Field Survey for Project Site

On December 12 and 13, 2018, a pedestrian field survey was conducted of the Project site (exclusive of the Off-Site Utilities Alignments, described below) in an effort to identify and document, prior to the beginning of ground-disturbing activities, any cultural resources and thus also to identify any area or areas that might be sensitive for buried cultural resources. The Project area was surveyed in systematic parallel transects spaced by approximately 10 meters (approximately 35 feet). Visibility was excellent at approximately 95% with the surface partially obscured by vegetation. During the pedestrian field survey, a number of the previously documented resources, along with nine previously undocumented resources were identified, as listed below.

- **36-004272/CA-SBR-004272H (Old Spanish Trail/Salt Lake-Santa Fe Trail): A** portion of this 19th century trail's route transects the southwestern portion of the Project area. Its condition and description are consistent with its last site record update.
- **36-007755/CA-SBR-007755H:** This minor early to mid-20th century 45 × 40-foot refuse scatter was documented in the early 1990s. Its condition and description are consistent with its site record.
- **36-012149/CA-SBR-012153H:** This minor early to mid-20th century refuse scatter (30 × 20 feet in area, totaling approximately 20 cans) was originally documented in the early 1990s. Its condition and description are consistent with its site record.
- **36-012150/CA-SBR-012154H:** This early to mid-20th century historic period refuse scatter (55 × 35 feet in area, totaling approximately 100 items comprising cans, glass, and ceramic fragments) was originally documented in the mid-2000s. Its condition and description are consistent with its site record update.

- **36-012151/CA-SBR-012155H:** This early 20th century historic period refuse scatter (45 × 30 feet in area, totaling approximately 200 items consisting of cans, glass, and ceramic fragments) was originally documented in the mid-2000s. Its condition and description are consistent with its site record update.
- **36-020555:** Originally recorded as an isolate (a small glass scatter) in the mid-2000s, this was subsequently designated Locus A after additional artifacts were identified 50 feet to the east on the east side of Oak Hill Road (Old Spanish Trail/Salt Lake-Santa Fe Trail, 36-004272) and documented as Locus B. The refuse scatter dates from the late 19th to mid-20th century, spans 150 × 110 feet and comprises approximately 70 items (cans, glass, and ceramic fragments).
- **36-020557:** Originally recorded as an isolate (two meat cans) in the mid-2000s, this was subsequently designated Locus A after additional artifacts were identified 60 feet to the west, which were designated Locus B. The refuse scatter dates from the early to mid-20th century, spans 105 × 104 feet, and comprises approximately 70 items (cans, glass, and ceramic fragments).

  Two isolated artifacts previously documented within the Project area (36-020556 and 36-020558) were not identified.
- **36-033084/CA-SBR-033084H:** This previously undocumented sparse, minimal refuse scatter (totaling 7 cans) dates to the late 1930s and spans 246 × 87 feet.
- **36-033085/CA-SBR-033085H:** This previously undocumented sparse refuse scatter (totaling approximately 22 items including cans, glass, and ceramic fragments) dates to the 1920s and spans 120 × 65 feet.
- **36-033086/CA-SBR-033086H:** This previously undocumented sparse refuse scatter (totaling approximately 35 items including cans, can fragments, and glass fragments) dates to the 1920s and spans 160 × 80 feet.
- **36-033087/CA-SBR-033087H:** This previously undocumented sparse, minimal refuse scatter (totaling approximately 10 items including cans and can fragments) dates to the 1930s and spans 60 × 20 feet.
- **36-033088/CA-SBR-033088H:** This previously undocumented dense refuse scatter (totaling more than 1,350 items including cans, glass, and ceramic fragments) dates to the early to mid-20th century and spans 240 × 225 feet, straddling Oak Hill Road (a segment of the route of the Old Spanish/Salt Lake-Santa Fe Trail, 36-04272).
- **36-033089/CA-SBR-033089H:** This previously undocumented refuse scatter (totaling approximately 100 items including cans, can fragments, and glass fragments) dates to the early to mid-20th century and spans 170 × 45 feet.
- **36-033090:** These previously undocumented isolated artifacts (glass fragments) date to the early 20th century.
- **36-033091:** These previously undocumented isolated artifacts (food cans) date to the early 20th century.
- **36-033092:** These previously undocumented isolated artifacts (food cans) date to the early 20th century.

Archaeological Field Survey for Off-Site Utilities Alignments

On June 5, 2020, a pedestrian field survey was conducted of the Off-Site Storm Drain Alignment and Off-Site Sewer Alignment and on July 17, 2020, a pedestrian field survey was conducted of the Off-Site Water Alignment (collectively, the Off-Site Storm Drain Alignment, the Off-Site Sewer Alignment, and the Off-Site Water Alignment will herein be referred to as the Off-Site Utilities Alignments). The survey footprint included the entirety of the Off-Site Utilities Alignments with a survey buffer of 8 feet from the centerline of that alignment and generally follows the existing unpaved Yucca Terrace Road, Los Banos Road, and Sultana Street. Surface visibility within Yucca Terrace Road, Los Banos Road, and Sultana Street was unobstructed and provided for 100% visibility. Visibility within the

areas to the north and south of the alignments, within the survey buffer, was hindered by desert grass and vegetation, as well as roadside refuse, and as such visibility along these areas was fair (50%).

These surveys were conducted in an effort to identify and document, prior to the beginning of ground-disturbing activities, any cultural resources and thus also to identify any area or areas that might be sensitive for buried cultural resources. The intensive-level survey methods consisted of an intensive pedestrian survey conducted in parallel transects spaced no more than 2 meters (approximately 6 feet) apart, where feasible, over the entire Off-Site Utilities Alignments. Where transects were not feasible, a mixed approach (opportunistic survey) and reconnaissance survey (visual inspection) were utilized, selectively examining exposed ground surfaces, where possible. Within each transect, the ground surface was examined for prehistoric artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, ceramics, fire-affected rock), soil discoloration that might indicate the presence of cultural midden, soil depressions, features indicative of the current or former presence of structures or buildings (e.g., standing exterior walls, post holes, foundations), and historic artifacts (e.g., metal, glass, ceramics, building materials). Ground disturbances such as burrows, cut banks, and drainages were also visually inspected for exposed subsurface materials. During the pedestrian field survey, no cultural resources associated with the Off-Site Utilities Alignments were identified. Although, the intensive pedestrian survey did identify potential historical resources within the survey buffer, potential resources were observed outside the Project's Off-Site Utilities Alignments footprint and consisted of refuse piles that do not appear to be associated with potentially buried resources.

Native American Coordination

The Project is subject to compliance with AB 52 (California Public Resources Code [PRC], Section 21074), which requires consideration of impacts to "tribal cultural resources" as part of the CEQA process, and requires the City of Hesperia (the CEQA lead agency for the Project) to notify any groups who have requested notification of the Project who are traditionally or culturally affiliated with the geographic area of the Project. On May 22, 2020, the City sent letters to tribal representatives of the Cabazon Band of Mission Indians, Torres Martinez Desert Cahuilla Indians, and San Manuel Band of Mission Indians inviting each tribe to engage in tribal consultation, if desired. All AB 52 notification letters and any responses received are included in Appendix E-3.

Paleontological Setting

San Bernardino County is host to numerous locales of significant paleontological resources. Paleontological resources are the preserved fossilized remains of plants and animals. Fossils and traces of fossils are preserved in sedimentary rock units, particularly fine- to medium-grained marine, lake, and stream deposits such as limestone, siltstone, sandstone, or shale, and in ancient soils (paleosols). They are also found in coarse-grained sediments, such as conglomerates or coarse alluvium. Fossils are rarely preserved in igneous or metamorphic rock units (County of San Bernardino 2007).

More specifically, the City encompasses a wide variety of geological formations that differ in age and fossil-bearing sensitivity. Although the City is situated primarily on surface exposures of Quaternary or younger alluvial fan deposits of Holocene age having low paleontological sensitivity, well-dissected older alluvial fan deposits are also mapped within the City. These deposits have a higher potential to contain fossil resources.

According to the *Technical Background Report in Support of the Cultural Resource Element: City of Hesperia General Plan Update* (City of Hesperia 2010), the Project area is overlain by Holocene age deposits. Late Quaternary (late Holocene, or "modern") alluvium and alluvial fan deposits are generally considered to be too young geologically to contain significant nonrenewable paleontological resources (i.e., fossils), and are thus typically assigned a low

paleontological sensitivity. Additionally, the *Technical Background Report in Support of the Cultural Resource Element: City of Hesperia General Plan Update* (City of Hesperia 2010) determined that the Project has a low paleontological sensitivity.

4.4.2 Relevant Plans, Policies, and Ordinances

Federal

There are no federal plans or policies related to cultural or historical resources that are applicable to the Project.

State

The California Register of Historical Resources

In California, the term "historical resource" includes, but is not limited to, "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (PRC Section 5020.1[j]). In 1992, the California legislature established the California Register of Historical Resources (CRHR) "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Section 5024.1[a]). The criteria for listing resources on the CRHR were expressly developed to be in accordance with previously established criteria developed for listing in the National Register of Historic Places, enumerated below. A resource is considered historically significant if it (i) retains "substantial integrity," and (ii) meets at least one of the following criteria (PRC Section 5024.1[c][1–4]):

(1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

(2) Is associated with the lives of persons important in our past.

(3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

(4) Has yielded, or may be likely to yield, information important in prehistory or history.

In order to understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than 50 years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance (see 14 CCR 4852[d][2]).

The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. Prehistoric resources are those that pre-date written records, while historic resources reflect written records or recorded events of the past. The criteria for the CRHR are nearly identical to those for the National Register of Historic Places, and properties listed or formally designated as eligible for listing in the National Register of Historic Places are automatically listed in the CRHR, as are the state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

California Environmental Quality Act

The following CEQA statutes (PRC Section 21000 et seq.) and CEQA Guidelines (14 CCR 15000 et seq.) are of relevance to the analysis of archaeological, historic, and tribal cultural resources:

- PRC Section 21083.2(g) defines "unique archaeological resource."
- PRC Section 21084.1 and CEQA Guidelines Section 15064.5(a) define "historical resources." In addition, CEQA Guidelines Section 15064.5(b) defines the phrase "substantial adverse change in the significance of an historical resource"; it also defines the circumstances when a project would materially impair the significance of a historical resource.
- PRC Section 21074(a) defines "tribal cultural resources."
- PRC Section 5097.98 and CEQA Guidelines Section 15064.5(e) set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated ceremony.
- PRC Sections 21083.2(b) and 21083.2(c) and CEQA Guidelines Section 15126.4 provide information regarding the mitigation framework for archaeological and historic resources, including examples of preservation-in-place mitigation measures. Preservation in place is the preferred manner of mitigating impacts to significant archaeological sites because it maintains the relationship between artifacts and the archaeological context, and may also help avoid conflict with religious or cultural values of groups associated with an archaeological site.

Under CEQA, a project may have a significant impact on the environment if it may cause "a substantial adverse change in the significance of an historical resource" (PRC Section 21084.1; 14 CCR 15064.5[b]). If a site is listed or eligible for listing in the CRHR, or included in a local register of historic resources, or identified as significant in a historical resources survey (meeting the requirements of PRC Section 5024.1[q]), it is a "historical resource" and is presumed to be historically or culturally significant for the purposes of CEQA (PRC Section 21084.1; 14 CCR 15064.5[a]). The lead agency is not precluded from determining that a resource is a historical resource even if it does not fall within this presumption (PRC Section 21084.1; 14 CCR 15064.5[a]).

A "substantial adverse change in the significance of an historical resource" reflecting a significant impact under CEQA means "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (14 CCR 15064.5[b][1]; PRC Section 5020.1[q]). In turn, the significance of a historical resource is materially impaired when a project does any of the following:

1. Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or
2. Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
3. Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a lead agency for purposes of CEQA (14 CCR 15064.5[b][2]).

Pursuant to these sections, the CEQA inquiry begins with evaluating whether a project site contains any "historical resources," then evaluates whether that project will cause a substantial adverse change in the significance of a historical resource such that the resource's historical significance is materially impaired.

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (PRC Sections 21083.2[a]–[c]).

Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria (PRC Section 21083.2[g]):

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Impacts on non-unique archaeological resources are generally not considered a significant environmental impact (PRC Section 21083.2[a]; 14 CCR 15064.5[c][4]). However, if a non-unique archaeological resource qualifies as a tribal cultural resource (PRC Sections 21074[c] and 21083.2[h]), further consideration of significant impacts is required.

CEQA Guidelines Section 15064.5 assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. As described below, these procedures are detailed in PRC Section 5097.98.

California Health and Safety Code Section 7050.5

California law protects human remains, Native American burials, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains shall occur until the county coroner has examined the remains and determined that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, 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, in the manner provided in Section 5097.98 of the PRC (PRC Section 7050.5[b]). If the coroner determines or has reason to believe the remains are those of a Native American, the coroner must contact NAHC within 24 hours (PRC Section 7050.5[c]). NAHC will notify the "most likely descendant." With the permission of the landowner, the most likely descendant may inspect the site of discovery. The inspection must be completed within 48 hours of notification of the most likely descendant by NAHC. The most likely descendant may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

Assembly Bill 52

The legislature added the requirements regarding tribal cultural resources through AB 52. By including tribal cultural resources early in the CEQA process, the legislature intended to ensure that local and tribal governments, public

agencies, and project proponents would have information available, early in the project planning process, to identify and address potential adverse impacts to tribal cultural resources. By taking this proactive approach, the legislature also intended to reduce the potential for delay and conflicts in the environmental review process (AB 52 Section 1[b][7]).

Section 1 of the bill states the legislature's intent as follows (AB 52 Section 1[b]):

> In recognition of California Native American tribal sovereignty and the unique relationship of California local governments and public agencies with California Native American tribal governments, and respecting the interests and roles of project proponents, it is the intent of the Legislature, in enacting this act, to accomplish all of the following: (1) Recognize that California Native American prehistoric, historic, archaeological, cultural, and sacred places are essential elements in tribal cultural traditions, heritages, and identities. (2) Establish a new category of resources in CEQA called "tribal cultural resources" that considers the tribal cultural values in addition to the scientific and archaeological values when determining impacts and mitigation. (3) Establish examples of mitigation measures for tribal cultural resources that uphold the existing mitigation preference for historical and archaeological resources of preservation in place, if feasible. (4) Recognize that California Native American tribes may have expertise with regard to their tribal history and practices, which concern the tribal cultural resources with which they are traditionally and culturally affiliated. Because CEQA calls for a sufficient degree of analysis, tribal knowledge about the land and tribal cultural resources at issue should be included in environmental assessments for projects that may have a significant impact on those resources. (5) In recognition of their governmental status, establish a meaningful consultation process between California Native American tribal governments and lead agencies, respecting the interests and roles of all California Native American tribes and project proponents, and the level of required confidentiality concerning tribal cultural resources, at the earliest possible point in the CEQA environmental review process.

To accomplish those goals, the legislature added or amended the following sections in the PRC: 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 5097.94 (OPR 2015).

Local

City of Hesperia Code of Ordinances

The following sections of the City of Hesperia Code of Ordinances are relevant to the Project.

Article VIII. Historical Resources Designation and Protection

Section 16.20.270 – Purpose

The purpose of this article is to ensure the protection, enhancement, perpetuation and use of structures and sites of historic architectural, and engineering significance, located within the city, that are of cultural and aesthetic benefit to the community.

Section 16.20.290 – Landmark Designation Review Criteria

When designating a landmark, the city council shall consider the following criteria in making its determination:

A. Historical and Cultural Significance.
   1. The proposed landmark is particularly representative of an historical period, type, style, region, or way of life;
   2. The proposed landmark is an example of a type of building which was once common but is now rare;
   3. The proposed landmark is of greater age than most of its kind;
   4. The proposed landmark was connected with someone who is or was renowned, important, or a local personality;
   5. The proposed landmark is connected with a business or use which was once common but is now rare; or
   6. The architect or builder was significant;
   7. The site is the location of an important historic event or building.

B. Historic Architectural and Engineering Significance.
   1. The construction materials or engineering methods used in the proposed landmark are unusual, significant, or uniquely effective.
   2. The design of the proposed landmark contains details and materials that possess extraordinary or unique aesthetic qualities.

C. Neighborhood and Geographic
   1. The proposed landmark materially benefits the historic character of the neighborhood.
   2. The proposed landmark in its location represents an established and familiar visual feature of the neighborhood, community or city.

City of Hesperia General Plan

The City of Hesperia (City) General Plan contains the following goals and policies that address cultural resources and are applicable to the Project (City of Hesperia 2010):

Conservation Element

Goal CN-5 The City shall establish policies and procedures in compliance with state and Federal laws and regulations to identify and properly protect found historical, cultural and paleontological artifacts and resources.

Policy CN-5.1 Encourage the preservation of historical, paleontological and cultural resources.

Policy CN-5.2 In those areas where surveys and records indicate historical, cultural or paleontological resources may be found, appropriate surveys and record searches shall be undertaken to determine the presence of such resources, if any.

Policy CN-5.3 All historical, paleontological and cultural resources discovered shall be inventoried and evaluated according to CEQA regulations and the California Office of Historic Preservation.

Policy CN-5.4 The City shall coordinate with the Archeological Information Center at the San Bernardino County Museum in reviewing potential records and in preserving such artifacts as may be found.

Policy CN-5.5 Through its CEQA and other environmental procedures, the City shall notify appropriate Native American representatives of possible development and shall comply with all State and Federal requirements concerning the monitoring and preservation of Native American artifacts and places.

4.4.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to cultural resources are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to cultural resources would occur if the Project would:

A. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5.
B. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.
C. Disturb any human remains, including those interred outside of dedicated cemeteries.
D. 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 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).
E. 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 resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.
F. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
G. Result in a cumulatively considerable impact to cultural, tribal cultural, or paleontological resources.

4.4.4 Impact Analysis

Threshold A: Would the Project cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?

Less-than-Significant Impact with Mitigation Incorporated. A cultural resources records search, a review of historic period aerial photographs and maps, and a field survey were conducted for the Project site. Previously-documented historic period cultural resources were identified within the Project site, along with a number of undocumented resources of the same era. The majority of previously documented resources are related to the transportation-related use of the greater Project area, as noted in a previously conducted cultural resources assessment for another project located in the broader Project area (Pollock and Becker 2006):

> This portion of the Mojave Desert has been a transportation corridor for more than a hundred years. During that time, numerous roads have been created, used, and abandoned. Some of these roads

> were important links between communities, such as the Old Spanish Trail, whereas others were shortcuts or other seldom-used routes. During the mid- to late-twentieth century and up to the current day, abandoned road sections were frequently used for illegal refuse dumping, and the sites found during our survey probably resulted from such activities. The early- to mid-twentieth century also saw an increase in the popularity of the desert, as the number of amateur prospectors increased during the Depression and again after World War II. More recently, the desert has been an off-road vehicle use and target shooting area. Typically, these recreational activities occur on weekends, with the participants camping for one or two nights and discarding their camp debris at the campsite. Many of the recent refuse deposits reflect this kind of activity."

As the newly recorded resources are predominantly similar to those previously documented (historic period refuse), the above assessment applies to them as well. With the exception of a fragment of the Old Spanish Trail/Salt Lake-Santa Fe Trail, which was determined to lack integrity and is not a contributing element to the resource, none of the potential historic resources sites within the Project area is associated with any known historical events or important persons. They are typical examples of isolated historic-period refuse deposits with no specific associations and fail to meet the CEQA criteria of "historical resources" or "unique archaeological resources," (Appendix E-1) and their cultural resources value has been exhausted by previous and current documentation. Overall, the potential of the Project to affect previously recorded or currently undocumented historic resources of significance on the Project site is low.

In regard to the Off-Site Utilities Alignments, a cultural resources records search, a review of historic period aerial photographs and maps, and intensive field survey were conducted for the routes of the Off-Site Utilities Alignments. No historic resources associated with these Off-Site Utilities Alignments were identified during these efforts; however, potential historical resources were observed that are in the vicinity of the proposed Off-Site Utilities Alignments. The conceptual plans for these off-site utilities has been reviewed and construction of these utilities is not proposed to intersect these potential historical resources and the Project would not impact these resources; as such, no formal recordation or evaluation of the potential historical resources was conducted.

These potential historic resources are similar to other the resources previously observed, recorded, and evaluated on and near the Project site (i.e., isolated historic-period and modern-era refuse deposits with no specific associations). Because the significance of these potential historic resources has yet been determined, should construction of the Off-Site Utilities Alignments ultimately require equipment and activities to come into close proximity or traverse the locations of the potential historic resources, there would be a potential for construction activities to impact the potential historic resources. As a result, to ensure that impacts to potential historic resources remain less than significant, implementation of MM-CUL-1 and MM-CUL-2 shall be required. With incorporation of MM-CUL-1 and MM-CUL-2, impacts associated with potential historic resources within and adjacent to the Off-Site Utilities Alignments would be less than significant.

Threshold B: Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?

Less-than-Significant Impact With Mitigation Incorporated. A cultural resources record search, a review of historic period aerial photographs and maps, and a field survey were conducted for the Project site and Off-Site Utilities Alignments. The records search included a review of all recorded historic and prehistoric archaeological sites within one mile of the Project (Appendix E-1). Despite the presence of minor prehistoric resources within a mile of the Project site and Off-Site Utilities Alignments, the Project site has been surveyed twice over the course of approximately a decade with no trace of any prehistoric resources identified. In addition, a survey of the Off-Site

Utilities Alignments did not reveal or indicate the presence of any archaeological resources. As a result of these findings, the potential of the Project to affect previously undocumented/unknown significant archaeological resources is low. However, it is impossible to completely rule out the presence of archaeological resources within the Project site. For this reason, the Project site should be treated as potentially sensitive for archaeological resources, and MM-CUL-1 through MM-CUL-3 is required to reduce potential impacts to unanticipated archaeological resources. With incorporation of MM-CUL-1 through MM-CUL-3, impacts associated with archaeological resources would be less than significant.

Threshold C: Would the Project disturb any human remains, including those interred outside of formal cemeteries?

Less-than-Significant Impact with Mitigation Incorporated. A cultural resources records search, a review of historic period aerial photographs and maps, and a field survey were conducted for the Project site. These activities did not provide any indication that human remains could be located within the Project site. However, in the unlikely event that human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98, pursuant to MM-CUL-4. The County Coroner must be notified of the find immediately. If the remains are determined to be Native American, the County Coroner will notify the NAHC, which will determine and notify an MLD. With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD will have the opportunity to offer recommendations for the disposition of the remains. With incorporation of MM-CUL-4, impacts associated with human remains would be less than significant.

Threshold D: 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 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)?

AND

Threshold E: 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 resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less-than-Significant Impact with Mitigation Incorporated. The Project is subject to compliance with AB 52 (PRC Section 21074), which requires consideration of impacts to "tribal cultural resources" as part of the CEQA process, and requires the City of Hesperia, as the CEQA lead agency, to notify any groups who have requested notification of proposed projects within the City and who are traditionally or culturally affiliated with the geographic area of the Project.

In May 2020, the City sent out AB 52 notification letters to three tribal representatives who had requested to be notified of proposed projects within the City. The City has received one response to the AB 52 notification letters from Jessica Mauck, Director of Cultural Resources Management of the San Manuel Band of Mission Indians

(SMBMI), dated June 27, 2020. Ms. Mauck stated that the Project area exists within Serrano ancestral territory and, therefore, is of interest to the SMBMI. However, Ms. Mauck stated that due to the nature and location of the Project, and given the Cultural Resources Management Department's present state of knowledge, the SMBMI does not have any concerns with implementation of the Project. Notwithstanding, because there is always the possibility of unexpected discovery of archaeological resources, Ms. Mauck requested that mitigation measures be implemented during Project construction to reduce potential impacts to tribal cultural resources to a less-than-significant level. The mitigation measures requested by the SMBMI have been incorporated into MM-CUL-3 and MM-CUL-4. All AB 52 notification letters and any responses received are included in Appendix E-3.

The Project site has been thoroughly researched, surveyed, and analyzed to identify the level of potential for archaeological and tribal cultural resources. No archaeological and tribal cultural resources were identified as a result of these efforts. Notwithstanding, MM-CUL-1 through MM-CUL-4 are required to help ensure the integrity of archaeological resources and human remains during ground-disturbing activities. With the incorporation of MM-CUL-1 through MM-CUL-4, impacts associated with tribal cultural resources would be less than significant.

Threshold F: Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less-than-Significant Impact with Mitigation Incorporated. The City encompasses a wide variety of geological formations that differ in age and fossil-bearing sensitivity. The Project site, however, is overlain by Holocene age deposits. Late Quaternary (late Holocene, or "modern") alluvium and alluvial fan deposits are generally considered to be too young geologically to contain significant nonrenewable paleontological resources (i.e., fossils) and are typically assigned a low paleontological sensitivity. Additionally, the *Technical Background Report in Support of the Cultural Resource Element: City of Hesperia General Plan Update* (City of Hesperia 2010) determined that the Project site has a low paleontological sensitivity.

Despite the low potential for paleontological resources to occur on the Project site, it is always possible that intact fossil deposits are present at subsurface levels and could be uncovered during ground-disturbing activities. As such, MM-CUL-5 is required, which would ensure that if paleontological resources (sites, features, or fossils) are exposed during construction activities, all construction work occurring within the vicinity of the find would stop until a qualified paleontologist can evaluate the significance of the find and determine whether or not additional study is warranted. With incorporation of MM-CUL-5, impacts associated with paleontological resources would be less than significant.

Threshold G: Would the Project result in a cumulatively considerable impact to cultural, tribal cultural, or paleontological resources?

Less-than-Significant Impact with Mitigation Incorporated. The geographic scope of the cumulative cultural resources analysis is the region surrounding the Project site. Ongoing development and growth in the broader Project area may result in a cumulatively significant impact to cultural resources due to the continuing disturbance of undeveloped areas, which could potentially contain significant, buried archaeological, paleontological, or tribal cultural resources. However, as discussed above, the individual, Project-level impacts associated with cultural, tribal cultural, and paleontological resources were found to be less than significant with incorporation of mitigation measures (MM-CUL-1 through MM-CUL-5). The Project would be required by law to comply with all applicable federal, state, and local requirements related to historical, archaeological, paleontological, and tribal cultural resources. Other related cumulative projects would similarly be required to comply with all such requirements and regulations, to be consistent with the provisions set forth by CEQA and the CEQA Guidelines, and to implement all feasible mitigation measures should a significant project-related and/or cumulative impact be identified. As such, cumulative impacts would be less than significant with mitigation incorporated.

4.4.5 Mitigation Measures and Level of Significance After Mitigation

Threshold A: Would the Project cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?

The Project would have a **less-than-significant impact** with regard to the substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5 for activities occurring on the Project site. No mitigation is required.

The Project would have a potentially significant impact with regard to historic resources located within and adjacent to the Off-Site Utilities Alignments would be less than significant. With implementation of MM-CUL-1 and MM-CUL-2, impacts associated with potential historic resources within and adjacent to the Off-Site Utilities Alignments would be **less than significant with mitigation incorporated**.

MM-CUL-1 Prior to start of ground-disturbing activities, a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (or an archaeologist working under the direct supervision of the qualified archaeologist) shall be retained by the Project Applicant and shall conduct cultural resources sensitivity training for all construction personnel. Construction personnel shall be informed of the types of archaeological resources that may be encountered, the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains, and safety precautions to be taken when working with archaeological monitors. The construction contractor shall ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance.

MM-CUL-2 If construction of the Off-Site Utilities Alignments requires deviation from the routes and disturbance footprints shown in the conceptual plans for these off-site utilities (domestic water, stormwater drain, sanitary sewer), and thus, results in increased potential for construction equipment and activities to come into close proximity or to traverse the locations of the potential historic resources observed in the vicinity of the Off-Site Utilities Alignments, a historic resources survey shall be conducted by a qualified historic resources expert to determine the significance of these potential resources.

The survey shall entail the taking of detailed notes and photographs of potential resources, including documentation of character defining features, spatial relationships, and overall existing conditions of the resources. The potential historic resources shall be recorded on State of California Department of Parks and Recreation Series 523 Forms (DPR forms), and will be evaluated in consideration of National Register of Historic Places and California Register of Historic Resources designation criteria and integrity requirements. Archival research, as applicable, shall also be conducted to develop the appropriate historic context for the potential historic resources. The findings of this evaluation shall be included in a historic resources report. If the resources are found to be historically significant and/or eligible for listing pursuant to National Register of Historic Places and California Register of Historic Resources designation criteria, and if avoidance of these resources and redesign of the off-site utilities is deemed infeasible, the report shall include detailed procedures to the City and Project Applicant on how to minimize effects to these resources to acceptable levels of significance, and these recommendations must be implemented by the Project Applicant.

This requirement shall be noted on all grading plans, and the construction contractor shall be obligated to comply with the note.

Threshold B: Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?

The Project would result in potentially significant impacts with regard to a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. With incorporation of MM-CUL-1 through MM-CUL-3, impacts associated with archaeological resources would be **less than significant with mitigation incorporated**.

MM-CUL-3 If archaeological resources (sites, features, or artifacts) or tribal cultural resources are exposed during construction activities, all construction work occurring within 100 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether or not additional study is warranted. Additionally, the San Manuel Band of Mission Indians Cultural Resources Department (SMBMI) shall be contacted regarding any pre-contact finds and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment.

Construction activities may continue on other parts of the Project site while evaluation occurs. If the find is determined by the archaeologist to constitute a potentially significant archaeological resource, time allotment sufficient to allow for implementation of avoidance measures shall be made available. In accordance with CEQA Guidelines Section 15064.5(f) and/or California Public Resources Code, Sections 21083.2(b), if the discovery proves significant under the California Environmental Quality Act (CEQA), a treatment and monitoring plan shall be prepared by a qualified archaeologist for the resource(s), in coordination with SMBMI. The drafts of the treatment and monitoring plan shall be provided to SMBMI for review and comment. All subsequent finds shall be subject to the treatment and monitoring plan. The treatment and monitoring plan shall allow for a monitor to be present that represents SMBMI for the remainder of the Project, should SMBMI elect to place a monitor on site.

Treatment may include preservation in place or implementation of archaeological data recovery excavations to remove the resource along with subsequent analysis. Any archaeological material that is not Native American in origin shall be curated at a public, non-profit institution with a research interest in the material. If the find is Native American in origin, the tribe(s) that consider the Project area to be within their ancestral land or traditional use area, including the SMBMI, shall be contacted by the City of Hesperia to coordinate treatment and curation.

Any and all archaeological/cultural documents created as a part of the Project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied by the Project Applicant and City of Hesperia for dissemination to SMBMI. The City of Hesperia and/or Project Applicant shall, in good faith, consult with SMBMI throughout the life of the Project.

This requirement shall be noted on all grading plans, and the construction contractor shall be obligated to comply with the note.

This requirement shall be noted on all grading plans, and the construction contractor shall be obligated to comply with the note.

Threshold C: Would the Project disturb any human remains, including those interred outside of formal cemeteries?

The Project would result in potentially significant impacts associated with the disturbance of human remains, including those interred outside of formal cemeteries. With incorporation of MM-CUL-4, impacts associated with human remains would be **less than significant with mitigation incorporated**.

MM-CUL-4 In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the county coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the county coroner has determined, within 2 working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the county coroner determines that the remains are, or are believed to be, Native American, he or she shall notify the Native American Heritage Commission (NAHC) in Sacramento within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendant of the deceased Native American. The most likely descendant shall complete her/his inspection within 48 hours of being granted access to the site. The designated Native American representative shall then determine, in consultation with the property owner, the proper disposition of the human remains.

This requirement shall be noted on all grading plans, and the construction contractor shall be obligated to comply with the note.

Threshold D: 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 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)?

The Project would result in potentially significant impacts associated with a substantial adverse change in the significance of a tribal cultural resource. With the incorporation of MM-CUL-1 through MM-CUL-4, impacts associated with tribal cultural resources would be **less than significant with mitigation incorporated**.

Threshold E: 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 resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

The Project would result in potentially significant impacts associated with a substantial adverse change in the significance of a tribal cultural resource. With the incorporation of MM-CUL-1 through MM-CUL-4, impacts associated with tribal cultural resources would be **less than significant with mitigation incorporated**.

Threshold F: Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The Project would result in potentially significant impacts associated with the destruction of a unique paleontological resource or site or unique geologic feature. With incorporation of MM-CUL-5, impacts associated with paleontological resources would be **less than significant with mitigation incorporated**.

MM-CUL-5 If paleontological resources (sites, features, or fossils) are exposed during Project construction activities, all construction work occurring within 100 feet of the find shall immediately stop until a qualified paleontologist can evaluate the significance of the find and determine whether or not additional study is warranted. If the discovery proves significant under the California Environmental Quality Act, discovered fossils or samples of such fossils shall be collected and identified by the qualified paleontologist. Significant specimens recovered shall be properly recorded, treated, and donated to the San Bernardino County Museum, Division of Geological Sciences, or other repository with permanent retrievable paleontological storage. A final report shall be prepared and submitted to the City of Hesperia that itemizes any fossils recovered, with maps to accurately record the original location of recovered fossils and evidence that the resources were curated by an established museum repository.

This requirement shall be noted on all grading plans, and the construction contractor shall be obligated to comply with the note.

Threshold G: Would the Project result in a cumulatively considerable impact to cultural, tribal cultural, or paleontological resources?

The Project would result in potentially significant cumulative impacts to cultural, tribal cultural, or paleontological resources. With implementation of MM-CUL-1 through MM-CUL-5, cumulative Project impacts would be **less than significant with mitigation incorporated**.

4.4.6 References Cited

City of Hesperia. 2010. *Technical Background Report in Support of the Cultural Resource Element: City of Hesperia General Plan Update*. March 19, 2010.

County of San Bernardino. 2007. *County of San Bernardino 2007 General Plan*. http://www.sbcounty.gov/Uploads/lus/GeneralPlan/FINALGP.pdf.

Harley, B. 1988. Rev. Juan Caballeria: Historian or Storyteller? Rethinking the 1810 Dumetz Expedition. *San Bernardino County Museum Quarterly.*

OPR (California Governor's Office of Planning and Research). 2015. Discussion Draft Technical Advisory: AB 52 and Tribal Cultural Resources in CEQA. May 2015. https://www.opr.ca.gov/docs/DRAFT_AB_52_Technical_Advisory.pdf.

Pollock, K., and Becker, K. 2016. *Cultural Resources Survey of the Hobbs, Austin, Johnson West Property (APNs 3064-35/-03, 3064-361-0/, 3064-391-0/, and 3064-40/-02), Hesperia, San Bernardino County, California*. Technical Report 05-92, Statistical Research Inc., Redlands, California

4.5 Energy

This section describes the existing energy conditions of the Hesperia Commerce Center II Project (Project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the Project.

In addition to the documents incorporated by reference (see Section 2.7 of Chapter 2 of this Environmental Impact Report [EIR]), the following analysis is based, in part, on the following source:

- *Air Quality Impact Analysis* prepared by Urban Crossroads in July 2020 (Appendix C-1).
- *Energy Impact Analysis Report* prepared by Urban Crossroads in July 2020 (Appendix F)

4.5.1 Existing Conditions

Electricity

According to the U.S. Energy Information Administration (EIA), California used approximately 257,268 gigawatt hours of electricity in 2017 (EIA 2019a). By sector in 2017, commercial uses utilized 46% of the state's electricity, followed by 35% for residential uses, and 19% for industrial uses (EIA 2019a). Electricity usage in California for differing land uses varies substantially by the type of uses in a building, type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building. Due to the state's energy efficiency building standards and efficiency and conservation programs, California's electricity use per capita in the commercial sector is lower than any other state except Hawaii (EIA 2018).

Southern California Edison (SCE) provides electricity to the Project. SCE, a subsidiary of Edison International, serves approximately 180 cities in 11 counties across central and Southern California. According to the California Public Utilities Commission (CPUC), approximately 84 billion kilowatt-hours of electricity were used in SCE's service area in 2017. Demand forecasts anticipate that approximately 75 billion kilowatt-hours of electricity would be used in SCE's service area in 2020 (CPUC 2018).

SCE receives electric power from a variety of sources. According to the 2018 SCE Power Content Label, SCE has a renewable energy at 36% of the overall energy resources, with geothermal resources at 8%, wind power at 13%, large hydroelectric sources at 1%, and solar energy is at 13% (SCE 2018). The California Renewables Portfolio Standard (RPS) Program establishes a goal for California to increase the amount of electricity generated from renewable energy resources to 20% by 2010, and to 33% by 2020. Recent legislation revised the current RPS target for California to obtain 50% of total retail electricity sales from renewable sources by 2030, with interim targets of 40% by 2024, and 45% by 2027 (CPUC 2016).

Natural Gas

According to the CEC, California used approximately 12,571 million therms[1] of natural gas in 2017 (EIA 2019b). In 2017 (the most recent year for which data is available), by sector, industrial uses utilized 37% of the state's natural gas, followed by 32% from electric power, 19% from residential, 11% from commercial, and 1% from transportation uses (CEC 2018a). While the supply of natural gas in the United States and production in the lower 48 states has increased greatly since 2008, California produces little, and imports 90% of its supply of natural gas (EIA 2019b).

[1] One therm is equal to 100,000 BTU or 100 kBTU.

The Southern California Gas Company (SoCalGas) provides the Project with natural gas service. The territory serviced by SoCalGas encompasses approximately 20,000 square miles and more than 500 communities. In the California Energy Demand mid-energy demand scenario, natural gas demand is projected to have an annual growth rate of 0.03% in SoCalGas's service territory. As of 2017, approximately 7.2 billion therms were used in SoCalGas's service area per year. Around the time of Project construction in 2020, natural gas demand is anticipated to be approximately 7.4 billion therms per year in SoCalGas's service area (CEC 2014). The total capacity of natural gas available to SoCalGas in 2016 is estimated to have been 3.9 billion cubic feet per day. In 2020, the total capacity available is also estimated to be 3.9 billion cubic feet per day[2] (California Gas and Electric Utilities 2016). This amount is approximately equivalent to 3.98 billion thousand British thermal units (kBTU) per day or 39.8 million therms per day. Over the course of a year, the available capacity would therefore be 14.5 billion therms per year, which is well above the existing and future anticipated natural gas demand in the area serviced by SoCalGas.

Petroleum

According to the CEC, California used approximately 18.6 billion gallons of petroleum in 2017 (EIA 2019c). This equates to a daily use of approximately 51 million gallons of petroleum. By sector, transportation uses utilize approximately 85.5% of the state's petroleum, followed by 11.1% from industrial, 2.5% from commercial, 0.9% from residential, and 0.01% from electric power uses (EIA 2018). In California, petroleum fuels refined from crude oil are the dominant source of energy for transportation sources. Petroleum usage in California includes petroleum products such as motor gasoline, distillate fuel, liquefied petroleum gases, and jet fuel. Production of petroleum in the United States was 9.7 million barrels per day during April 2015, which was the highest output since April 1971 (CEC 2016).

4.5.2 Relevant Plans, Policies, and Ordinances

Federal

Federal Energy Policy and Conservation Act

In 1975, Congress enacted the Federal Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration is responsible for establishing additional vehicle standards. In 2012, new fuel economy standards for passenger cars and light trucks were approved for model years 2017 through 2021 (77 FR 62624–63200). Fuel economy is determined based on each manufacturer's average fuel economy for the fleet of vehicles available for sale in the United States.

Energy Independence and Security Act of 2007

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law. In addition to setting increased corporate average fuel economy standards for motor vehicles, the EISA includes the following other provisions related to energy efficiency:

- Renewable Fuel Standard (RFS) (Section 202)
- Appliance and Lighting Efficiency Standards (Sections 301–325)
- Building Energy Efficiency (Sections 411–441)

This federal legislation (the RFS) requires ever-increasing levels of renewable fuels to replace petroleum (EPA 2017). The U.S. Environmental Protection Agency is responsible for developing and implementing regulations to ensure that

[2] One cubic foot of natural gas has approximately 1,020 BTUs of natural gas or 1.02 kBTUs of natural gas.

transportation fuel sold in the United States contains a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel producers, and many other stakeholders.

The RFS program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. As required under the act, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the EISA, the RFS program was expanded in several key ways that lay the foundation for achieving significant reductions in greenhouse gas (GHG) emissions from the use of renewable fuels, reducing imported petroleum, and encouraging the development and expansion of the renewable fuels sector in the United States. The updated program (RFS2) includes the following:

- EISA expanded the RFS program to include diesel, in addition to gasoline.
- EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022.
- EISA established new categories of renewable fuel, and set separate volume requirements for each one.
- EISA required the U.S. Environmental Protection Agency to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

Additional provisions of the EISA address energy savings in government and public institutions, research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green" jobs.

State

Warren–Alquist Act

The California Legislature passed the Warren–Alquist Act in 1974, which created the CEC. The legislation also incorporated the following three key provisions designed to address the demand side of the energy equation:

- It directed the CEC to formulate and adopt the nation's first energy conservation standards for both buildings constructed and appliances sold in California.
- The act removed the responsibility of electricity demand forecasting from the utilities, which had a financial interest in high-demand projections, and transferred it to a more impartial CEC.
- The CEC was directed to embark on an ambitious research and development program, with a particular focus on fostering what were characterized as non-conventional energy sources.

Integrated Energy Policy Report (IEPR)

Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002) requires the CEC to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (California Public Resources Code, Section 25301a). The Energy Commission prepares these assessments and associated policy recommendations every two years, with updates in alternate years, as part of the Integrated Energy Policy Report.

The 2019 IEPR was adopted January 31, 2020, and continues to work towards improving electricity, natural gas, and transportation fuel energy use in California. The 2019 IEPR focuses on a variety of topics such as including the

environmental performance of the electricity generation system, landscape-scale planning, the response to the gas leak at the Aliso Canyon natural gas storage facility, transportation fuel supply reliability issues, updates on Southern California electricity reliability, methane leakage, climate adaptation activities for the energy sector, climate and sea level rise scenarios, and the California Energy Demand Forecast (CEC 2019). The 2020 IEPR Update is currently in progress but is not anticipated to be adopted until February 2021.

State of California Energy Action Plan

The CEC and CPUC approved the first State of California Energy Action Plan in 2003. The plan established shared goals and specific actions to ensure the provision of adequate, reliable, and reasonably priced electrical power and natural gas supplies; it also identified cost-effective and environmentally sound energy policies, strategies, and actions for California's consumers and taxpayers. In 2005, the CEC and CPUC adopted a second Energy Action Plan to reflect various policy changes and actions of the prior 2 years.

At the beginning of 2008, the CEC and CPUC determined that it was not necessary or productive to prepare a new energy action plan. This determination was based, in part, on a finding that the state's energy policies have been significantly influenced by the passage of Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (discussed below). Rather than produce a new energy action plan, the CEC and CPUC prepared an "update" that examines the state's ongoing actions in the context of global climate change.

Senate Bill 1078 (2002)

Senate Bill (SB) 1078 established the California RPS Program and required that a retail seller of electricity purchase a specified minimum percentage of electricity generated by eligible renewable energy resources as defined in any given year, culminating in a 20% standard by December 31, 2017. These retail sellers include electrical corporations, community choice aggregators, and electric service providers. The bill relatedly required the CEC to certify eligible renewable energy resources, design and implement an accounting system to verify compliance with the RPS by retail sellers, and allocate and award supplemental energy payments to cover above-market costs of renewable energy.

Senate Bills 107 (2006), X1-2 (2011), 350 (2015), and 100 (2018)

SB 107 (2006) accelerated the RPS established by SB 1078 by requiring that 20% of electricity retail sales be served by renewable energy resources by 2010 (not 2017). Additionally, SB X1-2 (2011) requires all California utilities to generate 33% of their electricity from eligible renewable energy resources by 2020. Specifically, SB X1-2 sets a three-stage compliance period: by December 31, 2013, 20% had to come from renewables; by December 31, 2016, 25% had to come from renewables; and by December 31, 2020, 33% will come from renewables.

SB 350 (2015) requires retail seller and publicly owned utilities to procure 50% of their electricity from eligible renewable energy resources by 2030, with interim goals of 40% by 2024 and 45% by 2027.

SB 100 (2018) increased the standards set forth in SB 350. The bill establishes that 44% of the total electricity sold per year to retail customers in California be secured from qualifying renewable energy sources by December 31, 2024, with that number increasing to 52% by December 31, 2027, and 60% by December 31, 2030. SB 100 states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity to California. This bill requires that the achievement of 100% zero-carbon

electricity resources do not increase the carbon emissions elsewhere in the western grid and that the achievement not be achieved through resource shuffling.

Consequently, utility energy generation from non-renewable resources is expected to be reduced based on implementation of the 60% RPS in 2030. Therefore, any Project's reliance on non-renewable energy sources would also be reduced.

Assembly Bill 1007 (2005)

AB 1007 (2005) required the CEC to prepare a statewide plan to increase the use of alternative fuels in California (State Alternative Fuels Plan). The CEC prepared the plan in partnership with the California Air Resources Board (CARB) and in consultation with other state agencies, plus federal and local agencies. The State Alternative Fuels Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

Assembly Bill 32 (2006) and Senate Bill 32 (2016)

In 2006, the state legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020. In 2016, the Legislature enacted SB 32, which extended the horizon year of the state's codified GHG reduction planning targets from 2020 to 2030, requiring California to reduce its GHG emissions to 40% below 1990 levels by 2030. In accordance with AB 32 and SB 32, CARB prepares scoping plans to guide the development of statewide policies and regulations for the reduction of GHG emissions. Many of the policy and regulatory concepts identified in the scoping plans focused on increasing energy efficiencies, using renewable resources, and reducing the consumption of petroleum-based fuels (such as gasoline and diesel). As such, the state's GHG emissions reduction planning framework creates co-benefits for energy-related resources. Additional information on AB 32 and SB 32 is provided in Section 4.6.2 in Section 4.6, Greenhouse Gas Emissions, of this EIR.

California Building Standards

Part 6 of Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. Part 6 establishes energy efficiency standards for residential and non-residential buildings constructed in California to reduce energy demand and consumption. Part 6 is updated periodically to incorporate and consider new energy efficiency technologies and methodologies.

The 2019 Title 24 standards are the currently applicable building energy efficiency standards, and became effective on January 1, 2020. The 2019 Title 24 Building Energy Efficiency Standards would further reduce energy used and associated GHG emissions compared to prior standards. In general, single-family residences built to the 2019 standards are anticipated to use approximately 7% less energy due to energy efficiency measures than those built to the 2016 standards; once rooftop solar electricity generation is factored in, single-family residences built under the 2019 standards would use approximately 53% less energy than those under the 2016 standards (CEC 2018b). Nonresidential buildings built to the 2019 standards are anticipated to use an estimated 30% less energy than those built to the 2016 standards (CEC 2018b).

State Vehicle Standards

In response to the transportation sector accounting for more than half of California's carbon dioxide emissions, AB 1493 was enacted in 2002. AB 1493 required CARB to set GHG emissions standards for passenger vehicles, light-duty trucks, and other vehicles determined by the state board to be those whose primary use is noncommercial personal transportation in the state. The bill required that CARB set GHG emissions standards for motor vehicles manufactured in 2009 and all subsequent model years. The 2009 through 2012 standards resulted in a reduction in approximately 22% of GHG emissions compared to emissions from the 2002 fleet, and the 2013 through 2016 standards resulted in a reduction of approximately 30%.

In 2012, CARB approved a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot, and global-warming gases with requirements for greater numbers of zero-emissions vehicles into a single package of standards called Advanced Clean Cars. By 2025, when the rules would be fully implemented, new automobiles would emit 34% fewer global-warming gases and 75% fewer smog-forming emissions (CARB 2011).

Although the focus of the state's vehicle standards is on the reduction of air pollutants and GHG emissions, one co-benefit of implementation of these standards is a reduced demand for petroleum-based fuels.

Sustainable Communities Strategy

The Sustainable Communities and Climate Protection Act of 2008, or SB 375, coordinates land use planning, regional transportation plans, and funding priorities to help California meet its GHG emissions reduction mandates. As codified in California Government Code Section 65080, SB 375 requires metropolitan planning organizations (e.g., Southern California Association of Governments) to include a Sustainable Communities Strategy in their regional transportation plan. The main focus of the Sustainable Communities Strategy is to plan for growth in a fashion that will ultimately reduce GHG emissions, but the strategy is also part of a bigger effort to address other development issues, including transit and vehicle miles traveled (VMT), which influence the consumption of petroleum-based fuels.

General Plan

Policies pertaining to reducing GHGs are addressed in the Conservation Element of the general plan (City of Hesperia 2010). The following policies from the Conservation Element are applicable to the Project:

Goal CN-1 Conserve water resources within the Upper Mojave River Groundwater Basin.

- **Policy CN-1.1** Promote the use of desert vegetation with low water usage and drought tolerant materials in landscaped areas.
- **Policy CN-1.6** Encourage the use of low-water consumption fixtures in homes and businesses.

Goal CN-2 Establish building and development standards to maximize the reclamation of water resources.

- **Policy CN-2.2** Encourage the use of reclaimed water for irrigation and other non-potable uses.

Goal CN-6 Provide programs and incentives to encourage residents, businesses and developers to reduce consumption and efficiently use energy resources.

- **Policy CN-6.2** Encourage the use of green building standards and Leadership in Energy and Environmental Design (LEED) or similar programs in both private and public projects.

Goal CN-7 Develop, promote and implement policies to reduce and limit GHG emissions.

Policy CN-7.4 Promote the utilization of alternative energy resources such as wind and solar in new development.

Policy CN-7.5 Promote the utilization of environmentally sensitive construction materials to limit impacts on the ozone, global climate change and mineral resources.

Policy CN-7.7 Promote energy conservation through site layout, building design, natural light and efficient mechanical and electrical products in development.

Policy CN-7.8 Continue the existing recycling program and utilization of the material recovery facility program while exploring additional methods of reducing waste.

Policy CN-7.9 Promote sustainable principles in development that conserves such natural resources as air quality and energy resources.

4.5.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to energy are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to energy would occur if the Project would:

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.
C. Result in cumulatively considerable energy impacts.

Methodology

On October 17, 2017, the SCAQMD, in conjunction with the California Air Pollution Control Officers Association and other California air districts, released the latest version of the CalEEMod Version 2016.3.2. The purpose of this model is to calculate construction-source and operational-source criteria pollutant (VOCs, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$) and GHG emissions from direct and indirect sources as well as energy usage (CAPCOA 2017). Accordingly, the latest version of CalEEMod has been used to determine the Project's anticipated transportation and facility energy demands. On August 19, 2019, the EPA approved the 2017 version of the EMissions FACtor model (EMFAC) web database for use in State Implementation Plan and transportation conformity analyses. EMFAC2017 is a mathematical model that was developed to calculate emission rates, fuel consumption, VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources (CARB 2018a). This analysis utilizes the different fuel types for each vehicle class from the annual EMFAC2017 emission inventory in order to derive the average vehicle fuel economy which is then used to determine the estimated annual fuel consumption associated with vehicle usage during Project construction and operational activities. For purposes of this analysis, the 2021 analysis year was utilized to determine the average vehicle fuel economy used throughout the duration of the Project.

Construction

Construction of the Project would result in energy consumption primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. All details for

construction criteria air pollutants discussed in the Methodology subsection in Section 4.2.3 of Section 4.2, Air Quality, are also applicable for the estimation of construction-related energy consumption. As such, see Section 4.2.3 for a discussion of construction calculation methodology and assumptions used in the energy analysis. In addition to those assumptions discussed in Section 4.2.3, the following methodology was used to estimate construction electricity and petroleum consumption.

Electricity

Electricity consumption during construction would result from use of electrically powered construction equipment and use of temporary on-site buildings such as office trailers. Based on the *2017 National Construction Estimator*, the typical power cost per 1,000 sf of construction per month is estimated to be $2.32. For the Project development, the Project plans to develop approximately 2,361,648 sf of High-Cube Fulfillment Center use, 1,383,781 sf of General Light Industrial use, 1,631 parking spaces, 593,998 sf of landscaped area, and 3,493,865 sf of other asphalt surfaces[3] over the course of 10 months (Pray 2017). Based on Table 4.5-1, the total power cost of the on-site electricity usage during the construction of the Project is estimated to be approximately $196,868.05.

Table 4-5.1. Construction Power Cost

Land Use	Power Cost (per 1,000 square feet of construction per month)	Size (1,000 square feet)	Construction Duration (months)	Project Construction Power Cost
General Light Industrial	$2.32	1,383.781	10	$32,103.73
High-Cube Fulfillment Center Warehouse	$2.32	2,361.648	10	$54,790.22
Landscape	$2.32	593.998	10	$13,780.76
Parking	$2.32	652.400	10	$15,135.68
Other Asphalt Surfaces	$2.32	3,493.865	10	$81,057.66
			Total	**$196,868.05**

Source: Appendix F.

The SCE's general service rate schedule were used to determine the Project's electrical usage. As of January 1, 2020, SCE's general service rate is $0.08 per kilowatt hours (kWh) of electricity for industrial services (SCE 2020). Although no physical structure is anticipated, electricity usage related to construction of the Project was based on the calculated construction power cost (identified in Table 4.5-1) and the SCE cost per kWh. This approach was taken in order to conservatively identify electricity usage from construction activities.

Petroleum

Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction. The aggregate fuel consumption rate for all equipment is estimated at 18.5 horsepower hour per gallon (hp-hr-gal.), obtained from CARB 2018 Emissions Factors Tables and cited fuel consumption rate factors presented in Table D-24 of the Moyer guidelines (CARB 2018b). For the purposes of this analysis, the calculations are based on all

[3] The total Project site area is 8,485,692 sf (194.80 acres). For purposes of analysis, the remaining 3,493,865 sf (Total Area – (Building Area + Parking Area + Landscaped Area) will be modeled as Other Asphalt Surfaces. These surfaces are defined as an asphalt area not used as a parking lot.

construction equipment being diesel-powered, which is standard practice consistent with industry standards. Diesel fuel would be supplied by existing commercial fuel providers serving the City of Hesperia and region.

With respect to estimated VMT for the Project, the construction worker trips would generate an estimated 5,827,374 VMT and vendor trucks trips would generate an estimated 864,432 VMT along area roadways for the Project (Appendix F). Based on CalEEMod methodology, it is assumed that 50% of all worker trips are from light-duty-auto vehicles (LDA), 25% are from light-duty-trucks (LDT1),[4] and 25% are from light-duty-trucks (LDT2).[5] For vendor trucks, it is assumed that 50% of all vendor trips are from medium-heavy duty trucks (MHDT) and 50% are from heavy-heavy duty trucks (HHDT). Data regarding Project related construction worker trips were based on CalEEMod defaults.

Vehicle fuel efficiencies for LDA, LDT1, LDT2, MHDTs and HHDTs were estimated using information generated within EMFAC2017. EMFAC2017 was run for the LDA, LDT1, LDT2, MHDTs and HHDTs vehicle class within the California sub-area for the 2021 calendar year. Data from EMFAC2017 is shown in Appendix F.

Operation

Energy consumption in support of or related to Project operations would include transportation energy demands (energy consumed by on-road vehicles accessing the Project site) and facilities energy demands (energy consumed by building operations and site maintenance activities).

Electricity

The Project's operational phase would require electricity for multiple purposes including, but not limited to, building heating and cooling, lighting, and appliances, including refrigeration, electronics, equipment, and machinery. Energy would also be consumed during operation of the Project related to water usage, solid waste disposal, and electric vehicle trips. CalEEMod version 2016.3.2 was used to analyze electrical usage during operation; the default value for electricity consumption for the proposed warehouse land uses was applied for the Project (CAPCOA 2017).

Natural gas

Natural gas consumption during operation would be required for various purposes, including, but not limited to, building heating and cooling. Natural gas would be supplied to the Project by SoCalGas. Default natural gas generation rates in CalEEMod for the proposed land use and climate zone were used.

Petroleum

Energy that would be consumed by Project-generated traffic is a function of total VMT and estimated vehicle fuel economies for the vehicles accessing the Project site. With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's Air Quality Impact Analysis (Appendix C-1), the Project would generate an estimated 19,474,148, 1,314,803, 6,360,635, 4,229,963, 8,725,411, 4,969,122, and 18,966,447 annual VMT along area roadways for all LDAs, LDT1s, LDT2s, MDVs, LHDT1, MHDTs, and HHDTs, respectively. In total, the Project is anticipated to generate 64,040,529 VMT at final buildout (Appendix F). The

[4] Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

[5] Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

average vehicle fuel economy for each vehicle class are 31.55, 26.54, 24.56, 19.77, 13.88, 8.47 and 6.98 miles per gallon (mpg) for LDAs, LDT1s, LDT2s, MDVs, LHDT1, MHDTs and HHDTs respectively.

4.5.4 Impacts Analysis

Threshold A: Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?

Less-than-Significant Impact. The Project would consume energy resources during construction and operation and would intensify development on the Project site.

Electricity

Construction Energy Usage

Temporary electric power for as-necessary lighting and electronic equipment (e.g., computers inside temporary construction trailers, HVAC) would be provided by SCE. The SCE's general service rate schedule was used to determine the Project's electrical usage. As of January 1, 2020, SCE's general service rate is $0.08 per kWh of electricity for industrial services (SCE 2020). Though no physical structure is anticipated, electricity usage related to construction of the Project was based on the calculated construction power cost (identified in Table 4.5-1) and the SCE cost per kWh. This approach was taken in order to conservatively identify electricity usage from construction activities. Table 4.5-2 identifies the total electricity usage from on-site Project construction.

Table 4.5-2. Construction Electricity Usage

Land Use	Cost per kWh	Project Construction Electricity Usage (kWh)
General Light Industrial	$0.08	401,824
High-Cube Fulfillment Center Warehouse	$0.08	685,778
Landscape	$0.08	172,486
Parking	$0.08	189,445
Other Asphalt Surfaces	$0.08	1,014,552
	Total (kWh)	**2,464,085**

Source: Appendix F.
Note: kWh = kilowatt hour

As shown in Table 4.5-2, Project construction related activities are estimated to be approximately 2,464,085 kWh. Project construction would represent a "single-event" electricity demand and would not require on-going or permanent commitment of electricity resources for this purpose. Therefore impacts would be less than significant

Operational Energy Usage

As shown in Table 4.5-3 the Project is estimated to have a total electrical demand of 19,847,230 kilowatt-hours per year. The Project would be built in accordance with the current Title 24 standards at the time of construction and CALGreen standards.

Table 4.5-3. Project Annual Operational Electricity Demand Summary

Electricity Demand	kWh/year
General Light Industrial	14,045,400
High-Cube Fulfillment Center Warehouse	5,573,490
Landscape	0
Parking	228,340
Other Asphalt Surfaces	0
Total Project Electricity Demand	**19,847,230**

Source: Appendix F.
Note: kWh = kilowatt hour

The Project proposes conventional industrial uses reflecting contemporary energy efficient/energy conserving designs and operational programs. Uses proposed by the Project are not inherently energy intensive, and the Project energy demands in total would be comparable to other projects of similar scale and configuration. Additionally, the Project would be required to comply with the applicable Title 24 standards which would further ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary and impacts would be less than significant.

Natural Gas

Construction Energy Usage

Natural gas is not anticipated to be required during construction of the Project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed under the subsection "Petroleum," below. Any minor amounts of natural gas that may be consumed as a result of Project construction would be temporary and negligible, and would not have an adverse effect; therefore, impacts would be less than significant.

Operational Energy Usage

Natural gas consumption during operation would be required for various purposes, including, but not limited to, building heating and cooling. SoCalGas confirmed availability of natural gas supply in the Project vicinity to serve the Project. Default natural gas generation rates in CalEEMod for the proposed land use and climate zone were used. Table 4.5-4 presents the annual operational natural gas demand.

Table 4.5-4. Project Annual Operational Natural Gas Demand Summary

Electricity Demand	kBTU/year
General Light Industrial	44,959,000
High-Cube Fulfillment Center Warehouse	4,794,150
Landscape	0
Parking	0
Other Asphalt Surfaces	0
Total Project Electricity Demand	**49,753,150**

Source: Appendix F.
Note: kBTU = kilo-British Thermal Units

As shown in Table 4.5-4 the Project is estimated to have a total electrical demand of 49,753,150 kBTU per year. The Project is subject to statewide mandatory energy requirements as outlined in Title 24, Part 6, of the California Code of Regulations. Prior to Project approval, the applicant would ensure that the Project would meet Title 24 requirements applicable at that time, as required by state regulations through their plan review process. Thus, the natural gas consumption of the Project would not be considered inefficient or wasteful, and impacts would be less than significant.

Petroleum

Construction Energy Usage

Petroleum would be consumed throughout construction of the Project. Fuel consumed by construction equipment would be the primary energy resource expended over the course of construction, and VMT associated with the transportation of construction materials and construction worker commutes would also result in petroleum consumption. Heavy-duty construction equipment associated with construction activities and haul trucks involved in relocating dirt around the Project site are assumed to use diesel fuel. Construction workers would travel to and from the Project site throughout the duration of construction. It is assumed that construction workers would travel to and from the Project site in gasoline-powered vehicles.

Heavy-duty construction equipment of various types would be used during Project construction. CalEEMod was used to estimate construction equipment usage; results are included in Appendix F of this EIR. The estimated diesel fuel usage from construction equipment, and vendor trucks, as well as estimated gasoline fuel usage from worker vehicles is shown in Table 4.5-5.

Table 4.5-5. Construction Petroleum Demand

	Off-road Equipment (diesel)	Vendor Trucks (diesel)	Worker Vehicles (gasoline)
Project	*Gallons*		
Site Preparation	3,805	0	199
Grading	18,671	0	626
Building Construction	48,403	112,972	167,230
Paving	11,461	0	1,250
Architectural Coating	2,429	0	37,260
Total	**84,769**	**112,972**	**206,565**

Source: Appendix F.

In summary, construction of the Project is conservatively anticipated to consume 206,565 gallons of gasoline and 197,741 gallons of diesel. Project construction would represent a "single-event" petroleum demand and would not require on-going or permanent commitment of petroleum resources for this purpose. Therefore impacts would be less than significant

Operational Energy Usage

During operations, the majority of fuel consumption resulting from the Project would involve the use of motor vehicles traveling to and from the Project site, as well as fuels used for alternative modes of transportation that may be used by employees of the Project.

Petroleum fuel consumption associated with motor vehicles traveling to and from the Project site is a function of the VMT as a result of Project operation. The annual VMT attributable to the Project is expected to be 64,040,529 VMT (Appendix F). Fuel estimates for the Project are provided in Table 4.5-6.

Table 4.5-6. Total Project-generated Transportation Annual Fuel Demand

Vehicle Type	Annual Vehicle Miles Traveled	Estimated Annual Fuel Consumption (gallons)
Light Duty Automobile	19,474,148	617,195
Light-Duty Truck 1	1,314,803	49,532
Light-Duty Truck 2	6,360,635	259,005
Medium Duty Truck	4,229,963	213,909
Light-Heavy-Duty Truck	8,725,411	628,826
Medium-Heavy Duty Truck	4,969,122	586,976
Heavy-Heavy Duty Truck	18,966,447	2,717,019
Total	**64,040,529**	**5,072,463**

Source: Appendix F.
Note: Vehicles under the Light-Duty Truck 1 category have a gross vehicle weight rating of less than 6,000 pounds and equivalent test weight of less than or equal to 3,750 lbs. Vehicles under the Light-Duty Truck 2 category have a gross vehicle weight rating of less than 6,000 pounds and equivalent test weight between 3,751 pounds and 5,750 pounds.

As summarized on Table 4.5-6 the Project would result in 64,040,529 annual VMT and an estimated annual fuel demand of 5,072,463 gallons of fuel. Fuel would be provided by current and future commercial vendors. Trip generation and VMT generated by the Project are consistent with other industrial uses of similar scale and configuration, as reflected in the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Ed., 2017) and CalEEMod. That is, the Project does not propose uses or operations that would inherently result in excessive and wasteful vehicle trips and VMT, nor associated excess and wasteful vehicle energy consumption.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands. The Project would implement sidewalks, facilitating and encouraging pedestrian access. In compliance with the California Green Building Standards Code, the Project would promote the use of bicycles as an alternative mean of transportation by providing short-term and/or long-term bicycle parking accommodations. Facilitating pedestrian and bicycle access for employees would reduce VMT and associated energy consumption. As supported by the preceding discussions, Project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary and impacts would be less than significant.

Threshold B: Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less-than-Significant Impact. The Project would be subject to and would comply with, at a minimum, the California Building Energy Efficiency Standards (24 CCR Part 6). Part 6 of Title 24 establishes energy efficiency standards for non-residential buildings constructed in California in order to reduce energy demand and consumption. As such, the Project would comply with the California code requirements for energy efficiency.

Part 11 of Title 24 sets forth voluntary and mandatory energy measures that are applicable to the Project under CALGreen. CALGreen institutes mandatory minimum environmental performance standards for all ground-up, new

construction of commercial, low-rise residential, high-rise residential, state-owned buildings, schools, and hospitals, as well as certain residential and non-residential additions and alterations. Additionally, energy consumed by the Project's operation is calculated to be comparable to energy consumed by other industrial uses of similar scale and intensity that are constructed and operating in California. On this basis, the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. This impact would be less than significant.

Threshold C: Would the Project result in a cumulatively considerable energy impact?

Less-than-Significant Impact. Cumulative projects that could exacerbate the Project's impacts include any projects that could result in wasteful, inefficient, or unnecessary use of energy. However, the Project would not result in wasteful, inefficient, or unnecessary use of energy in part due to the short-term and temporary nature of the construction period. Similarly, operation of the Project would not result in a wasteful, inefficient or unnecessary use of energy or conflict with an applicable plan. Furthermore, the Project would include Project design features discussed in Section 4.6.3 which include reductions in energy demand. Therefore, the Project would have a less-than-significant impact with regards to cumulative energy impacts.

4.5.5 Mitigation Measures and Level of Significance After Mitigation

Threshold A: Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?

The Project would have a **less-than-significant impact** with regard to the wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation. No mitigation is required.

Threshold B: Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency and impacts would be **less than significant**. No mitigation is required.

Threshold C: Would the Project result in a cumulatively considerable energy impact?

The Project would have a **less-than-significant impact** with regards to cumulative energy impacts. No mitigation is required.

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4.6 Greenhouse Gas Emissions

This section describes the existing greenhouse gas (GHG) conditions of the Hesperia Commerce Center II Project (Project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the Project.

In addition to the documents incorporated by reference (see Section 2.7 of Chapter 2 of this Environmental Impact Report [EIR]), the following analysis is based, in part, on the following sources:

- *Greenhouse Gas Analysis Report* prepared by Urban Crossroads in July 2020 (Appendix G)
- *Traffic Impact Analysis* prepared by Urban Crossroads in June 2020 (Appendix K-1)

4.6.1 Existing Conditions

Climate Change Overview

Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind patterns, lasting for an extended period of time (decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system. Many factors, both natural and human, can cause changes in Earth's energy balance, including variations in the sun's energy reaching Earth, changes in the reflectivity of Earth's atmosphere and surface, and changes in the greenhouse effect, which affects the amount of heat retained by Earth's atmosphere (EPA 2017a).

The greenhouse effect is the trapping and build-up of heat in the atmosphere (troposphere) near the Earth's surface. The greenhouse effect traps heat in the troposphere through a threefold process as follows: short-wave radiation emitted by the Sun is absorbed by the Earth, the Earth emits a portion of this energy in the form of long-wave radiation, and GHGs in the upper atmosphere absorb this long-wave radiation and emit it into space and toward the Earth. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature and creates a pleasant, livable environment on the Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise.

The scientific record of the Earth's climate shows that the climate system varies naturally over a wide range of time scales and that, in general, climate changes prior to the Industrial Revolution in the 1700s can be explained by natural causes, such as changes in solar energy, volcanic eruptions, and natural changes in GHG concentrations. Recent climate changes, in particular the warming observed over the past century, however, cannot be explained by natural causes alone. Rather, it is extremely likely that human activities have been the dominant cause of that warming since the mid-twentieth century and is the most significant driver of observed climate change (IPCC 2013; EPA 2017a). Human influence on the climate system is evident from the increasing GHG concentrations in the atmosphere, positive radiative forcing, observed warming, and improved understanding of the climate system (IPCC 2013). The atmospheric concentrations of GHGs have increased to levels unprecedented in the last 800,000 years, primarily from fossil fuel emissions and secondarily from emissions associated with land use changes (IPCC 2013). Continued emissions of GHGs will cause further warming and changes in all components of the climate system.

Greenhouse Gases

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code Section 38505(g), for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3) (see also 14 CCR 15364.5).[1] Some GHGs, such as CO_2, CH_4, and N_2O, are emitted into the atmosphere through natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Manufactured GHGs, which have a much greater heat-absorption potential than CO_2, include fluorinated gases, such as HFCs, PFCs, and SF_6, which are associated with certain industrial products and processes. The following paragraphs provide a summary of the most common GHGs and their sources.[2]

Carbon Dioxide. CO_2 is a naturally occurring gas and a by-product of human activities and is the principal anthropogenic GHG that affects the Earth's radiative balance. Natural sources of CO_2 include respiration of bacteria, plants, animals, and fungus; evaporation from oceans; volcanic out-gassing; and decomposition of dead organic matter. Human activities that generate CO_2 are from the combustion of fuels such as coal, oil, natural gas, and wood and changes in land use.

Methane. CH_4 is produced through both natural and human activities. CH_4 is a flammable gas and is the main component of natural gas. Methane is produced through anaerobic (without oxygen) decomposition of waste in landfills, flooded rice fields, animal digestion, decomposition of animal wastes, production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion.

Nitrous Oxide. N_2O is produced through natural and human activities, mainly through agricultural activities and natural biological processes, although fuel burning and other processes also create N_2O. Sources of N_2O include soil cultivation practices (microbial processes in soil and water), especially the use of commercial and organic fertilizers, manure management, industrial processes (such as in nitric acid production, nylon production, and fossil-fuel-fired power plants), vehicle emissions, and using N_2O as a propellant (such as in rockets, racecars, and aerosol sprays).

Fluorinated Gases. Fluorinated gases (also referred to as F-gases) are synthetic powerful GHGs emitted from many industrial processes. Fluorinated gases are commonly used as substitutes for stratospheric ozone-depleting substances (e.g., CFCs, hydrochlorofluorocarbons [HCFCs], and halons). The most prevalent fluorinated gases include the following:

- **Hydrofluorocarbons:** HFCs are compounds containing only hydrogen, fluorine, and carbon atoms. HFCs are synthetic chemicals used as alternatives to ozone-depleting substances in serving many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are used in manufacturing.
- **Perfluorocarbons:** PFCs are a group of human-made chemicals composed of carbon and fluorine only. These chemicals were introduced as alternatives, with HFCs, to the ozone depleting substances. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Since PFCs have stable

[1] Climate forcing substances include GHGs and other substances such as black carbon and aerosols. This discussion focuses on the seven GHGs identified in the California Health and Safety Code Section 38505, because impacts associated with other climate forcing substances are not evaluated herein.

[2] The descriptions of GHGs are summarized from the Intergovernmental Panel on Climate Change's Second Assessment Report and Fourth Assessment Report (IPCC 1995, 2007), the California Air Resources Board's Glossary of Terms Used in GHG Inventories (CARB 2018), and the U.S. Environmental Protection Agency's Glossary of Climate Change Terms (EPA 2016).

molecular structures and do not break down through the chemical processes in the lower atmosphere, these chemicals have long lifetimes, ranging between 10,000 and 50,000 years.

- **Sulfur Hexafluoride:** SF_6 is a colorless gas soluble in alcohol and ether and slightly soluble in water. SF_6 is used for insulation in electric power transmission and distribution equipment, semiconductor manufacturing, the magnesium industry, and as a tracer gas for leak detection.
- **Nitrogen Trifluoride:** NF_3 is used in the manufacture of a variety of electronics, including semiconductors and flat panel displays.

Chlorofluorocarbons. CFCs are synthetic chemicals that have been used as cleaning solvents, refrigerants, and aerosol propellants. CFCs are chemically unreactive in the lower atmosphere (troposphere) and the production of CFCs was prohibited in 1987 due to the chemical destruction of stratospheric ozone (O_3).

Hydrochlorofluorocarbons. HCFCs are a large group of compounds, whose structure is very close to that of CFCs—containing hydrogen, fluorine, chlorine, and carbon atoms—but including one or more hydrogen atoms. Like HFCs, HCFCs are used in refrigerants and propellants. HCFCs were also used in place of CFCs for some applications; however, their use in general is being phased out.

Black Carbon. Black carbon is a component of fine particulate matter, which has been identified as a leading environmental risk factor for premature death. It is produced from the incomplete combustion of fossil fuels and biomass burning, particularly from older diesel engines and forest fires. Black carbon warms the atmosphere by absorbing solar radiation, influences cloud formation, and darkens the surface of snow and ice, which accelerates heat absorption and melting. Black carbon is a short-lived species that varies spatially, which makes it difficult to quantify the global warming potential. Diesel particulate matter emissions are a major source of black carbon and are toxic air contaminants that have been regulated and controlled in California for several decades to protect public health. In relation to declining diesel particulate matter from the California Air Resources Board's (CARB's) regulations pertaining to diesel engines, diesel fuels, and burning activities, CARB estimates that annual black carbon emissions in California have reduced by 70% between 1990 and 2010, with 95% control expected by 2020 (CARB 2014).

Water Vapor. The primary source of water vapor is evaporation from the ocean, with additional vapor generated by sublimation (change from solid to gas) from ice and snow, evaporation from other water bodies, and transpiration from plant leaves. Water vapor is the most important, abundant, and variable GHG in the atmosphere and maintains a climate necessary for life.

Ozone. Tropospheric O_3, which is created by photochemical reactions involving gases from both natural sources and human activities, acts as a GHG. Stratospheric O_3, which is created by the interaction between solar ultraviolet radiation and molecular oxygen (O_2), plays a decisive role in the stratospheric radiative balance. Depletion of stratospheric O_3, due to chemical reactions that may be enhanced by climate change, results in an increased ground-level flux of ultraviolet-B radiation.

Aerosols. Aerosols are suspensions of particulate matter in a gas emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light.

Global Warming Potential

Gases in the atmosphere can contribute to climate change both directly and indirectly. Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the Earth (e.g., affect cloud formation or albedo) (EPA 2020). The Intergovernmental Panel on Climate Change (IPCC) developed the global warming potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of a GHG is defined as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram of a trace substance relative to that of 1 kilogram of a reference gas (IPCC 2014). The reference gas used is CO_2; therefore, GWP-weighted emissions are measured in metric tons of CO_2 equivalent (MT CO_2e).

The current version of the California Emissions Estimator Model (CalEEMod) (Version 2016.3.2) assumes that the GWP for CH_4 is 25 (so emissions of 1 MT of CH_4 are equivalent to emissions of 25 MT of CO_2), and the GWP for N_2O is 298, based on the IPCC's Fourth Assessment Report (IPCC 2007). The GWP values identified in CalEEMod were applied to the Project.

Greenhouse Gas Inventories

Per the U.S. Environmental Protection Agency (EPA) Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2018 (EPA 2020), total United States GHG emissions were approximately 6,676.6 million metric tons (MMT) CO_2e in 2018 (EPA 2020). The primary GHG emitted by human activities in the United States was CO_2, which represented approximately 81.3% of total GHG emissions (5,428.1 MMT CO_2e). The largest source of CO_2, and of overall GHG emissions, was fossil-fuel combustion, which accounted for approximately 92.8% of CO_2 emissions in 2018 (5,031.8 MMT CO_2e). Relative to 1990, gross United States GHG emissions in 2018 are higher by 3.7%, down from a high of 15.2% above 1990 levels in 2007. GHG emissions decreased from 2017 to 2018 by 2.9% (188.4 MMT CO_2e) and overall, net emissions in 2018 were 10.2% below 2005 levels (EPA 2020).

According to California's 2000–2017 GHG emissions inventory (2019 edition), California emitted 424 MMT CO_2e in 2017, including emissions resulting from out-of-state electrical generation (CARB 2019). The sources of GHG emissions in California include transportation, industry, electric power production from both in-state and out-of-state sources, residential and commercial activities, agriculture, high GWP substances, and recycling and waste. The California GHG emission source categories and their relative contributions in 2017 are presented in Table 4.6-1.

Table 4.6-1. Greenhouse Gas Emissions in California

Source Category	Annual GHG Emissions (MMT CO_2e)	Percent of Total[a]
Transportation	169.86	40%
Industrial	89.40	21%
Electric power[b]	62.39	15%
Agriculture	32.42	8%
Residential	26.00	6%
Commercial	15.14	4%
High global-warming potential substances	19.99	5%
Recycling and waste	8.89	2%
Total	**424.10**	**100%**

Source: CARB 2019.

Notes: GHG = greenhouse gas; MMT CO_2e = million metric tons of carbon dioxide equivalent per year.
Emissions reflect the 2017 California GHG inventory.
[a] Percentage of total has been rounded, and total may not sum due to rounding.
[b] Includes emissions associated with imported electricity, which account for 26.28 MMT CO_2e annually.

Between 2000 and 2017, per-capita GHG emissions in California have dropped from a peak of 14.1 MT per person in 2001 to 10.7 MT per person in 2017, representing a 24% decrease. In addition, total GHG emissions in 2017 were approximately 5 MMT CO_2e less than 2016 emissions (CARB 2019).

The City has established a goal to reduce its community-wide GHG to reduce per capita GHG emissions 29% below business as usual by 2020 (City of Hesperia 2010a). The City's community-wide GHG emissions inventory for baseline year 2009 is presented in Table 4.6-2.

Table 4.6-2. City of Hesperia (Year 2009) Communitywide Greenhouse Gas Emissions Inventory

Community Sector	Total MT CO_2e/year	CO_2e (%)[1]
Transportation: Passenger Vehicles	199,414	31%
Transportation: Trucks	200,392	31%
Transportation: Other	7,454	1%
Natural Gas	34,507	5%
Electricity	135,824	21%
Solid Waste	28,394	4%
Wood Burning Fireplaces and Stoves	9,528	2%
Refrigerants	23,906	4%
Total	**639,419**	**100%**

Source: City of Hesperia 2010a.
Note: GHG = greenhouse gas; MT CO_2e = metric tons of carbon dioxide equivalent per year
[1] Totals may not sum due to rounding.

As shown on Table 4.6-2, approximately 63% of the City's GHG emissions in 2009 were attributed to transportation sources with the next highest attributed to electricity, which accounted for approximately 21%. All other sources each accounted for less than 5% of the City's GHG emissions in 2009.

Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. The 2014 IPCC Synthesis Report (IPCC 2014) indicated that warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. Signs that global climate change has occurred include warming of the atmosphere and ocean, diminished amounts of snow and ice, rising sea levels, and ocean acidification (IPCC 2014).

In California, climate change impacts have the potential to affect sea-level rise, agriculture, snowpack and water supply, forestry, wildfire risk, public health, frequency of severe weather events, and electricity demand and supply. The primary effect of global climate change has been a rise in average global tropospheric temperature. Reflecting the long-term warming trend since pre-industrial times, observed global mean surface temperature for the decade 2006–2015 was 0.87 °C (likely between 0.75 °C and 0.99 °C) higher than the average over the 1850–1900 period (IPCC 2018). Scientific modeling predicts that continued emissions of GHGs at or above current rates would induce more extreme climate changes during the twenty-first century than were observed during the twentieth century.

Human activities are estimated to have caused approximately 1.0°C (1.8°F) of global warming above pre-industrial levels, with a likely range of 0.8°C to 1.2°C (1.4°F to 2.2°F) (IPCC 2018). Global warming is likely to reach 1.5°C (2.7°F) between 2030 and 2052 if it continues to increase at the current rate (IPCC 2018).

Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. A scientific consensus confirms that climate change is already affecting California. The Office of Environmental Health Hazard Assessment identified various indicators of climate change in California, which are scientifically based measurements that track trends in various aspects of climate change. Many indicators reveal discernible evidence that climate change is occurring in California and is having significant, measurable impacts in the state. Changes in the state's climate have been observed including an increase in annual average air temperature with record warmth from 2012 to 2016, more frequent extreme heat events, more extreme drought, a decline in winter chill, an increase in cooling degree days and a decrease in heating degree days, and an increase in variability of statewide precipitation (OEHHA 2018).

Warming temperatures and changing precipitation patterns have altered California's physical systems—the ocean, lakes, rivers and snowpack—upon which the state depends. Winter snowpack and spring snowmelt runoff from the Sierra Nevada and southern Cascade Mountains provide approximately one-third of the state's annual water supply. Impacts of climate on physical systems have been observed such as high variability of snow-water content (i.e., amount of water stored in snowpack), decrease in spring snowmelt runoff, glacier change (loss in area), rise in sea levels, increase in average lake water temperature and coastal ocean temperature, and a decrease in dissolved oxygen in coastal waters (OEHHA 2018).

Impacts of climate change on biological systems, including humans, wildlife, and vegetation, have also been observed including climate change impacts on terrestrial, marine, and freshwater ecosystems. As with global observations, species responses include those consistent with warming: elevational or latitudinal shifts in range, changes in the timing of key plant and animal life cycle events, and changes in the abundance of species and in community composition. Humans are better able to adapt to a changing climate than plants and animals in natural ecosystems. Nevertheless, climate change poses a threat to public health as warming temperatures and changes in precipitation can affect vector-borne pathogen transmission and disease patterns in California as well as the variability of heat-related deaths and illnesses. In addition, since 1950, the area burned by wildfires each year has been increasing.

The California Natural Resources Agency (CNRA) has released four California Climate Change Assessments (2006, 2009, 2012, and 2018), which have addressed the following: acceleration of warming across the state, more intense and frequent heat waves, greater riverine flows, accelerating sea level rise, more intense and frequent drought, more severe and frequent wildfires, more severe storms and extreme weather events, shrinking snowpack and less overall precipitation, and ocean acidification, hypoxia, and warming. To address local and regional governments' need for information to support action in their communities, the Fourth Assessment (CNRA 2018a) includes reports for nine regions of the state, including the Inland Deserts Region, which includes San Bernardino County where the Project is located. Key projected climate changes for the Los Angeles Region include the following (CNRA 2018a):

- Continued future warming over the Inland Deserts region. Across the region, average maximum temperatures are projected to increase around 6°F to 10°F by the mid-century, and 8°F to 14°F by the late-century.
- Extreme temperatures are also expected to increase. The hottest day of the year may be up to 9°F warmer for many locations across the Inland Deserts region by the late century under certain model scenarios. The number of extremely hot days is also expected to increase across the region.

- Despite small changes in average precipitation, dry and wet extremes are both expected to increase. By the late twenty-first century, the wettest day of the year is expected to increase across most of the Inland Deserts region, with some locations experiencing a 30% increase under certain model scenarios. The combination of more intense rainfall and drier soils in an already very dry region will increase the probability of flash floods.
- Projections indicate that wildfire may increase over Southern California, but there remains uncertainty in quantifying future changes of burned area over the Inland Deserts region.

4.6.2 Relevant Plans, Policies, and Ordinances

International

United Nations Framework Convention on Climate Change, Kyoto Protocol, and Paris Agreement

In 1992, numerous countries joined an international treaty—the United Nations Framework Convention on Climate Change (UNFCCC)—as a framework for international cooperation to combat climate change by limiting average global temperature increases and the resulting climate change, and coping with associated impacts. Currently, there are 197 Parties (196 states and 1 regional economic integration organization) in the UNFCCC (UNFCCC 2019).

By 1995, countries launched negotiations to strengthen the global response to climate change, and, 2 years later, adopted the Kyoto Protocol, which was the first international agreement to regulate GHG emissions. The Kyoto Protocol legally binds developed country Parties to emission reduction targets. The Protocol's first commitment period started in 2008 and ended in 2012. The second commitment period began on January 1, 2013, and will end in 2020. More than 160 countries signed the Kyoto Protocol (UNFCCC 2019). In 2001, President George W. Bush indicated that he would not submit the treaty to the U.S. Senate for ratification, which effectively ended the United States' involvement in the Kyoto Protocol.

The 2015 Paris Agreement, adopted in Paris on December 12, 2015, marks the latest step in the evolution of the United Nations' climate change regime and builds on the work undertaken under the UNFCCC. The Paris Agreement charts a new course in the global effort to combat climate change. The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5°C (UNFCCC 2019). The Paris Agreement also aims to strengthen the ability of countries to deal with the impacts of climate change. The Paris Agreement requires all Parties to put forward their best efforts through nationally determined contributions and to strengthen these efforts in the years ahead.

The Paris Agreement entered into force on November 4, 2016, 30 days after the date on which at least 55 Parties to the UNFCCC, accounting in total for at least an estimated 55% of the total global GHG emissions, deposited their instruments of ratification, acceptance, approval or accession with the Depositary (UNFCCC 2019). On November 4, 2019, the Trump Administration gave formal notice of intention to withdraw from the Paris Agreement; however, withdrawal becomes effective one year after notification (in November 2020).

Federal

Massachusetts v. EPA

In *Massachusetts v. EPA* (April 2007), the U.S. Supreme Court directed the EPA administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In December 2009, the administrator signed a final rule with the following two distinct findings regarding GHGs under Section 202(a) of the federal Clean Air Act:

- The administrator found that elevated concentrations of GHGs—CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6—in the atmosphere threaten the public health and welfare of current and future generations. This is the "endangerment finding."
- The administrator further found the combined emissions of GHGs—CO_2, CH_4, N_2O, and HFCs—from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is the "cause or contribute finding."

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the Clean Air Act.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (December 2007), among other key measures, would do the following, which would aid in the reduction of national GHG emissions (EPA 2007):

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020, and directs National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy-efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

Federal Vehicle Standards

In response to the U.S. Supreme Court ruling previously discussed, the Bush Administration issued Executive Order (EO) 13432 in 2007 directing the EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011, and in 2010, the EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016 (75 FR 25324–25728).

In 2010, President Barack Obama issued a memorandum directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The

proposed standards projected to achieve 163 grams per mile of CO_2 in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021 (77 FR 62624–63200). On January 12, 2017, the EPA finalized its decision to maintain the current GHG emissions standards for model years 2022–2025 cars and light trucks (EPA 2017b).

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018 (76 FR 57106–57513). The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6%–23% over the 2010 baselines.

In August 2016, the EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO_2 emissions by approximately 1.1 billion MT and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program (EPA and NHTSA 2016).

In August 2018, EPA and NHTSA proposed to amend certain fuel economy and GHG standards for passenger cars and light trucks and establish new standards for model years 2021 through 2026. Compared to maintaining the post-2020 standards now in place, the 2018 proposal would increase U.S. fuel consumption by about half a million barrels per day (2%–3% of total daily consumption, according to the Energy Information Administration) and would impact the global climate by 3/1000th of 1°C by 2100 (EPA and NHTSA 2018). California and other states have stated their intent to challenge federal actions that would delay or eliminate GHG reduction measures and have committed to cooperating with other countries to implement global climate change initiatives.

On September 27, 2019, the EPA and NHTSA published the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program (84 FR 51310), which became effective November 26, 2019. The Part One Rule revokes California's authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. On March 31, 2020, the EPA and NHTSA issued the Part Two Rule, which will go into effect 60 days after being published in the Federal Register. The Part Two Rule sets CO_2 emissions standards and corporate average fuel economy standards for passenger vehicles and light-duty trucks for model years 2021 through 2026. This issue is evolving as California and 22 other states, as well as the District of Columbia and four cities, filed suit against the EPA and a petition for reconsideration of the rule on November 26, 2019. The litigation is not expected to be resolved for at least several months.

Clean Power Plan and New Source Performance Standards for Electric Generating Units

On October 23, 2015, EPA published a final rule (effective December 22, 2015) establishing the Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (80 FR 64510–64660), also known as the Clean Power Plan. These guidelines prescribe how states must develop plans to reduce GHG emissions from existing fossil-fuel-fired electric generating units. The guidelines establish CO_2 emission performance rates representing the best system of emission reduction for two subcategories of existing fossil-fuel-fired electric generating units: (1) fossil-fuel-fired electric utility steam-generating units, and (2) stationary combustion turbines. Concurrently, the EPA published a final rule (effective October 23, 2015) establishing

Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units (80 FR 64661–65120). The rule prescribes CO_2 emission standards for newly constructed, modified, and reconstructed affected fossil-fuel-fired electric utility generating units. The U.S. Supreme Court stayed implementation of the Clean Power Plan pending resolution of several lawsuits.

State

The statewide GHG emissions regulatory framework is summarized below by category: state climate change targets, building energy, renewable energy and energy procurement, mobile sources, solid waste, water, and other state regulations and goals. The following text describes EOs, legislation, regulations, and other plans and policies that would directly or indirectly reduce GHG emissions and/or address climate change issues.

State Climate Change Targets

The state has taken a number of actions to address climate change. These include EOs, legislation, and CARB plans and requirements. These are summarized below.

EO S-3-05. EO S-3-05 (June 2005) established the following statewide goals: GHG emissions should be reduced to 2000 levels by 2010, GHG emissions should be reduced to 1990 levels by 2020, and GHG emissions should be reduced to 80% below 1990 levels by 2050.

Assembly Bill (AB) 32. In furtherance of the goals established in EO S-3-05, the legislature enacted AB 32. The bill is referred to as the California Global Warming Solutions Act of 2006 (September 27, 2006). AB 32 provided initial direction on creating a comprehensive multi-year program to limit California's GHG emissions at 1990 levels by 2020 and initiate the transformations required to achieve the state's long-range climate objectives.

CARB's 2007 Statewide Limit. In 2007, in accordance with California Health and Safety Code, Section 38550, CARB approved a statewide limit on the GHG emissions level for year 2020 consistent with the determined 1990 baseline (427 MMT CO_2e).

CARB's Climate Change Scoping Plan. One specific requirement of AB 32 is for CARB to prepare a scoping plan for achieving the maximum technologically feasible and cost-effective GHG emission reductions by 2020 (California Health and Safety Code, Section 38561[a]), and to update the plan at least once every 5 years. In 2008, CARB approved the first scoping plan. The Climate Change Scoping Plan: A Framework for Change (Scoping Plan) included a mix of recommended strategies that combined direct regulations, market-based approaches, voluntary measures, policies, and other emission reduction programs calculated to meet the 2020 statewide GHG emission limit and initiate the transformations needed to achieve the state's long-range climate objectives. The key elements of the Scoping Plan include the following (CARB 2008):

1. Expanding and strengthening existing energy efficiency programs as well as building and appliance standards.
2. Achieving a statewide renewable energy mix of 33%.
3. Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85% of California's GHG emissions.
4. Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets.

5. Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard (LCFS) (17 CCR 95480 et seq.).
6. Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation.

The Scoping Plan also identified local governments as essential partners in achieving California's goals to reduce GHG emissions because they have broad influence and, in some cases, exclusive authority over activities that contribute to significant direct and indirect GHG emissions through their planning and permitting processes, local ordinances, outreach and education efforts, and municipal operations. Specifically, the Scoping Plan encouraged local governments to adopt a reduction goal for municipal operations and for community emissions to reduce GHGs by approximately 15% from then levels (2008) by 2020. Many local governments developed community-scale local GHG reduction plans based on this Scoping Plan recommendation.

In 2014, CARB approved the first update to the Scoping Plan. The First Update to the Climate Change Scoping Plan: Building on the Framework (First Update) defined the state's GHG emission reduction priorities for the next 5 years and laid the groundwork to start the transition to the post-2020 goals set forth in EO S-3-05 and EO B-16-2012. The First Update concluded that California is on track to meet the 2020 target but recommended a 2030 mid-term GHG reduction target be established to ensure a continuum of action to reduce emissions (CARB 2014). The First Update recommended a mix of technologies in key economic sectors to reduce emissions through 2050 including energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies. As part of the First Update, CARB recalculated the state's 1990 emissions level, using more recent GWPs identified by the IPCC, from 427 MMT CO_2e to 431 MMT CO_2e (CARB 2014).

In 2015, as directed by EO B-30-15, CARB began working on an update to the Scoping Plan to incorporate the 2030 target of 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80% below 1990 levels by 2050 as set forth in EO S-3-05. The governor called on California to pursue a new and ambitious set of strategies, in line with the five climate change pillars from his inaugural address, to reduce GHG emissions and prepare for the unavoidable impacts of climate change. In the summer of 2016, the legislature affirmed the importance of addressing climate change through passage of SB 32 (Chapter 249, Statutes of 2016).

In December 2017, CARB adopted the 2017 Climate Change Scoping Plan Update (2030 Scoping Plan) (CARB 2017). The 2030 Scoping Plan builds on the successful framework established in the initial Scoping Plan and First Update, while identifying new, technologically feasible and cost-effective strategies that will serve as the framework to achieve the 2030 GHG target and define the state's climate change priorities to 2030 and beyond. The strategies' known commitments include implementing renewable energy and energy efficiency (including the mandates of SB 350), increased stringency of the LCFS, measures identified in the Mobile Source and Freight Strategies, measures identified in the proposed Short-Lived Climate Pollutant Plan, and increased stringency of SB 375 targets. To fill the gap in additional reductions needed to achieve the 2030 target, it recommends continuing the cap-and-trade program and a measure to reduce GHGs from refineries by 20%.

CARB's Regulations for the Mandatory Reporting of Greenhouse Gas Emissions. CARB's Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (17 CCR 95100–95157) incorporated by reference certain requirements that EPA promulgated in its Final Rule on Mandatory Reporting of Greenhouse Gases (Title 40, CFR,

Part 98). Specifically, Section 95100(c) of the Mandatory Reporting Regulation incorporated those requirements that EPA promulgated in the Federal Register on October 30, 2009; July 12, 2010; September 22, 2010; October 28, 2010; November 30, 2010; December 17, 2010; and April 25, 2011. In general, entities subject to the Mandatory Reporting Regulation that emit over 10,000 MT CO_2e per year are required to report annual GHGs through the California Electronic GHG Reporting Tool. Certain sectors, such as refineries and cement plants, are required to report regardless of emission levels. Entities that emit more than the 25,000 MT CO_2e per-year threshold are required to have their GHG emission report verified by a CARB-accredited third party.

EO B-18-12. EO B-18-12 (April 2012) directed state agencies, departments, and other entities under the governor's executive authority to take action to reduce entity-wide GHG emissions by at least 10% by 2015 and 20% by 2020, as measured against a 2010 baseline. EO B-18-12 also established goals for existing state buildings for reducing grid-based energy purchases and water use.

SB 605 and SB 1383. SB 605 (2014) requires CARB to complete a comprehensive strategy to reduce emissions of short-lived climate pollutants in the state, and SB 1383 (2016) requires CARB to approve and implement that strategy by January 1, 2018. SB 1383 also establishes specific targets for the reduction of short-lived climate pollutants (40% below 2013 levels by 2030 for CH_4 and HFCs, and 50% below 2013 levels by 2030 for anthropogenic black carbon), and provides direction for reductions from dairy and livestock operations and landfills. Accordingly, and as mentioned above, CARB adopted its Short-Lived Climate Pollutant Reduction Strategy in March 2017. The Short-Lived Climate Pollutant Reduction Strategy establishes a framework for the statewide reduction of emissions of black carbon, CH_4, and fluorinated gases.

EO B-30-15. EO B-30-15 (April 2015) identified an interim GHG reduction target in support of targets previously identified under EO S-3-05 and AB 32. EO B-30-15 set an interim target goal of reducing GHG emissions to 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80% below 1990 levels by 2050 as set forth in EO S-3-05. To facilitate achieving this goal, EO B-30-15 called for CARB to update the Scoping Plan to express the 2030 target in terms of MMT CO_2e. The EO also called for state agencies to continue to develop and implement GHG emission reduction programs in support of the reduction targets.

Senate Bill (SB) 32 and AB 197. SB 32 and AB 197 (enacted in 2016) are companion bills. SB 32 codified the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40% below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, in order to provide ongoing oversight over implementation of the state's climate policies. AB 197 also added two members of the Legislature to the CARB Board as nonvoting members; requires CARB to make available and update (at least annually via its website) emissions data for GHGs, criteria air pollutants, and TACs from reporting facilities; and requires CARB to identify specific information for GHG emissions reduction measures when updating the Scoping Plan.

EO B-55-18. EO B-55-18 (September 2018) establishes a new statewide goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." This EO directs CARB to "work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal."

Building Energy

Title 24, Part 6. Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically established Building Energy Efficiency Standards that are designed to ensure new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. These energy efficiency standards are reviewed every few years by the Building Standards Commission and the California Energy Commission (CEC) (and revised if necessary) (California Public Resources Code, Section 25402[b][1]). The regulations receive input from members of industry, as well as the public, with the goal of "reducing of wasteful, uneconomic, inefficient, or unnecessary consumption of energy" (California Public Resources Code, Section 25402). These regulations are carefully scrutinized and analyzed for technological and economic feasibility (California Public Resources Code, Section 25402[d]) and cost effectiveness (California Public Resources Code, Sections 25402[b][2] and [b][3]). As a result, these standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment.

The 2019 Title 24 standards are the currently applicable building energy efficiency standards, and became effective on January 1, 2020. The 2019 Title 24 Building Energy Efficiency Standards will further reduce energy used and associated GHG emissions compared to prior standards. In general, single-family residences built to the 2019 standards are anticipated to use approximately 7% less energy due to energy efficiency measures than those built to the 2016 standards; once rooftop solar electricity generation is factored in, single-family residences built under the 2019 standards will use approximately 53% less energy than those under the 2016 standards (CEC 2018). Nonresidential buildings built to the 2019 standards are anticipated to use an estimated 30% less energy than those built to the 2016 standards (CEC 2018).

Title 24, Part 11. In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as California's Green Building Standards (CALGreen), and establishes minimum mandatory standards and voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential and state-owned buildings and schools and hospitals. The CALGreen 2019 standards, which are the current standards, became effective January 1, 2020.

For nonresidential projects, some of the key mandatory CALGreen 2019 standards include the following (24 CCR Part 11):

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).
- Designated parking for clean air vehicles. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 of the CALGreen Code (5.106.5.2).

- Electric vehicle (EV) charging stations. Construction shall comply with Section 5.106.5.3.1 (single charging space requirements) or Section 106.5.3.2 (multiple charging space requirements) to facilitate future installation of electric vehicle supply equipment (EVSE). The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. Table 5.106.5.3.3 of the CALGreen Code shall be used to determine if single or multiple charging space requirements apply for the future installation of EVSE (5.106.5.3).[3]
- Shade trees. Shade trees shall be planted to comply with Sections 5.106.12.1 (surface parking areas), 5.106.12.2 (landscape areas), and 5.106.12.3 (hardscape areas). Percentages shown shall be measured at noon on the summer solstice. Landscape irrigation necessary to establish and maintain tree health shall comply with Section 5.304.6. (5.106.12).
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
    - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1)
    - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).
    - Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).
    - Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute/20 [rim space (inches) at 60 psi] (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle/20 [rim space (inches) at 60 psi] (5.303.3.4.5).
- Outdoor potable water use in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent (5.304.1).
- Recycled water supply systems. Recycled water supply systems shall be installed in accordance with Sections 5.305.1.1 (outdoor recycled water supply systems), 5.305.1.2 (technical requirements for outdoor recycled water supply systems), and the California Plumbing Code (5.305.1).
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1 (construction waste management plan). 5.405.1.2 (waste management company), or 5.408.1.3 (waste stream reduction alternative); or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).

[3] Table 5.106.5.3.3 of the CALGreen code establishes a range of EV charging space requirements based on the total number of parking places of a project. At the minimum, no EV charging spaces are required if the project has a total of 0 to 9 parking spaces. At the maximum, 6% of the total parking spaces are required to be EV charging spaces for projects with a total number of actual parking spaces of 201 and over.

- Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).
- Commissioning. For new buildings 10,000 square feet and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements. Commissioning shall be performed in accordance with this section by trained personnel with experience on projects of comparable size and complexity (5.410.2).
- Outdoor Air Quality. Installations of HVAC, refrigeration, and fire suppression equipment shall comply with Section 5.508.1.1 (no CFCs) and Section 5.508.1.2 (no halons).

The CALGreen standards also include voluntary efficiency measures that are implemented at the discretion of local agencies and applicants.

Title 20. Title 20 of the California Code of Regulations requires manufacturers of appliances to meet state and federal standards for energy and water efficiency. The CEC certifies an appliance based on a manufacturer's demonstration that the appliance meets the standards. New appliances regulated under Title 20 include refrigerators, refrigerator-freezers, and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwashers; clothes washers and dryers; cooking products; electric motors; low-voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems.

SB 1. SB 1 (August 2006, "Go Solar California" or "Million Solar Roofs") established a $3 billion rebate program to support the goal of the state to install rooftop solar energy systems with a generation capacity of 3,000 megawatts through 2016. The goals included establishing solar energy systems as a viable mainstream option for both homes and businesses within 10 years of adoption, and placing solar energy systems on 50% of new homes within 13 years of adoption.

AB 1470 (Solar Water Heating). This bill established the Solar Water Heating and Efficiency Act of 2007. The bill includes findings and declarations of the legislature relating to the promotion of solar water heating systems and other technologies that reduce natural gas demand.

Renewable Energy and Energy Procurement

SB 1078. SB 1078 (September 2002) established the Renewables Portfolio Standard (RPS) program, which required an annual increase in renewable generation by the utilities equivalent to at least 1% of sales, with an aggregate goal of 20% by 2017. This goal was subsequently accelerated, requiring utilities to obtain 20% of their power from renewable sources by 2010 (EO S-14-08 and EO S-21-09).

SB 1368. SB 1368 (September 2006) required the CEC to develop and adopt regulations for GHG emission performance standards for the long-term procurement of electricity by local publicly owned utilities.

AB 1109. Enacted in 2007, AB 1109 required the CEC to adopt minimum energy efficiency standards for general-purpose lighting, to reduce electricity consumption by 50% for indoor residential lighting and 25% for indoor commercial lighting.

EO S-14-08. EO S-14-08 (November 2008) focused on the contribution of renewable energy sources to meet the electrical needs of California while reducing the GHG emissions from the electrical sector. This EO required that all retail suppliers of electricity in California serve 33% of their load with renewable energy by 2020.

EO S-21-09 and SB X1-2. EO S-21-09 (September 2009) directed CARB to adopt a regulation consistent with the goal of EO S-14-08 by July 31, 2010. On September 23, 2010, CARB initially approved regulations to implement a Renewable Electricity Standard. However, this regulation was not finalized because of subsequent legislation (SB X1-2, Simitian, Statutes of 2011) signed by Governor Brown in April 2011.

SB X1-2 expanded the RPS by establishing a renewable energy target of 20% of the total electricity sold to retail customers in California per year by December 31, 2013, and 33% by December 31, 2020, and in subsequent years. Under the bill, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation (30 megawatts or less), digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and that meets other specified requirements with respect to its location. SB X1-2 applies to all electricity retailers in the state including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators.

SB 350. SB 350 (October 2015, Clean Energy and Pollution Reduction Act) further expanded the RPS by establishing a goal of 50% of the total electricity sold to retail customers in California per year by December 31, 2030. In addition, SB 350 included the goal to double the energy efficiency savings in electricity and natural gas final end uses (e.g., heating, cooling, lighting, or class of energy uses on which an energy-efficiency program is focused) of retail customers through energy conservation and efficiency. The bill also requires the California Public Utilities Commission, in consultation with the CEC, to establish efficiency targets for electrical and gas corporations consistent with this goal. Regarding mobile sources, as one of its elements, SB 350 establishes a statewide policy for widespread electrification of the transportation sector, recognizing that such electrification is required for achievement of the state's 2030 and 2050 reduction targets (see California Public Utilities Code Section 740.12).

SB 100. SB 100 (2018) increased the standards set forth in SB 350 establishing that 44% of the total electricity sold to retail customers in California per year by December 31, 2024; 52% by December 31, 2027; and 60% by December 31, 2030, be secured from qualifying renewable energy sources. SB 100 states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity to California. This bill requires that the achievement of 100% zero-carbon electricity resources do not increase the carbon emissions elsewhere in the western grid and that the achievement not be achieved through resource shuffling.

Mobile Sources

State Vehicle Standards (AB 1493 and EO B-16-12). AB 1493 (July 2002) was enacted in a response to the transportation sector accounting for more than half of California's CO_2 emissions. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by the state board to be vehicles that are primarily used for noncommercial personal transportation in the state. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. EO B-16-12 (March 2012) required that state entities under the governor's direction and control support and facilitate the rapid commercialization of zero-emissions vehicles. It ordered CARB, CEC, California Public Utilities Commission, and other relevant agencies to work with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve benchmark goals by 2015, 2020, and 2025. On a statewide basis, EO B-16-12 established a target reduction of GHG emissions from the transportation sector equaling 80% less than 1990 levels by 2050. This directive did not

apply to vehicles that have special performance requirements necessary for the protection of the public safety and welfare. As explained under the "Federal Vehicle Standards" description above, EPA and NHTSA approved the SAFE Vehicles Rule Part One and Two, which revoked California's authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. As the EPA rule is the subject of pending legal challenges, and CARB has not issued GHG adjustment factors for EMFAC, this analysis continues to utilize the best available information at this time, as set forth in EMFAC.

Heavy Duty Diesel. CARB adopted the final Heavy Duty Truck and Bus Regulation, Title 13, Division 3, Chapter 1, Section 2025, on December 31, 2014, to reduce particulate matter and NO_x emissions from heavy-duty diesel vehicles. The rule requires particulate matter filters be applied to newer heavier trucks and buses by January 1, 2012, with older vehicles required to comply by January 1, 2015. The rule will require nearly all diesel trucks and buses to be compliant with the 2010 model year engine requirement by January 1, 2023. CARB also adopted an Airborne Toxic Control Measure to limit idling of diesel-fueled commercial vehicles on December 12, 2013. This rule requires diesel-fueled vehicles with gross vehicle weights greater than 10,000 pounds to idle no more than 5 minutes at any location (13 CCR 2485).

EO S-1-07. EO S-1-07 (January 2007, implementing regulation adopted in April 2009) sets a declining LCFS for GHG emissions measured in CO_2e grams per unit of fuel energy sold in California. The target of the LCFS is to reduce the carbon intensity of California passenger vehicle fuels by at least 10% by 2020 (17 CCR 95480 et seq.). The carbon intensity measures the amount of GHG emissions in the lifecycle of a fuel, including extraction/feedstock production, processing, transportation, and final consumption, per unit of energy delivered.

SB 375. SB 375 (September 2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 requires CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035 and to update those targets every 8 years. SB 375 requires each of the state's 18 regional metropolitan planning organizations to prepare a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plan (RTP) that will achieve the GHG reduction targets set by CARB. If a metropolitan planning organization is unable to devise an SCS to achieve the GHG reduction target, the metropolitan planning organization must prepare an alternative planning strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

Pursuant to Government Code Section 65080(b)(2)(K), a SCS does not (1) regulate the use of land; (2) supersede the land use authority of cities and counties; or (3) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it. Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the state-mandated housing element process.

In September 2010, CARB adopted the first SB 375 targets for the regional metropolitan planning organizations. The targets for the Southern California Association of Governments (SCAG) are an 8% reduction in emissions per capita by 2020 and a 13% reduction by 2035. Achieving these goals through adoption of an SCS is the responsibility of the metropolitan planning organizations. SCAG adopted its first RTP/SCS in April 2012. The plan quantified a 9% reduction by 2020 and a 16% reduction by 2035 (SCAG 2012). In June 2012, CARB accepted SCAG's quantification of GHG reductions and its determination the SCS, if implemented, would achieve SCAG targets. On April 4, 2016, the SCAG Regional Council adopted the 2016 RTP/SCS, which builds upon the progress made in the 2012 RTP/SCS. The updated RTP/SCS quantified an 8% reduction by 2020 and an 18% reduction by 2030 (SCAG 2016). In June 2016, CARB accepted SCAG's quantification of GHG reductions and its determination that the SCS, if

implemented, would achieve SCAG targets. In March 2018, CARB approved SCAG's updated targets of an 8% reduction by 2020 and a 19% reduction by 2030, effective October 1, 2018, which are consistent with the reduction targets from the Connect SoCal (2020-2045 RTP/SCS), adopted May 2020 (SCAG 2020).

Advanced Clean Cars Program and Zero-Emissions Vehicle Program. The Advanced Clean Cars Program (January 2012) is a new emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars (CARB 2012). To improve air quality, CARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that in 2025, cars will emit 75% less smog-forming pollution than the average new car sold today. To reduce GHG emissions, CARB, in conjunction with the EPA and the NHTSA, adopted new GHG standards for model year 2017 to 2025 vehicles; the new standards are estimated to reduce GHG emissions by 34% in 2025. The Zero-Emissions Vehicle Program will act as the focused technology of the Advanced Clean Cars Program by requiring manufacturers to produce increasing numbers of zero-emissions vehicles and plug-in hybrid electric vehicles in the 2018 to 2025 model years.

AB 1236. AB 1236 (October 2015) required a city, county, or city and county to approve an application for the installation of EV charging stations, as defined, through the issuance of specified permits, unless the city or county makes specified written findings based upon substantial evidence in the record that the proposed installation would have a specific, adverse impact upon the public health or safety, and there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact. The bill provided for appeal of that decision to the planning commission, as specified. The bill provided that the implementation of consistent statewide standards to achieve the timely and cost-effective installation of EV charging stations is a matter of statewide concern. The bill required EV charging stations to meet specified standards. The bill required a city, county, or city and county with a population of 200,000 or more residents to adopt an ordinance, by September 30, 2016, that created an expedited and streamlined permitting process for EV charging stations, as specified. The bill also required a city, county, or city and county with a population of less than 200,000 residents to adopt this ordinance by September 30, 2017.

Solid Waste

AB 939, AB 341, and AB 1826. In 1989, AB 939, known as the Integrated Waste Management Act (California Public Resources Code, Sections 40000 et seq.), was passed because of the increase in waste stream and the decrease in landfill capacity. The statute established the California Integrated Waste Management Board, which oversees a disposal reporting system. AB 939 mandated a reduction of waste being disposed where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25% by 1995 and 50% by the year 2000.

AB 341 (Chapter 476, Statutes of 2011) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75% of solid waste generated be source-reduced, recycled, or composted by the year 2020, and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery (CalRecycle) to develop strategies to achieve the state's policy goal. CalRecycle conducted several general stakeholder workshops and several focused workshops and in August 2015 published a discussion document titled AB 341 Report to the Legislature, which identifies five priority strategies that CalRecycle believes would assist the state in reaching the 75% goal by 2020, legislative and regulatory recommendations, and an evaluation of program effectiveness (CalRecycle 2012).

AB 1826 (Chapter 727, Statutes of 2014, effective 2016) requires businesses to recycle their organic waste (i.e., food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste) depending on the amount of waste they generate per week. This law also requires local jurisdictions across the state to implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. The minimum threshold of organic waste generation by businesses decreases over time, which means an increasingly greater proportion of the commercial sector will be required to comply.

Water

EO B-29-15. In response to the ongoing drought in California, EO B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25% relative to water use in 2013. The term of the EO extended through February 28, 2016, although many of the directives have become permanent water-efficiency standards and requirements. The EO includes specific directives that set strict limits on water usage in the state. In response to EO B-29-15, the California Department of Water Resources has modified and adopted a revised version of the Model Water Efficient Landscape Ordinance that, among other changes, significantly increases the requirements for landscape water use efficiency and broadens its applicability to include new development projects with smaller landscape areas.

EO B-37-16. Issued May 2016, EO B-37-16 directed the State Water Resources Control Board (SWRCB) to adjust emergency water conservation regulations through the end of January 2017 to reflect differing water supply conditions across the state. The SWRCB also developed a proposal to achieve a mandatory reduction of potable urban water usage that builds off the mandatory 25% reduction called for in EO B-29-15. The SWRCB and Department of Water Resources will develop new, permanent water use targets that build upon the existing state law requirements that the state achieve 20% reduction in urban water usage by 2020. EO B-37-16 also specifies that the SWRCB permanently prohibit water-wasting practices such as hosing off sidewalks, driveways, and other hardscapes; washing automobiles with hoses not equipped with a shut-off nozzle; using non-recirculated water in a fountain or other decorative water feature; watering lawns in a manner that causes runoff, or within 48 hours after measurable precipitation; and irrigating ornamental turf on public street medians.

Other State Actions

Senate Bill 97. SB 97 (August 2007) directed the Governor's Office of Planning and Research to develop guidelines under the California Environmental Quality Act (CEQA) for the mitigation of GHG emissions. In 2008, the Office of Planning and Research issued a technical advisory as interim guidance regarding the analysis of GHG emissions in CEQA documents. The advisory indicated that the lead agency should identify and estimate a project's GHG emissions, including those associated with vehicular traffic, energy consumption, water usage, and construction activities (OPR 2008). The advisory further recommended that the lead agency determine significance of the impacts and impose all mitigation measures necessary to reduce GHG emissions to a level that is less than significant. CNRA adopted the CEQA Guidelines amendments in December 2009, which became effective in March 2010.

Under the amended CEQA Guidelines, a lead agency has the discretion to determine whether to use a quantitative or qualitative analysis or apply performance standards to determine the significance of GHG emissions resulting from a particular project (14 CCR 15064.4[a]). The CEQA Guidelines require a lead agency to consider the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]). The CEQA Guidelines also allow a lead agency to consider feasible means of mitigating the significant effects of GHG emissions, including reductions in

emissions through the implementation of project features or off-site measures. The adopted amendments do not establish a GHG emission threshold, but instead allow a lead agency to develop, adopt, and apply its own thresholds of significance or those developed by other agencies or experts. CNRA also acknowledges that a lead agency may consider compliance with regulations or requirements implementing AB 32 in determining the significance of a project's GHG emissions (CNRA 2009a).

With respect to GHG emissions, the CEQA Guidelines state in Section 15064.4(a) that lead agencies should "make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions. The CEQA Guidelines note that an agency may identify emissions by either selecting a "model or methodology" to quantify the emissions or by relying on "qualitative analysis or other performance-based standards" (14 CCR 15064.4[a]). Section 15064.4(b) states that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment: (1) the extent a project may increase or reduce GHG emissions as compared to the existing environmental setting; (2) whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]).

EO S-13-08. EO S-13-08 (November 2008) is intended to hasten California's response to the impacts of global climate change, particularly sea-level rise. Therefore, the EO directs state agencies to take specified actions to assess and plan for such impacts. The final 2009 California Climate Adaptation Strategy report was issued in December 2009 (CNRA 2009b), and an update, Safeguarding California: Reducing Climate Risk, followed in July 2014 (CNRA 2014). To assess the state's vulnerability, the report summarizes key climate change impacts to the state for the following areas: agriculture, biodiversity and habitat, emergency management, energy, forestry, ocean and coastal ecosystems and resources, public health, transportation, and water. Issuance of the Safeguarding California: Implementation Action Plans followed in March 2016 (CNRA 2016). In January 2018, the CNRA released the Safeguarding California Plan: 2018 Update, which communicates current and needed actions that state government should take to build climate change resiliency (CNRA 2018b).

Local

The following local/regional regulations pertaining to GHGs would apply to the Project.

Mojave Desert Air Quality Management District

The Project is within the Mojave Desert Air Basin portion of San Bernardino County, which is under the jurisdiction of the Mojave Desert Air Quality Management District (MDAQMD). The MDAQMD has adopted GHG emissions thresholds in its CEQA Guidelines, but has not adopted a comprehensive strategy for reducing GHG emissions. The MDAQMD threshold is 100,000 tons of CO_2e per year, or approximately 90,718 MT CO_2e per year (MDAQMD 2016).

General Plan

Policies pertaining to reducing GHGs are addressed in the Conservation Element of the general plan (City of Hesperia 2010b). The following policies from the Conservation Element are applicable to the Project:

Goal CN-1 Conserve water resources within the Upper Mojave River Groundwater Basin.

Policy CN-1.1 Promote the use of desert vegetation with low water usage and drought tolerant materials in landscaped areas.

Policy CN-1.6 Encourage the use of low-water consumption fixtures in homes and businesses.

Goal CN-2 Establish building and development standards to maximize the reclamation of water resources.

Policy CN-2.2 Encourage the use of reclaimed water for irrigation and other non-potable uses.

Goal CN-6 Provide programs and incentives to encourage residents, businesses and developers to reduce consumption and efficiently use energy resources.

Policy CN-6.2 Encourage the use of green building standards and Leadership in Energy and Environmental Design (LEED) or similar programs in both private and public projects.

Goal CN-7 Develop, promote and implement policies to reduce and limit GHG emissions.

Policy CN-7.4 Promote the utilization of alternative energy resources such as wind and solar in new development.

Policy CN-7.5 Promote the utilization of environmentally sensitive construction materials to limit impacts on the ozone, global climate change and mineral resources.

Policy CN-7.7 Promote energy conservation through site layout, building design, natural light and efficient mechanical and electrical products in development.

Policy CN-7.8 Continue the existing recycling program and utilization of the material recovery facility program while exploring additional methods of reducing waste.

Policy CN-7.9 Promote sustainable principles in development that conserves such natural resources as air quality and energy resources.

Climate Action Plan

On July 20, 2010, the City of Hesperia adopted the Climate Action Plan (CAP), which provides a framework for reducing GHG emissions and managing resources to best prepare for a changing climate (City of Hesperia 2010b). The CAP recommends GHG emissions targets that are consistent with the reduction targets of the State of California and presents a number of strategies that will make it possible for the City to meet the recommended targets. Strategy CAP-1 specifies "projects that are consistent with this CAP could result in less than significant impacts regarding climate change." This is because emissions from these projects are generally accounted for in this CAP and would be consistent with this CAP reduction target. To be consistent with this CAP, CEQA projects must implement the applicable implementation strategies listed in Section 4.2 of the CAP. Per CAP Implementation Action 1.5 (CAP-1.5), projects that require a discretionary approval shall reduce operational GHG emissions by at least 12%, without accounting for regulations discussed in the CAP.

4.6.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to greenhouse gases/climate change are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to greenhouse gas emissions would occur if the Project would:

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.
C. Result in cumulatively considerable impacts with regard to greenhouse gas emissions.

The City has not adopted a numeric significance threshold for determining significant impacts associated with GHG emissions. As such thresholds established by the MDAQMD are utilized.

On May 13, 2010 EPA finalized the GHG Tailoring Rule (75 FR 31514, June 3, 2010). The Tailoring Rule sets major source emissions thresholds that define when federal operating permits under Prevention Significant Deterioration (PSD) or Title V are required. The Tailoring Rule establishes a threshold of 100,000 tons per year or 90,719 MT per year[4] of GHGs from new sources above which sources are considered major sources requiring a federal operating permit.

As such, the MDAQMD has adopted a significance threshold for GHGs of 100,000 tons per year and is thus applied to this Project. More specifically, 100,000 tons per year of GHG emissions from a single facility constitutes major sources that require a federal operating permit. Similarly, the MDAQMDs NO_X significance threshold of 25 tons per year is equal to the major source threshold applicable to areas designated severe non-attainment for ozone. As such, use of the EPAs determination of whether a Project is a major source and consequently establishing a threshold based on that is supported by substantial evidence.

Methodology

Emissions from construction and operation of the Project and existing land uses were estimated using the CalEEMod Version 2016.3.2.[5] Notably, the latest version of CalEEMod uses vehicle emission rates obtained from the EMissions FACtor model (EMFAC) 2014 web database (CAPCOA 2017). EMFAC2014 emission rates of all vehicle categories are based on aggregated model year and aggregated speed for all counties, air basins, air districts and statewide average for 31 scenario years that each includes three seasons (annual, summer, and winter). Notably, the EPA approved the 2017 version of the EMFAC web database on August 19, 2019. Emission factors from EMFAC2017 were incorporated into CalEEMod for this analysis.

Construction

Construction of the Project would result in GHG emissions primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. All details for construction criteria air pollutants discussed in Section 4.2.3 (Methodology, Construction Emissions subsection) of Section 4.2, Air Quality, are also applicable for the estimation of construction-related GHG emissions. As such, see Section 4.2.3 for a discussion of construction emissions calculation methodology and assumptions used in the GHG emissions analysis.

Operation

Project operations would generate CO_2, CH_4, and N_2O emissions. Primary emissions sources would include:

- Area Source (landscape and site maintenance activities)

[4] This analysis utilizes the MDAQMD 90,719 MT per year threshold.
[5] CalEEMod is a statewide computer model developed in cooperation with air districts throughout the state to quantify criteria air pollutant emissions associated with the construction and operational activities from a variety of land use projects, such as residential, commercial, and industrial facilities. CalEEMod input parameters, including the Project land use type and size and construction schedule were based on information provided by the Project applicant, or default model assumptions if Project specifics were unavailable.

- Energy Source (combustion emissions associated with natural gas and electricity)
- Mobile Source (vehicles)
- On-Site Cargo Handling Equipment Emissions
- Solid Waste
- Water Supply, Treatment, and Distribution

Area Source Emissions. Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in CalEEMod.

Energy Source Emissions. GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO_2 and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building; the building energy use emissions do not include street lighting.[6] GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. GHG emissions associated with the natural gas and electricity usage associated with the Project were calculated by CalEEMod using default parameters. In addition, the CalEEMod defaults for Title 24 – Electricity and Lighting Energy were reduced by 30% in order to reflect consistency with the 2019 Title 24 standard.

Mobile Source Emissions. Project-related operational air quality impacts derive primarily from vehicle trips generated by the Project. Trip characteristics available from the Traffic Impact Analysis (Appendix K-1) were utilized in this analysis. Two separate model runs were utilized for cars and trucks for each Project scenario in order to more accurately model emissions resulting from passenger car and truck operations.

The first run analyzed passenger car emissions, which incorporated the CalEEMod default trip length of 9.50 miles for passenger cars and an assumption of 100% primary trips. It is important to note that although the TIA does not breakdown passenger cars by type, this analysis assumes that passenger cars include Light-Duty-Auto vehicles (LDA), Light-Duty-Trucks (LDT1 and LDT2), and Medium-Duty-Vehicles (MDV) vehicle types. In order to account for emissions generated by passenger cars, the fleet mix presented in Table 4.6-3 was utilized in this analysis.

Table 4.6-3. Passenger Car Fleet Mix

Land Use	Vehicle Type	Percent[a]
High-Cube Fulfillment Center Warehouse/ General Light Industrial	LDA	62.06
	LDT1	4.19
	LDT2	20.27
	MDV	13.48

Source: Appendix G.

[a] The Project-specific passenger car fleet mix used in this analysis is based on a proportional split utilizing the CalEEMod default percentage assigned to LDA, LDT1, LDT2, and MDV vehicle types.

The second run analyzed truck emissions, incorporated a truck trip length of 40 miles and an assumption of 100% primary trips. In order to be consistent with the TIA, trucks are broken down by truck type. The trucks are comprised

[6] The CalEEMod emissions inventory model does not include indirect emission related to street lighting. Indirect emissions related to street lighting are expected to be negligible and cannot be accurately quantified at this time as there is insufficient information as to the number and type of street lighting that would occur.

of 2-axle/Light-Heavy-Duty Trucks (LHDT), 3-axle/Medium-Heavy-Duty Trucks (MHDT), and 4+-axle/Heavy-Heavy-Duty Trucks (HHDT). In order to account for emissions generated by trucks, the fleet mix presented in Table 4.6-4 was utilized in this analysis.

It should be noted that the TIA identifies two different truck categories for the high-cube fulfillment center warehouse use, 2-4-axle and 5+-axle trucks. CalEEMod categorizes trucks by truck type, not by axle-type. In order to account for emissions from LHDT, MHDT, and HHDT trucks, the analysis herein assumed that 25% of the 2-4 axle trucks are LHDT, 25% are MHDT, and the remaining 50% are HHDT.

Table 4.6-4. Truck Fleet Mix

Land Use	Vehicle Type	Percent[a]
High-Cube Fulfillment Center Warehouse	LHDT	10.71
	MHDT	10.71
	HHDT	78.57
General Light Industrial	LHDT	37.36
	MHDT	18.21
	HHDT	44.43

Source: Appendix G.

[a] Project-specific truck fleet mix is based on the number of trips generated by each truck type (LHDT, MHDT, HHDT) relative to the total number of truck trips generated by the Project.

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust inclusive of break and tire wear particulates. The emissions estimates for travel on paved roads were calculated using CalEEMod.

On-Site Equipment Source Emissions. It is common for industrial warehouse buildings to require cargo handling equipment to move empty containers and empty chassis to and from the various pieces of cargo handling equipment that receive and distribute containers. The most common type of cargo handling equipment is the yard truck which is designed for moving cargo containers. Yard trucks are also known as yard goats, utility tractors (UTRs), hustlers, yard hostlers, and yard tractors. The cargo handling equipment is assumed to have a horsepower (hp) range of approximately 175 hp to 200 hp. For this particular Project, based on the maximum square footage of warehouse building space permitted by the Project, on-site modeled operational equipment includes up to 15, 200 hp compressed natural gas or gasoline-powered yard tractors operating at 4 hours a day for 365 days of the year.

Solid Waste. Industrial land uses will result in the generation and disposal of solid waste. A large percentage of this waste will be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted will be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material. GHG emissions associated with the disposal of solid waste associated with the Project were calculated by CalEEMod using default parameters.

Water Supply, Treatment, and Distribution. Indirect GHG emissions result from the production of electricity used to convey, treat and distribute water and wastewater. The amount of electricity required to convey, treat and distribute water depends on the volume of water as well as the sources of the water. Based on the *City of Hesperia General Plan Evaluation Water Supply Evaluation*, demand rates for commercial land uses were 3,000 gallons per day per acre. As such, the Project is anticipated to have a total water demand of 213,297,953 gallons per year.

Project Design Features

Energy-saving and sustainable design features and operational programs would be incorporated into facilities developed pursuant to the currently Project. The Project also incorporates and expresses the following project design features (PDFs) and attributes promoting energy efficiency and sustainability. Because these features/attributes are integral to the Project, and/or are regulatory requirements, they are not considered to be mitigation measures.

- The Project will design building shells and building components, such as windows; roof systems: electrical and lighting systems: and heating, ventilating, and air conditioning systems to meet 2019 Title 24 Standards which expects 30% less energy for non-residential buildings.
- To reduce water demands and associated energy use, subsequent development proposals within the Project site would be required to implement a Water Conservation Strategy and demonstrate a minimum 20% reduction in indoor and outdoor water usage when compared to baseline water demand (total expected water demand without implementation of the Water Conservation Strategy).[7]
- In order to reduce the amount of waste disposed at landfills, the Project would implement a 75% waste diversion.

4.6.4 Impacts Analysis

Threshold A: Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less-than-Significant Impact. For construction phase Project emissions, GHGs are quantified and amortized over the life of the Project. MDAQMD follows the SCAQMD recommendation in calculating the total GHG emissions for construction activities by amortizing the emissions over the life of the Project by dividing it by a 30-year Project life then adding that number to the annual operational phase GHG emissions. As such, construction emissions were amortized over a 30-year period and added to the annual operational phase GHG emissions. The amortized construction emissions are presented in Table 4.6-5.

Table 4.6-5. Estimated Annual Construction GHG Emissions

	CO_2	CH_4	N_2O	CO_2e
Project	*Metric Tons per Year*			
2021	3,876.42	0.36	0.00	3,885.37
			Amortized Construction Emissions	*129.51*

Notes: GHG = greenhouse gas; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.
See Appendix G for complete results.

As shown in Table 4.6-5, total estimated GHG emissions generated during construction of the Project is approximately 3,885 MT CO_2e. Estimated Project-generated construction emissions amortized over 30 years would be approximately 130 MT CO_2e per year.

[7] Reduction of 20% indoor and outdoor water usage is consistent with the current CALGreen Code performance standards for residential and non-residential land uses. Per CALGreen, the reduction shall be based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code.

Long-term operations of the Project would result in GHG emissions through mobile sources and on-site equipment, area sources (landscape maintenance equipment); energy use (natural gas and generation of electricity consumed by the Project); generation of electricity associated with wastewater treatment and with water supply, treatment, and distribution; and solid waste disposal. Annual GHG emissions from these sources were estimated using CalEEMod.

To effectively analyze operational GHG emissions associated with the Project, two scenarios were modeled. The first scenario represents Project emissions under a without regulatory measures and PDFs (shown as "unmitigated" emissions in CalEEMod), which estimates Project emissions absent federal, state, and local measures and without Project features intended to reduce GHG emissions upon Project buildout. The second scenario (shown as "mitigated" emissions in CalEEMod) represents Project emissions with implementation of applicable federal, state, and local GHG reduction measures and Project features. The estimated operational GHG emissions without regulatory requirements and PDFs from the Project are shown in Table 4.6-6. Details of the emission calculations are provided in Appendix G.

Table 4.6-6. Estimated Annual Operational GHG Emissions – Without Regulatory Requirements and PDFs

Project	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
Area Source	0.17	<0.01	0.00	0.18
Energy Source	9,875.06	0.31	0.10	9,913.46
Mobile Sources (Passenger Cars)	12,783.37	0.35	0.00	12,792.21
Mobile Sources (Trucks)	37,014.63	0.17	0.00	37,018.97
On-Site Equipment Sources	762.61	0.25	0.00	768.77
Waste	798.94	47.22	0.00	1,979.34
Water Usage	1,078.02	0.99	0.17	1,303.85
Annual construction-related emissions amortized over 30 years	129.21	0.01	0.00	129.51
			Total Project Emissions	**63,906.29**

Notes: GHG = greenhouse gas; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent; PDFs = project design features.
See Appendix G for complete results.

As shown on Table 4.6-6, without accounting for applicable regulatory requirements and PDFs, the Project would result in approximately 63,906 MT CO_2e per year.

The Project would be required to comply with all mandates imposed by the State of California and the MDAQMD. Those measures that are applicable to the Project and that would assist in the reduction of GHG emissions are as follows:

- Global Warming Solutions Act of 2006 (AB 32).
- Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (SB 375).
- Pavley Fuel Efficiency Standards (AB 1493). Establishes fuel efficiency ratings for new vehicles.
- Title 24 California Code of Regulations (California Building Code). Establishes energy efficiency requirements for new construction.
- Title 20 California Code of Regulations (Appliance Energy Efficiency Standards). Establishes energy efficiency requirements for appliances.

- Title 17 California Code of Regulations (Low Carbon Fuel Standard). Requires carbon content of fuel sold in California to be 10% less by 2020.
- California Water Conservation in Landscaping Act of 2006 (AB 1881). Requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or equivalent by January 1, 2010 to ensure efficient landscapes in new development and reduced water waste in existing landscapes.
- Statewide Retail Provider Emissions Performance Standards (SB 1368). Requires energy generators to achieve performance standards for GHG emissions.
- Renewable Portfolio Standards (SB 1078). Requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20 % by 2010 and 33% by 2020.
- SB 32. Requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15.

In addition to the above regulatory measures, the Project would implement the PDFs described in Section 4.6.3, in the Project Design Features subsection. The estimated operational GHG emissions with regulatory requirements and PDFs from the Project are shown in Table 4.6-7.

Table 4.6-7. Estimated Annual Operational GHG Emissions – With Regulatory Requirements and PDFs

	CO_2	CH_4	N_2O	CO_2e
Project	*Metric Tons per Year*			
Area Source	0.17	<0.01	0.00	0.18
Energy Source	6,600.86	0.29	0.09	6,635.45
Mobile Sources (Passenger Cars)	9,789.03	0.35	0.00	9,797.86
Mobile Sources (Trucks)	37,014.63	0.17	0.00	37,018.97
On-Site Equipment Sources	762.61	0.25	0.00	768.77
Waste	199.74	11.80	0.00	494.84
Water Usage	573.17	5.59	0.14	753.83
Annual construction-related emissions amortized over 30 years	129.21	0.01	0.00	129.51
			Total Project Emissions	55,599.41

Notes: GHG = greenhouse gas; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent; PDFs = project design features.
See Appendix G for complete results.

As shown on Table 4.6-7, with applicable regulatory requirements and PDFs, the Project would result in approximately 55,599 MT CO_2e per year, which is below the MDAQMD GHG threshold of 90,719 MT CO_2e per year. Therefore, the Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and this would represent a cumulatively less than significant impact.

Threshold B: Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less-than-Significant Impact. As previously stated, pursuant to 15604.4 of the *CEQA Guidelines*, a lead agency may rely on qualitative analysis or performance-based standards to determine the significance of impacts from GHG emissions. As such, the Project's consistency with SB 32 (2017 Scoping Plan) and the City's CAP, is discussed below. It should be noted that the Project's consistency with the 2017 Scoping Plan also satisfies consistency with AB 32 since the 2017

Scoping Plan is based on the overall targets established by AB 32. Consistency with the 2008 Scoping Plan is not necessary, since the target year for the 2008 Scoping Plan was 2020, and the Project's buildout year is 2021. As such, the 2008 Scoping Plan does not apply and consistency with the 2017 Scoping Plan is relevant.

2017 Scoping Plan Consistency

The *2017 Scoping Plan* Update reflects the 2030 target of a 40% reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. Table 4.6-8 summarizes the Project's consistency with the *2017 Scoping Plan*. As summarized in Table 4.6-8, the Project will not conflict with any of the provisions of the *Scoping Plan* and in fact supports seven of the action categories.

Table 4.6-8. Consistency with 2017 Scoping Plan

Action	Responsible Parties	Consistency
Implement SB 350 by 2030		
Increase the Renewables Portfolio Standard to 50% of retail sales by 2030 and ensure grid reliability.	CPUC, CEC, CARB	Consistent. The Project would use energy from Southern California Edison (SCE). SCE has committed to diversify its portfolio of energy sources by increasing energy from wind and solar sources. The Project would not interfere with or obstruct SCE energy source diversification efforts.
Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030.		Consistent. The Project would be constructed in compliance with current California Building Code requirements. Specifically, new buildings must achieve compliance with 2019 Building and Energy Efficiency Standards and the 2019 California Green Building Standards requirements. The Project includes energy efficient field lighting and fixtures that meet the current Title 24 Standards throughout the Project Site and would be a modern development with energy efficient boilers, heaters, and air conditioning systems.
Reduce GHG emissions in the electricity sector through the implementation of the above measures and other actions as modeled in Integrated Resource Planning (IRP) to meet GHG emissions reductions planning targets in the IRP process. Load-serving entities and publicly- owned utilities meet GHG emissions reductions planning targets through a combination of measures as described in IRPs.		
Implement Mobile Source Strategy (Cleaner Technology and Fuels)		
At least 1.5 million zero emission and plug-in hybrid light-duty EVs by 2025.	CARB, California State Transportation Agency (CalSTA), Strategic Growth Council (SGC), California Department of	Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty EV 2025 targets. As this is a CARB enforced standard, vehicles that access the Project are required to comply with the standards and will therefore comply with the strategy.

Table 4.6-8. Consistency with 2017 Scoping Plan

Action	Responsible Parties	Consistency
At least 4.2 million zero emission and plug-in hybrid light-duty EVs by 2030.	Transportation (Caltrans), CEC, OPR, Local Agencies	Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty EV 2030 targets. As this is a CARB enforced standard, vehicles that access the Project are required to comply with the standards and will therefore comply with the strategy.
Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations.		Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations. As this is a CARB enforced standard, vehicles that access the Project are required to comply with the standards and will therefore comply with the strategy.
Medium- and Heavy-Duty GHG Phase 2.		Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to implement Medium- and Heavy-Duty GHG Phase 2. As this is a CARB enforced standard, vehicles that access the Project are required to comply with the standards and will therefore comply with the strategy.
Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20% of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100% of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NO_X standard.		Not applicable. This measure is not within the purview of this Project.
Last Mile Delivery: New regulation that would result in the use of low NO_X or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes ZEVs comprise 2.5% of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10% in 2025 and remaining flat through 2030.		Not applicable. This Project is not responsible for implementation of SB 375 and would therefore not conflict with this measure

Table 4.6-8. Consistency with 2017 Scoping Plan

Action	Responsible Parties	Consistency
Further reduce VMT through continued implementation of SB 375 and regional Sustainable Communities Strategies; forthcoming statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy but included in the document "Potential VMT Reduction Strategies for Discussion."		Consistent. This Project would not obstruct or interfere with implementation of SB 375 and would therefore not conflict with this measure.
Increase stringency of SB 375 Sustainable Communities Strategy (2035 targets).	CARB	Not applicable. The Project is not within the purview of SB 375 and would therefore not conflict with this measure.
Harmonize project performance with emissions reductions and increase competitiveness of transit and active transportation modes (e.g. via guideline documents, funding programs, project selection, etc.).	CalSTA, SGC, OPR, CARB, Governor's Office of Business and Economic Development (GO-Biz), California Infrastructure and Economic Development Bank (IBank), Department of Finance (DOF), California Transportation Commission (CTC), Caltrans	Consistent. The Project would not obstruct or interfere with agency efforts to harmonize transportation facility project performance with emissions reductions and increase competitiveness of transit and active transportation modes.
By 2019, develop pricing policies to support low-GHG transportation (e.g. low-emission vehicle zones for heavy duty, road user, parking pricing, transit discounts).	CalSTA, Caltrans, CTC, OPR, SGC, CARB	Consistent. The Project would not obstruct or interfere with agency efforts to develop pricing policies to support low-GHG transportation.
Implement California Sustainable Freight Action Plan		
Improve freight system efficiency.	CalSTA, CalEPA, CNRA, CARB, Caltrans, CEC, GO-Biz	Consistent. This measure would apply to all trucks accessing the Project sites, this may include existing trucks or new trucks that are part of the statewide goods movement sector. The Project would not obstruct or interfere with agency efforts to improve freight system efficiency.

Table 4.6-8. Consistency with 2017 Scoping Plan

Action	Responsible Parties	Consistency
Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.		Not applicable. This measure is not within the purview of this Project.
Adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18%.	CARB	Consistent. When adopted, this measure would apply to all fuel purchased and used by the Project in the state. The Project would not obstruct or interfere with agency efforts to adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18%.
Implement the Short-Lived Climate Pollutant Strategy (SLPS) by 2030		
40% reduction in methane and hydrofluorocarbon emissions below 2013 levels.	CARB, CalRecycle, CDFA, California State Water Resource Control Board (SWRCB), Local Air Districts	Not applicable. This measure is not within the purview of this Project.
50% reduction in black carbon emissions below 2013 levels.		
By 2019, develop regulations and programs to support organic waste landfill reduction goals in the SLCP and SB 1383.	CARB, CalRecycle, CDFA, SWRCB, Local Air Districts	Not applicable. This measure is not within the purview of this Project.
Implement the post-2020 Cap-and-Trade Program with declining annual caps.	CARB	Consistent. The Project would be required to comply with any applicable Cap-and-Trade Program provisions. The Project would not obstruct or interfere agency efforts to implement the post-2020 Cap-and-Trade Program.
By 2018, develop Integrated Natural and Working Lands Implementation Plan to secure California's land base as a net carbon sink		
Protect land from conversion through conservation easements and other incentives.	CNRA, Departments Within CDFA, CalEPA, CARB	Not applicable. This measure is not within the purview of this Project. However, the Project site is not an identified property that needs to be conserved.
Increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity		Not applicable. This measure is not within the purview of this Project.
Utilize wood and agricultural products to increase the amount of carbon stored in the natural and built environments		Consistent. To the extent appropriate for the proposed industrial buildings, wood products would be used in construction, including for the roof structure.
Establish scenario projections to serve as the foundation for the Implementation Plan		Not applicable. This measure is not within the purview of this Project.

Table 4.6-8. Consistency with 2017 Scoping Plan

Action	Responsible Parties	Consistency
Implement Forest Carbon Plan	CNRA, California Department of Forestry and Fire Protection (CAL FIRE), CalEPA and Departments Within	Not applicable. This measure is not within the purview of this Project.
Identify and expand funding and financing mechanisms to support GHG reductions across all sectors.	State Agencies and Local Agencies	Not applicable. This measure is not within the purview of this Project.

Source: CARB 2017.

As shown above, the Project would not conflict with any of the *2017 Scoping Plan* elements as any regulations adopted would apply directly or indirectly to the Project. Further, recent studies show that the state's existing and proposed regulatory framework will allow the state to reduce its GHG emissions level to 40% below 1990 levels by 2030.

Consistency with the CAP

As previously stated, the CAP presents a number of strategies that will make it possible for the City to meet the recommended GHG emissions targets that are consistent with the reduction targets of the state. The Project's consistency with applicable CAP strategies are presented in Table 4.6-9.

Table 4.6-9. Climate Action Plan Strategy Consistency Analysis

CAP Strategy		Project Consistency
CAP-1.5	Projects that require a discretionary approval shall reduce operational GHG emissions by at least 12%, without accounting for regulations discussed in the CAP. The project inventory should include all potential sources, including but not limited to those identified in this CAP.	Consistent. The inventory prepared in this report includes all applicable sources of GHG emissions including area, mobile, water use, wastewater and solid waste. With the inclusion of Project design features, the Project would reduce GHG emissions by 12.99%, about 1% beyond what is required by the CAP.

Source: City of Hesperia 2010a.

The Project's emissions without regulatory requirements and PDFs as compared to the Project's emissions with regulatory requirements and PDFs are shown on Table 4.6-10. The Project's emissions without accounting for regulatory requires and PDFs would be 63,906 MT CO_2e per year. After implementation, Project GHG emissions would be reduced to 55,599 MT CO_2e per year. This yields a reduction of approximately 13%, which satisfies the City's CAP target of a 12% reduction. As such, the Project is consistent with the City's CAP.

Table 4.6-10. Climate Action Plan Emissions Reduction Goal Consistency Analysis

Project GHG Emissions	CO_2e (Metric Tons per Year)
Total Project Emissions without Regulatory Requirements and PDFs	63,906.29
Total Project Emissions with Regulatory Requirements and PDFs	55,599.41
Percent Reduction	**13%**

Notes: GHG = greenhouse gas; CO_2e = carbon dioxide equivalent; PDFs = project design features.
See Appendix G for complete results.

The Project demonstrates consistency with the General Plan, CAP goals, measures, and emission reduction targets, and would not conflict with any applicable plan, policy, or regulation of an agency adopted to reduce GHG emissions, including Title 24, AB 32, and SB 32. Therefore, impacts would be less than significant.

Would the Project result in cumulatively considerable impacts with regard to greenhouse gas emissions?

Less-than-Significant Impact. As previously discussed in Section 4.6.1, Existing Conditions, GHG emissions impacts are inherently cumulative in nature. As shown in Table 4.6-7, the Project would not result in GHG emissions in exceedance of the MDAQMD significance threshold. Therefore, cumulatively, Project GHG emissions would be less than significant.

4.6.5 Mitigation Measures and Level of Significance After Mitigation

Threshold A: Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The Project would result in **less-than-significant impacts** with regard to generating greenhouse gases emissions. No mitigation is required.

Threshold B: Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The Project would result in **less-than-significant impacts** with regard to conflicting with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. No mitigation is required.

Threshold C: Would the Project result in cumulatively considerable impacts with regard to greenhouse gas emissions?

The Project would result in **less-than-significant impacts** with regard to greenhouse gas emissions, and thus, impacts would not be considered cumulatively considerable. No mitigation is required.

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4.7 Hazards, Hazardous Materials, and Wildfire

This section describes the existing hazards, hazardous materials, and wildfire conditions of the Hesperia Commerce Center II Project (Project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to the implementation of the Project.

In addition to the documents incorporated by reference (see Section 2.7 of Chapter 2 of this Environmental Impact Report [EIR]), the following analysis is based, in part, on the following sources:

- *Phase I Environmental Site Assessment*, prepared by Consolidated Consulting Group LLC, in February 2017 (Appendix H)

4.7.1 Existing Conditions

Project Site Conditions

The Project consists of a 194.8-acre, irregularly-shaped site, which consists of vacant, undeveloped land. Ground surface cover within the Project site is moderately vegetated with native grasses, shrubs, and trees. Surface elevation within the Project site is relatively flat, ranging between 3,522 feet in the northeast corner to 3,602 feet above mean sea level in the southwest. For a majority of the Project site, the local topographic gradient is approximately 2% towards the northeast, while the southwest corner is sloping approximately 7% to the west. The Project site has been moderately disturbed in the past due to illegal dumping, trespassing, and unpermitted off-road vehicle use. These previously unpermitted activities have led to areas of exposed bare soils (where trails have formed) and several refuse piles.

The Project site is underlain by alluvial soils, consisting of loose to dense silty sands with trace fine to coarse gravel content and occasional fine root fibers. On-site exploratory drilling did not encounter groundwater within 40 feet below ground surface (bgs). In addition, the nearest groundwater monitoring well is located approximately 1607 feet to the east of the site. Water level readings within this monitoring well indicate a groundwater level of approximately 586 feet bgs (Southern California Geotechnical 2019).

Phase I Environmental Site Assessment Findings

A Phase I Environmental Site Assessment (ESA) was conducted to identify potential or existing environmental contamination on the site. During the preparation of the Phase I ESA, Consolidated Consulting Group LLC (CCG) searched both state and federal hazardous material databases to determine if the Project site currently contains or previously contained hazardous materials as a result of existing or past uses. A regulatory database report for the Project site, prepared by Environmental Data Resources Inc. (EDR), is included in Appendix 7.2 within the Phase I ESA (Appendix H). In addition to the database report, CCG contacted several local and regional agencies involved in regulating and keeping records of hazardous materials for any information connected to the Project site. Agencies that were contacted include the City and County Department of Health/Environmental Division, the City of Hesperia Fire Department, the City of Hesperia Planning and Zoning Department, and the City of Hesperia Building Permit/Inspection Department (Appendix H).

Project Site

The Project site was not identified on government databases pertaining to the storage and disposal of petroleum products and hazardous materials/hazardous waste. The site reconnaissance of the Project site identified numerous refuse piles/dumpsites are located throughout the subject property. Observed refuse generally consisted of domestic waste (paper, plastic, etc.) and construction debris (lumber, sheetrock, brick, etc.); however, materials of specific environmental concern, including motor oil containers and used automotive tires, were observed in refuse piles on the east and northwest portions of the subject property. Multiple (50+) 5-gallon buckets and 5-quart jugs labeled as containing motor oil were observed in these areas. The containers were observed to be full, partially full, or empty and several areas of stained soil were observed in the areas around these containers. Based on observations made at the time of the site visit, CCG considers the used tires/oil containers and associated staining to represent a recognized environmental condition (REC) in connection with the subject property. In addition, CCG considers the numerous refuse piles of d waste and construction debris discussed above to represent a de minimis[1] condition in connection with the Project site (Appendix H).

Surrounding Areas

The Phase I ESA did not identify any environmental concerns within current or past adjacent sites. Land uses surrounding the Project site primarily consists of vacant land, along with some scattered residential, commercial, light industrial, and utility uses. Specific land uses located in the immediate vicinity of the Project site include the following:

- **North:** Yucca Terrace Drive followed by undeveloped land and several storage facilities.
- **East:** U.S. Highway 395 followed by a utility sub-station and undeveloped land.
- **South:** Phelan Road followed by undeveloped land and single-family residential housing.
- **West:** Los Angeles Bureau of Power and Light Road utility/transmission corridor, vacant land, and rural residential uses (Appendix H).

Existing Fire Environment

Wildfire is a continuous threat in Southern California, and is particularly concerning in the wildland–urban interface, the geographic area where urban development either abuts or intermingles with wildland or vegetative fuels. The City contains several miles of wildland-urban interface, where established development meets or is interspersed with the open desert landscape, as well as foothills and mountains in the southern portion of the City. Fire hazard mapping, fire history, vegetation communities, topography, and climate, weather and wind are all important factors to consider when evaluating the existing fire environment and potential risks related to wildfire. The following subsections provide details regarding the existing fire environment in the City and on the Project site.

Fire Hazard Mapping

CAL FIRE's database also includes map data documenting areas of significant fire hazard throughout the state. These maps designate geographic areas as fire hazard severity zones (FHSZs). CAL FIRE uses FHSZs to classify anticipated fire-related hazards for the entire state. FHSZs are ranked as Moderate, High, or Very High, and are also differentiated by State Responsibility Areas (SRA), Local Responsibility Areas (LRA), and Federal Responsibility Areas

[1] De minimis conditions are defined by the American Society for Testing Materials (ASTM) as environmental conditions that "generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."

(FRA), which delineate areas where state, local, or federal government agencies are financially responsible for fire protection and prevention. CAL FIRE data includes proposed Fire Hazard Severity Zone Maps for SRA lands and separate draft Very High Fire Hazard Severity Zone Maps for Local Responsibility Area lands. Fire hazard severity classifications take into account vegetation, topography, weather, crown fire production, and ember production and movement.

According to CAL FIRE, the Project site is designated as being within a moderate FHSZ within the LRA (CAL FIRE 2008). The nearest very high FHSZ in the City is located approximately 8 miles south, and the nearest very high FHSZ in the SRA is located approximately 5 miles south. Additionally, the City has adopted these recommendations for Very High FHSZs within the City's LRA, per Exhibit SF-2 of the City's General Plan (City of Hesperia 2010a). However, as shown in Figure 4.7-1, Fire Hazard Severity Zones, the Project site is located adjacent to SRA lands to the west and south. These SRA lands are designated as moderate FHSZ to the west and high FHSZ to the south.

Fire History

Fire History data provides valuable information regarding fire spread, fire frequency, ignition sources, and vegetation/fuel mosaics across a given landscape. One important use for this information is as a tool for pre-planning. It is advantageous to know which areas may have burned recently and therefore may provide a tactical defense position, what type of fire burned on the site, and how a fire may spread. The fire history information presented below comes from CAL FIRE's FRAP database. The FRAP database summarizes multi-agency fire perimeter data since the late 1800s. For CAL FIRE, timber fires 10 acres or greater, brush fires 30 acres and greater, and grass fires 300 acres or greater are included. For the USFS, there is a 10 acre minimum for fires since 1950 (CAL FIRE 2020).

Although this data is incomplete as it is limited to larger fires, the data provides a summary of recorded fires and can be used to show whether large fires have occurred in the Project area, which provides an indication of whether they may be possible in the future. Fire history recorded for the Project area is presented in Figure 4.7-2, Wildfire History. In addition to these fires, dozens of small vegetation fires, typically less than one acre in size, are reported in the Hesperia area annually (City of Hesperia 2010a). According to available data from CAL FIRE in the FRAP database, 25 fires have burned within a 5 mile buffer of the Project site since the beginning of the historical fire data record. Recorded wildfires within 5 miles of the Project site range from 16 acres (1968) to 36,266 acres (2016) and the average fire size is 4,503 acres (not including smaller fires excluded from the data). The most recent large fire to occur near the Project site was the Blue Cut Fire (approximately 36,266 acres), which occurred in 2016 in the foothills and mountains and burned to approximately 4 miles southwest of the Project Site. The nearest fire to the Project site occurred in 1945 and burned 8,388 acres approximately 1.2 miles to the west of the site.

As shown in Figure 4.7-2, Wildfire History, several historical wildland fires have occurred primarily in the southern portion of the City and in the foothills and mountains to the south, and no fires have burned onto or adjacent to the Project site.

Vegetation Communities and Land Covers

Variations in vegetative cover type and species composition have a direct effect on fire behavior. Some plant communities and their associated plant species have increased flammability based on plant physiology (resin content), biological function (flowering, retention of dead plant material), physical structure (bark thickness, leaf size, branching patterns), and overall fuel loading. For example, non-native grass dominated plant communities become seasonally prone to ignition and produce lower intensity, higher spread rate fires. In comparison, California sagebrush scrub can produce higher heat intensity and higher flame lengths under strong, dry wind patterns, but does not typically ignite or spread as quickly as light, flashy grass fuels.

It is important to consider the dynamic nature of vegetation communities. Fire presence and absence at varying cycles or regimes affects plant community succession. Succession of plant communities, most notably the gradual conversion of shrublands to grasslands with high-frequency fires and grasslands to shrublands with fire exclusion, is highly dependent on the fire regime. Further, biomass and associated fuel loading will increase over time if disturbance or fuel reduction efforts are not diligently implemented.

The City is located in the lower Mojave section of the Southeastern Deserts Bioregion. The predominant vegetation assemblages in this area include desert shrub, creosote bush shrub and succulent shrub. Other important vegetation types include Joshua tree woodland, shad-scale scrub, blackbrush scrub, and desert scrub-steppe. About one-third of the desert floor in the Mojave section is devoid of vegetation, limiting the amount of surface fuel loads available to burn (City of Hesperia 2010a).

As discussed in Section 4.3, Biological Resources, the land cover type on the Project site and the surrounding area is considered Joshua tree woodland.

Topography

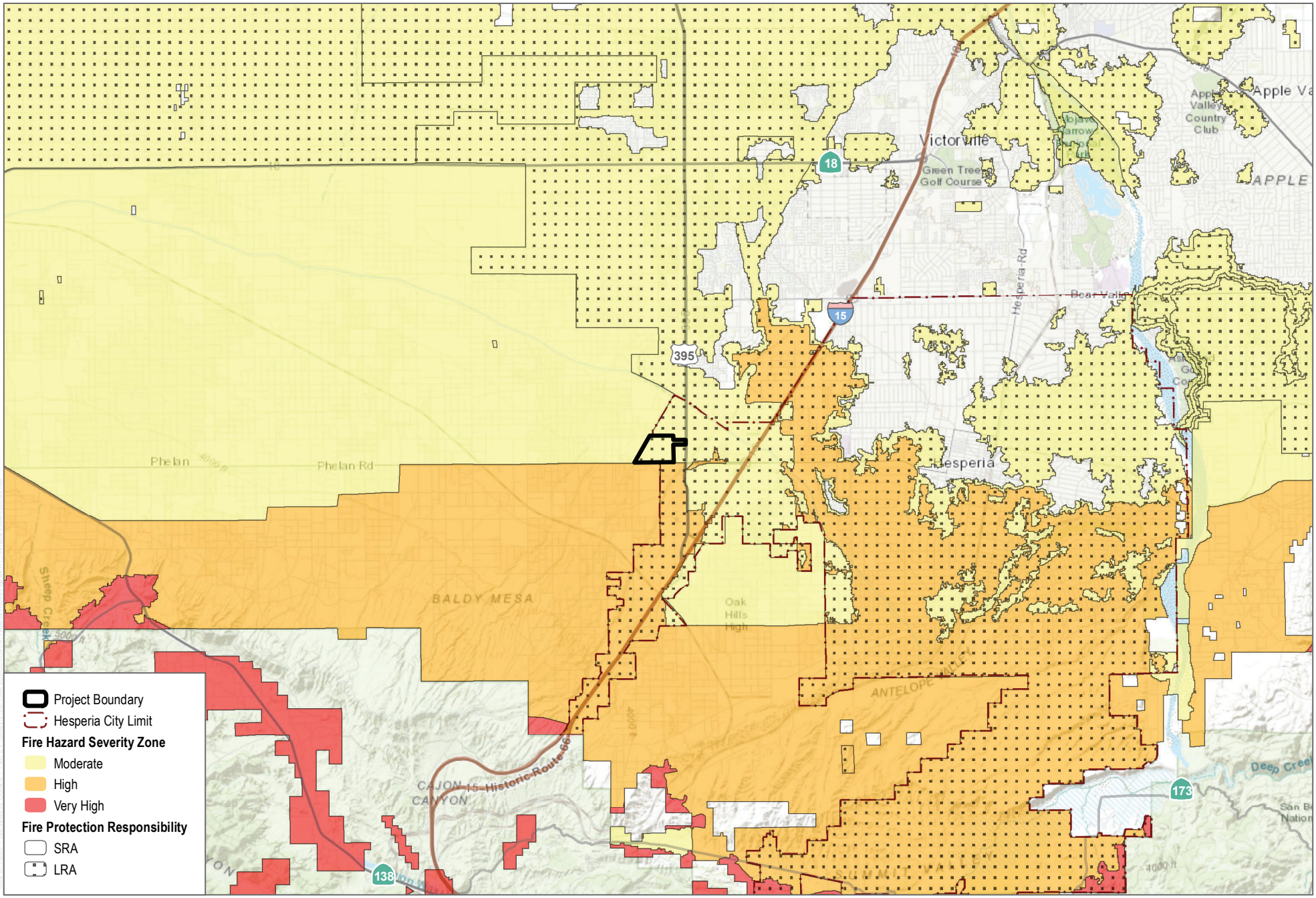
Topography influences fire risk by affecting fire spread rates. Typically, steep terrain results in faster fire spread up slope and slower spread down slope. Terrain that forms a funneling effect—such as chimneys, chutes, or saddles—on the landscape can result in especially intense fire behavior, including faster spread and higher intensity. Conversely, flat terrain tends to have little effect on fire spread, resulting in fires that are driven by vegetation and wind.

The topography in the City is relatively flat, containing modest variations in elevation, with a maximum elevation change of 335 feet and an average elevation of approximately 3,181 feet above mean seal level (amsl) (Weather Spark 2020). As previously discussed, the Project site is relatively flat, with elevations ranging from 3,522 feet amsl in the northeast corner to 3,602 feet amsl in the southwest. The Project site has slopes ranging from approximately 2% to 7%, with the steeper slopes in the western portion of the site where the terrain lowers into the adjacent wash/drainage area within the Los Angeles Bureau of Power and Light Road utility corridor.

Weather, Climate, and Wind

The annual average high temperature in Hesperia is 77.5°F, with daily highs in the summer months (June-September) exceeding 91°F. Precipitation typically occurs from November through March, with an average annual rainfall of 5.52 inches (WRCC 2020).

The Project site, like much of Southern California, is influenced by prevailing wind patterns. Prevailing winds are winds that blow from a single direction over a specific area of the Earth. The prevailing wind pattern in the City varies throughout the year, but occurs most often from the west from February through November, and from the north from November through February. The highest wind speeds are reached from January through July, with average wind speeds exceeding 7.5 miles per hour (mph) and wind gusts exceeding 14 mph. The remainder of the year, average wind speeds reach approximately 6.4 mph (Weather Spark 2020). The wind experienced at any given location is highly dependent on local topography and other factors, and instantaneous wind speed and direction vary more widely than the averages presented above.



SOURCE: Esri, HERE, Garmin; CAL FIRE 2007

DUDEK

0 1 2 Miles

FIGURE 4.7-1

Fire Hazard Severity Zones

Hesperia Commerce Center II

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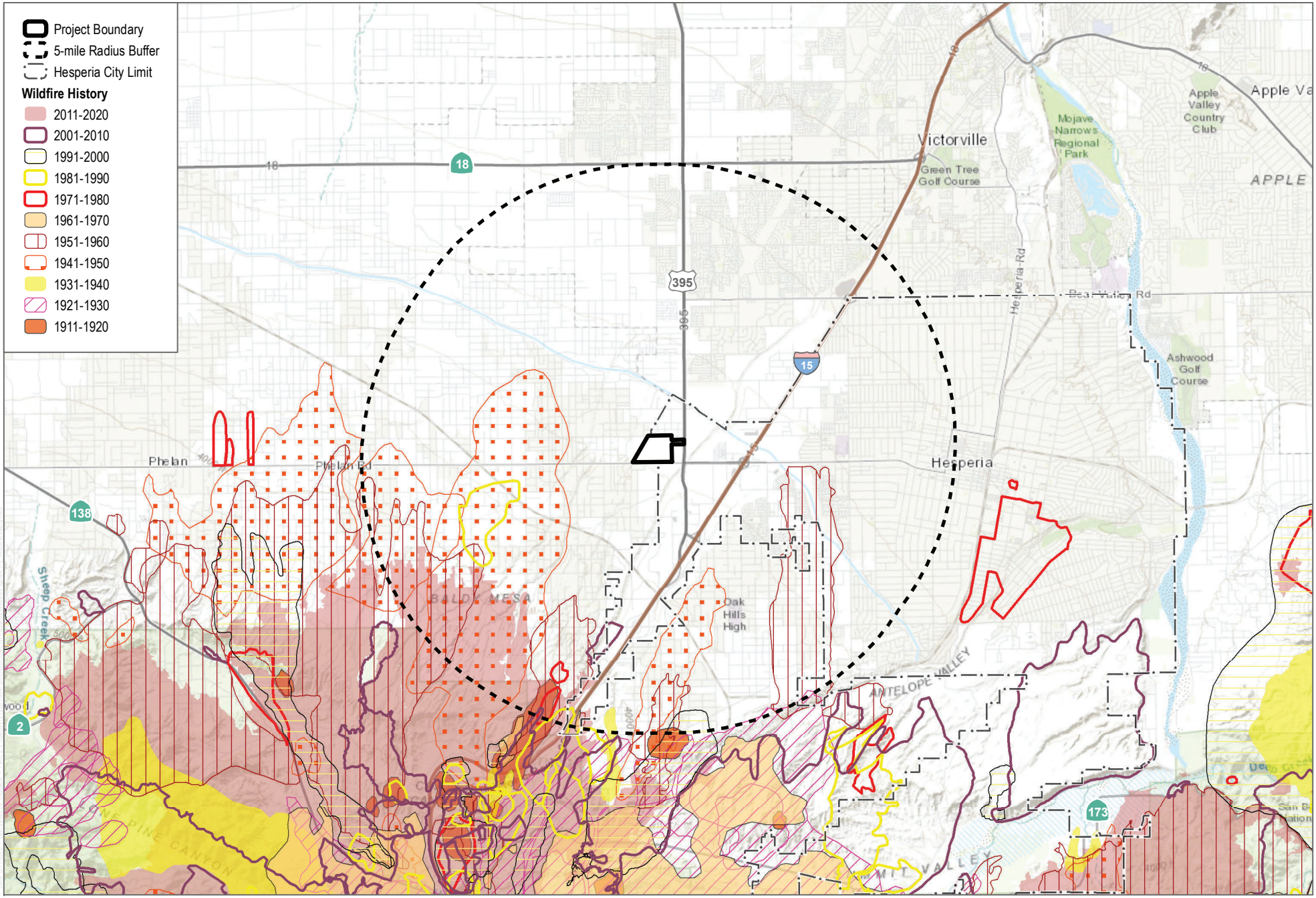

SOURCE: Esri, HERE, Garmin; CAL FIRE 2020

DUDEK

0 1 2 Miles

FIGURE 4.7-2

Wildfire History

Hesperia Commerce Center II

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Fire Protection

The City is served by the San Bernardino County Fire Department (SBCFD) (City of Hesperia 2010a). Currently there are three fire stations within the City: Stations 302, 304, and Station 305. Fire Station 305 (8331 Caliente Road) is located approximately 1.7 miles south of the Project site, Fire Station 304 (15660 Eucalyptus Street) is located approximately 5.2 miles to the northeast, and Fire Station 302 (17288 Olive Street) is located approximately 6.8 miles to the east (City of Hesperia 2020). The staffing and apparatus available at each station is shown in Table 4.7-1.

Table 4.7-1. Hesperia Fire Station Staffing and Apparatus

Station No.	Staffing	Apparatus
302	7 people daily	1 Paramedic engine 1 Brush engine 2 Paramedic ambulances
304	5 people daily	1 Paramedic engine 1 Ladder truck 1 Paramedic ambulance 1 Water truck 1 Chief vehicle Heavy rescue vehicle
3.5	4 people and 1 battalion chief daily	1 Paramedic Fire Engine 1 Paramedic Ambulance 1 Water Tender 1 Brush Patrol 2 Reserve engines

Source: City of Hesperia 2020

4.7.2 Relevant Plans, Policies, and Ordinances

Federal

Hazards and Hazardous Materials

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as "Superfund," was enacted by Congress on December 11, 1980. This law provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA established requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at these sites, and established a trust fund to provide for cleanup when no responsible party could be identified. CERCLA also enabled a revision of the National Contingency Plan. The National Contingency Plan provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The National Contingency Plan also established the National Priorities List, which is a list of contaminated sites warranting further investigation by the U.S. Environmental Protection Agency (USEPA). The Superfund Amendments and Reauthorization Act amended CERCLA on October 17, 1986.

The Federal Toxic Substances Control Act of 1976 and Resource Conservation and Recovery Act of 1976

The Federal Toxic Substances Control Act of 1976 and Resource Conservation and Recovery Act (RCRA) established a program administered by the USEPA for the regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the "cradle-to-grave" system of regulating hazardous wastes. The Hazardous and Solid Waste Act specifically prohibited the use of certain techniques for the disposal of some hazardous wastes.

National Pollutant Discharge Elimination System Permit Program

The National Pollution Discharge Elimination System (NPDES) permit program was established in the Clean Water Act (CWA) to regulate municipal and industrial discharges to surface waters of the United States. Discharge from any point source is unlawful unless the discharge is in compliance with an NPDES permit. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

Wildland Fire

National Fire Protection Association Codes, Standards, Practices, and Guides

National Fire Protection Association codes, standards, recommended practices, and guides are developed through a consensus standards development process approved by the American National Standards Institute. This process brings together professionals representing varied viewpoints and interests to achieve consensus on fire and other safety issues. National Fire Protection Association standards are recommended guidelines and nationally accepted good practices in fire protection, but are not laws or codes unless adopted as such or referenced as such by the California Fire Code (CFC) or the local fire agency.

Federal Wildland Fire Management Policy

The Federal Wildland Fire Management Policy was developed in 1995, updated in 2001, and again in 2009 by the National Wildfire Coordinating Group, a federal multi-agency group that establishes consistent and coordinated fire management policy across multiple federal jurisdictions. An important component of the Federal Wildland Fire Management Policy is the acknowledgment of the essential role of fire in maintaining natural ecosystems. The Federal Wildland Fire Management Policy and its implementation are founded on the following guiding principles, found in the Guidance for Implementation of Federal Wildland Fire Management Policy (National Wildfire Coordinating Group 2009):

- Firefighter and public safety is the first priority in every fire management activity.
- The role of wildland fire as an essential ecological process and natural change agent will be incorporated into the planning process.
- Fire management plans, programs, and activities support land and resource management plans and their implementation.
- Sound risk management is a foundation for all fire management activities.

- Fire management programs and activities are economically viable, based upon values to be protected, costs, and land and resource management objectives.
- Fire management plans and activities are based upon the best available science.
- Fire management plans and activities incorporate public health and environmental quality considerations.
- Federal, state, tribal, local, interagency, and international coordination and cooperation are essential.
- Standardization of policies and procedures among federal agencies is an ongoing objective.

National Fire Plan

The National Fire Plan, officially titled *Managing the Impacts of Wildfire on Communities and the Environment: A Report to the President in Response to the Wildfires of 2000*, was a presidential directive in 2000 as a response to severe wildland fires that had burned throughout the United States. The National Fire Plan focuses on reducing fire impacts on rural communities and providing assurance for sufficient firefighting capacity in the future. The plan addresses five key points: firefighting, rehabilitation, hazardous fuels reduction, community assistance, and accountability. The plan provides technical, financial, and resource guidance and support for wildland fire management across the United States. The USDA Forest Service and the Department of the Interior are working to successfully implement the key points outlined in the plan (DOI and USDA 2000).

International Fire Code

Created by the International Code Council, the International Fire Code (IFC) addresses a wide array of conditions hazardous to life and property, including fire, explosions, and hazardous materials handling or usage (although not a federal regulation, but rather the product of the International Code Council). The International Fire Code places an emphasis on prescriptive and performance-based approaches to fire prevention and fire protection systems. Updated every 3 years, the International Fire Code uses a hazards classification system to determine the appropriate measures to be incorporated to protect life and property (often times these measures include construction standards and specialized equipment). The International Fire Code uses a permit system (based on hazard classification) to ensure that required measures are instituted (International Code Council 2017).

State

Hazards and Hazardous Materials

Cortese List/Government Code 65962.5

California Government Code Section 65962.5 requires that information regarding environmental impacts of hazardous substances and wastes be maintained and provided at least annually to the Secretary for Environmental Protection. Commonly referred to as the Cortese List, this information must include the following: sites impacted by hazardous wastes, public drinking water wells that contain detectable levels of contamination, underground storage tanks (USTs) with unauthorized releases, solid waste disposal facilities from which there is migration of hazardous wastes, and all cease and desist and cleanup and abatement orders. This information is maintained by various agencies, including the Department of Toxic Substances Control (DTSC), State Department of Health Services, State Water Resources Control Board (SWRCB), and local Certified Unified Program Agencies (CUPAs). As each of the regulatory agencies typically now maintains these records in an electronic format, those requesting a Cortese List for a particular site are directed to the individual regulatory agencies. Typically, records searches are conducted via a regulatory database search company, such as the records search from EDR contained in the Phase I ESA for the

Project. Database search companies such as EDR usually conduct searches in accordance with ASTM Standard of Practice E 1527-13 Standard Practice for ESAs. The list of databases that are searched during this process is more comprehensive than the Cortese list. As such, the database search conducted for the Project includes the Cortese list but is not limited to this list.

California Hazardous Waste Control Act, Title 22 of the California Code of Regulations and Hazardous Waste Control Law, Chapter 6.5

The DTSC is responsible for the enforcement of the Hazardous Waste Control Act (California Health and Safety Code, Section 25100 et seq.), which creates the framework under which hazardous wastes are managed in California. The law provides for the development of a state hazardous waste program that administers and implements the provisions of the federal RCRA cradle-to-grave waste management system in California. It also provides for the designation of California-only hazardous waste and development of standards that are equal to or in some cases more stringent than federal requirements. The Hazardous Waste Control Act lists 791 chemicals and approximately 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identifies some wastes that cannot be disposed of in landfills.

California Health and Safety Code

In California, the handling and storage of hazardous materials are regulated by Division 20, Chapter 6.95 of the California Health and Safety Code. Under Sections 25500–25543.3, facilities handling hazardous materials are required to prepare a Hazardous Materials Business Plan. Hazardous Materials Business Plans contain basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of in the state.

Chapter 6.95 of the Health and Safety Code establishes minimum statewide standards for Hazardous Materials Business Plans. Each business shall prepare a Hazardous Materials Business Plan if that business uses, handles, stores a hazardous material (including hazardous waste), or an extremely hazardous material in disclosable quantities greater than or equal to the following:

- 500 pounds of a solid substance
- 55 gallons of a liquid
- 200 cubic feet of compressed gas
- A hazardous compressed gas in any amount (highly toxic with a threshold limit value of 10 parts per million or less)
- Extremely hazardous substances in threshold-planning quantities

In addition, in the event that a facility stores quantities of specific acutely hazardous materials above the thresholds set forth by the California Health and Safety Code, facilities are also required to prepare a Risk Management Plan and California Accidental Release Plan. The Risk Management Plan and Accidental Release Plan provide information on the potential impact zone of a worst-case release and require plans and programs designed to minimize the probability of a release and to mitigate potential impacts. Based on the Project land uses (i.e., industrial, commercial), a Hazardous Materials Business Plan may be required (e.g., due to storage of pool chemicals); however, it is unlikely that a Risk Management Plan and Accidental Release Plan would be required, due to a probable lack of acutely hazardous materials. The San Bernardino County Fire Department Hazardous Materials Division would make a final determination regarding the appropriate plan(s) to be completed.

Occupational Safety and Health Act

The California Occupational Safety and Health Administration (Cal/OSHA) is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal/OSHA standards are generally more stringent than federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR 337–340). The regulations specify requirements for employee training, availability of safety equipment, accident prevention programs, and hazardous substance exposure warnings.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program was created in 1993 by Senate Bill 1082 to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities of environmental and emergency management programs. The program is implemented at the local government level by CUPAs. In the City of Hesperia, the San Bernardino County Fire Department is the CUPA. The program consolidates, coordinates, and makes consistent the following hazardous materials and hazardous waste programs (program elements):

- Hazardous Waste Generation (including on-site treatment under Tiered Permitting)
- Aboveground Petroleum Storage Tanks (only the spill prevention, control, and countermeasure [SPCC] plan)
- USTs
- Hazardous Material Release Response Plans and Inventories
- California Accidental Release Prevention Program
- Uniform Fire Code Hazardous Material Management Plans and Inventories

Wildland Fire

California Government Code

California Government Code Sections 51175 through 51189 provide guidance for classifying lands in California as fire hazard areas and requirements for management of property within those lands. CAL FIRE is responsible for classifying FHSZs based on statewide criteria, and makes the information available for public review. Further, local agencies must designate, by ordinance, Very High FHSZs within their jurisdiction based on the recommendations of CAL FIRE.

Section 51182 sets forth requirements for maintaining property within fire hazard areas, such as defensible space, vegetative fuels management, and building materials and standards. Defensible space around structures in fire hazard areas must consist of 100 feet of fuel modification on each side of a structure, but not beyond the property line unless findings conclude that the clearing is necessary to significantly reduce the risk of structure ignition in the event of a wildfire. Clearance on adjacent property shall only be conducted following written consent by the adjacent owner. Further, trees must be trimmed from within 10 feet of the outlet of a chimney or stovepipe, vegetation near buildings must be maintained, and roofs of structures must be cleared of vegetative materials. Exemptions may apply for buildings with an exterior constructed entirely of nonflammable materials.

California Code of Regulations

Title 14 Natural Resources

Title 14, Division 1.5, Chapter 7, Subchapter 3, Fire Hazard, also sets forth requirements for defensible space if the distances specified above cannot be met. For example, options that have similar practical effects include noncombustible block walls or fences, 5 feet of noncombustible material horizontally around the structure, installing hardscape landscaping or reducing exposed windows on the side of the structure with a less-than-30-foot setback, or additional structure hardening such as those required in the California Building Code (CBC), California Code of Regulations Title 24, Part 2, Chapter 7A.

Title 24 California Building Standards Code

California Building Code

Part 2 of Title 24 contains the CBC. Chapter 7A of the CBC regulates building materials, systems, and/or assemblies used in the exterior design and construction of new buildings located within a fire hazard area. Fire hazard areas as defined by the CBC include areas identified as a FHSZ within a State Responsibility Area or a wildland–urban interface fire area. The purpose of Chapter 7A is to establish minimum standards for the protection of life and property by increasing the ability of structures located in a fire hazard area to resist the intrusion of flames or burning embers projected by a wildfire, and to contribute to a systematic reduction in structural losses from a wildfire. New buildings located in such areas must comply with the ignition-resistant construction standards outlined in Chapter 7A.

California Fire Code

Part 9 of Title 24 contains the CFC, which incorporates by adoption the International Fire Code with necessary California amendments. The purpose of this code is to establish the minimum requirements to safeguard the public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises, and to provide safety and assistance to firefighters and emergency responders during emergency operations. Chapter 49 of the CFC contains minimum standards for development in the wildland–urban interface and fire hazard areas.

The CFC and Office of the State Fire Marshal provide regulations and guidance for local agencies in the development and enforcement of fire safety standards. The CFC is updated and published every 3 years by the California Building Standards Commission. The 2019 CFC took effect on January 1, 2020. The City has adopted the 2019 CFC with local amendments.

California Public Resources Code

California Public Resource Code, Section 4290, requires minimum fire safety standards related to defensible space that are applicable to residential, commercial, and industrial building construction in State Responsibility Area lands and lands classified and designated as Very High FHSZs. These regulations include road standards for fire apparatus access, standards for signs identifying roads and buildings, fuel breaks and green belts, and minimum water supply requirements. It should be noted that these regulations do not supersede local regulations which equal or exceed minimum regulations required by the state.

California Public Resource Code, Section 4291, requires a reduction of fire hazards around buildings located adjacent to a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or land that is

covered in flammable material. It is required to maintain 100 feet of defensible space around all sides of a structure, but not beyond the property line unless required by state law, local ordinance, rule, or regulations. Further, California Public Resource Code, Section 4291 requires the removal of dead or dying vegetative materials from the roof of a structure, and trees and shrubs must be trimmed from within 10 feet of the outlet of a chimney or stovepipe. Exemptions may apply for buildings with an exterior constructed entirely of nonflammable materials.

Fire Hazard Severity Zones

CAL FIRE maps FHSZs based on fuel loading, slope, fire history, weather, and other relevant factors as directed by California Public Resources Code, Sections 4201–4204, and California Government Code Sections 51175–51189. FHSZs are ranked from moderate to very high, and are categorized for fire protection within a Federal Responsibility Area, State Responsibility Area, or Local Responsibility Area under the jurisdiction of a federal agency, CAL FIRE, or local agency, respectively. As shown in Figure 4.17-1, Fire Hazard Severity Zones, the Project site is located in a moderate FHSZ in the LRA (CAL FIRE 2008). The nearest very high FHSZ in the City is located approximately 8 miles south, and the nearest very high FHSZ in the SRA is located approximately 5 miles south. As shown in Figure 4.7-1, Fire Hazard Severity Zones, the Project site is located adjacent to SRA lands to the west and south, which are designated as moderate and high FHSZs, respectively.

California Strategic Fire Plan

The 2018 Strategic Fire Plan for California reflects CAL FIRE's focus on fire prevention and suppression activities to protect lives, property, and ecosystem services, and natural resource management to maintain the state's forests as a resilient carbon sink to meet California's climate change goals and to serve as important habitat for adaptation and mitigation. The Strategic Fire Plan for California provides a vision for a natural environment that is more fire resilient, buildings and infrastructure that are more fire resistant, and a society that is more aware of and responsive to the benefits and threats of wildland fire, all achieved through local, state, federal, tribal, and private partnerships (CAL FIRE 2018). Plan goals include the following:

1. Identify and evaluate wildland fire hazards and recognize life, property and natural resource assets at risk, including watershed, habitat, social and other values of functioning ecosystems. Facilitate the collaborative development and sharing of all analyses and data collection across all ownerships for consistency in type and kind.
2. Promote and support local land use planning processes as they relate to: (a) protection of life, property, and natural resources from risks associated with wildland fire, and (b) individual landowner objectives and responsibilities.
3. Support and participate in the collaborative development and implementation of local, county and regional plans that address fire protection and landowner objectives.
4. Increase fire prevention awareness, knowledge and actions implemented by individuals and communities to reduce human loss, property damage and impacts to natural resources from wildland fires.
5. Integrate fire and fuels management practices with landowner/land manager priorities across jurisdictions.
6. Determine the level of resources necessary to effectively identify, plan and implement fire prevention using adaptive management strategies.
7. Determine the level of fire suppression resources necessary to protect the values and assets at risk identified during planning processes.
8. Implement post-fire assessments and programs for the protection of life, property, and natural resource recovery.

Mutual Aid Agreements

The California Disaster and Civil Defense Master Mutual Aid Agreement, as provided by the California Emergency Services Act, provides statewide mutual aid between and among local jurisdictions and the state. The statewide mutual aid system exists to ensure that adequate resources, facilities, and other supports are provided to jurisdictions whenever resources prove to be inadequate for a given situation. Each jurisdiction controls its own personnel and facilities but can give and receive help whenever needed.

Local

City of Hesperia Municipal Code

Section 15.04.010 of the City's Municipal Code adopts the 2019 California Fire Code, which sets forth requirements for fire-safe construction, such as fire-resistive building materials, automatic fire sprinklers, fire hydrants and fire-flow.

City of Hesperia General Plan

The Safety Element of the General Plan identifies, establishes, and sets forth policies to address hazards within the municipality. Goals or policies related to hazards, hazardous materials, and wildfire in the General Plan include the following:

Goal SF-3 Reduce the risk of death, injury, property damage and economic loss due to vegetation and structure fires.

Policy SF-3.1 The City shall continue to require that all new habitable structures be designed in accordance with the most recent California Fire Code with local amendments adopted by the City, including the use of fire sprinklers in residential structures.

Policy SF-3.2 The City will continue to conduct regular inspections of parcels throughout the city, and will direct property owners to bring their property into compliance with fire inspection standards. This includes enforcing the weed abatement and notification program, to reduce the potential for vegetation fires to occur in vacant or poorly maintained lots, and encouraging homeowners to follow fire-safe practices, including maintaining a fire-safe landscape, and keeping combustibles (such as fire wood) a safe distance away from all structures.

Policy SF-3.7 The City, in cooperation with the San Bernardino County Fire Department, will ensure, to the maximum extent possible, that fire services, such as firefighting equipment and personnel, infrastructure, and response times, are adequate for all sections of the City. To that end, the City will continue to regularly evaluate specific fire hazard areas, and adopt reasonable safety standards, such as adequacy of nearby water supplies, fire-retardant roofing materials, fire-equipment accessible routes, clarity of addresses, street signage, and street maintenance.

Policy SF-3.10 The City will adopt the most recent version of the Wildland-Urban Interface Code and Chapter 7A of the California Building Code for use in the City where the Insurance Services Offices (ISO) number exceeds 5 (greater than 5).

Goal SF-4 Reduce the potential for hazardous materials contamination in Hesperia.

Policy SF 4.1 The City, in cooperation with the San Bernardino County Fire Department, Hazardous Materials Division, will continue to enforce disclosure laws that require all users, generators, and transporters of hazardous materials and wastes to clearly identify the materials that they store, use or transport, and to notify the appropriate City, county, state and federal agencies of a change in quantity or type of materials, and in the event of a violation.

Policy SF 4.2 The City, in cooperation with the San Bernardino County Fire Department, will ensure that they can continue to respond safely and effectively to a hazardous materials incident in the City, whether it is a spill at a permitted facility, or the result of an accident along a section of the freeway or railroads that extend across the City. To do this, the City will continue to coordinate with regional providers of emergency services, including the County's Fire and Sheriff Departments, to ensure that all residents, workers, and visitors to Hesperia are protected from exposure to hazardous materials and wastes.

Policy SF 4.3 The City will identify roadways along which hazardous materials are routinely transported. If critical facilities, such as schools, medical facilities, child care centers or other facilities with special evacuation needs are located along these routes, the City, together with these facilities, will identify emergency response plans that can be implemented in the event of a roadway accident nearby that results in the unauthorized release of hazardous materials.

Policy SF 4.4 The City will continue to reduce or eliminate the use of hazardous materials by using instead non-toxic, safer alternatives that do not pose a threat to the environment, or buying and using only the smallest amount of a hazardous substance to get the intended job done. The City will encourage residents and businesses in the City to do the same.

Policy SF 4.5 Proposed new facilities that will be involved in the production, use, storage, transport or disposal of hazardous materials will not be allowed within the 100-year floodplain, or near existing land uses that may be adversely impacted by such activities. Conversely, new sensitive facilities (like schools, child care centers, and nursing homes) will not be allowed to be located near existing sites that use, store, or generate hazardous materials.

Policy SF 4.6 The City will continue to support the operation of programs and recycling centers that accept hazardous substances, such as paint, paint thinner, used waste oil, etc., such as the City's Drop-Off facility.

Policy SF 4.7 The City will work with the Hesperia Water District to monitor the potential presence of perchlorate in well water. If perchlorate continues to be detected at measurable concentrations, programs to find and eradicate the source of this contaminant, and to clean up the perchlorate already in the water will have to be developed.

Erosion and Sediment Control Plan

For projects that would include soil disturbance during construction, project applicants must submit an Erosion and Sediment Control Plan for approval to the City of Hesperia. The City will not issue a grading or building permits until the Erosion and Sediment Control Plan for the Project is approved.

The purpose of the Erosion and Sediment Control Plan is to: (1) Identify potential pollutant sources that may affect the quality of stormwater runoff and prevent non-stormwater discharges from the construction site; (2) Document the BMPs that will be implemented to prevent, to the maximum extent practicable, construction site pollutants from leaving the site during all phases of construction; and (3) Document erosion control, sediment control, and good housekeeping BMPs that shall be implemented year-round as appropriate based on construction activities.

4.7.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to hazards, hazardous materials, and wildfire are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to the Project would occur if the Project would:

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 create a significant hazard to the public or the environment.
E. Be located within an airport land use plan, be within two miles of a public airport, and would 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.
H. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, substantially impair an adopted emergency response plan or emergency evacuation plan.
I. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, 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.
J. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, 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.
K. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, 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.
L. Result in a cumulatively considerable impact with regard to hazards, hazardous materials, or wildfire.

Thresholds C, D, E, and F were analyzed in the Initial Study (Appendix A) and were not carried forward for further analysis in this EIR. See Chapter 5, Effects Found Not To Be Significant, for additional detail.

4.7.4 Impacts Analysis

Threshold A: Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less-than-Significant Impact with Mitigation Incorporated. During construction, a variety of hazardous substances and wastes would be stored, used, and generated on the Project site, including fuels for machinery and vehicles, new and used motor oils, cleaning solvents, paints, and storage containers. Accidental spills, leaks, fires, explosions, or pressure releases involving hazardous materials represent a potential threat to human health and the environment if not properly treated. Provisions to properly manage hazardous substances and wastes during construction are typically included in construction specifications and are under the responsibility of the construction contractors. For example, construction contractors would be required to comply with Cal/OSHA regulations concerning the use of hazardous materials, including requirements for safety training, exposure warnings, availability of safety equipment, and preparation of emergency action/prevention plans. Adherence to the construction specifications and applicable regulations regarding hazardous materials and hazardous waste, including disposal, would ensure that construction of the Project would not create a significant hazard to the public or the environment during the construction phase of the Project.

Based on observed soil staining associated with on-site full and partially full motor oil canisters and used tire piles, shallow soil impacts may be encountered during Project construction. MM-HAZ-1 requires the removal and disposal of on-site tires and oil containers (e.g., retail motor oil containers and commercial oil drums) from the Project area in accordance with all applicable local, state, and federal guidelines. For excavation and grading activities that occur in areas with the potential for residual contamination, a qualified environmental professional shall screen soils in the identified area prior to excavation and grading based on the nature of the potential contamination. In the event that potential contamination is encountered, the contamination shall be evaluated by a qualified environmental professional using the appropriate collection and sampling techniques as determined by the environmental professional based on the nature of the contamination. The nature and extent of contamination shall be determined and the appropriate handling, disposal, and/or treatment shall be implemented in accordance with applicable regulatory requirements.

Furthermore, adherence to all emergency response plan requirements set forth by the San Bernardino County Fire Department would be required throughout the duration of Project construction. Therefore, based on compliance with existing regulations and with incorporation of MM-HAZ-1, short-term construction impacts associated with the routine transport, use, or disposal of hazardous materials would be less than significant.

Upon completion of Project construction, the Project would involve the operation and maintenance of the industrial/warehouse facilities. Operation of the Project would likely involve the use of industrial-grade chemicals used in the day-to-day operation of the facilities as well as commercially available cleaning products, landscaping chemicals and fertilizers, and various other commercially available products. While these materials could be stored on the Project site, storage would be required to comply with the guidelines established by the manufacturer's recommendations. Consistent with federal, state, and local requirements, the transport, removal, and disposal of hazardous materials from the Project site would be conducted by a permitted and licensed service provider. Any

handling, transport, use, or disposal must comply with all applicable federal, state, and local agencies and regulations, including the USEPA, DTSC, CAL/OSHA, RCRA, and the San Bernardino County Fire Department.

Although the future tenants are not known yet, in the event that a future tenant's operations require them to transport, use, or dispose of quantities of hazardous materials identified by the state, pursuant to the Health and Safety Code and in accordance with the San Bernardino County Fire Department's CUPA requirements, the owner/operator must complete and submit a Hazardous Materials Business Plan to the California Environmental Reporting System. A Hazardous Materials Business Plan is a document containing detailed information on the inventory of hazardous materials at a facility; emergency response plans and procedures in the event of a reportable release or threatened release of a hazardous material; training for all new employees and annual training, including refresher courses, for all employees in safety procedures in the event of a release or threatened release of a hazardous material; and a site map that contains north orientation, loading areas, internal roads, adjacent streets, storm and sewer drains, access and exit points, emergency shutoffs, evacuation staging areas, hazardous material handling and storage areas, and emergency response equipment. The Hazardous Materials Business Plan intends to provide basic information necessary for use by first responders to prevent or mitigate damage to the public health and safety and the environment from a release or threatened release of hazardous materials, as well as to satisfy federal and state Community Right-To-Know laws. Therefore, long-term operational impacts associated with the routine transport, use, or disposal of hazardous materials would be less than significant.

In summary, the Project would result in potentially significant impacts with regard to the creation of a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. MM-HAZ-1 would be implemented, and Project impacts would be less than significant with mitigation incorporated.

Threshold B: Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less-than-Significant Impact. During construction, hazardous materials such as fuels and lubricants would be transported to and used on site in construction vehicles and equipment. Construction waste is a potential pollutant source of concern for the Oro Grande Wash and Mojave River, which are located hydrologically down gradient of the Project site. Concrete, paint, and other materials that are also used on construction sites are major contributors to polluted habitats, in the event that such materials exit a construction site. However, the potential for the use of these materials to result in significant hazards to the public or the environment would be low for the reasons described below.

The Project contractor and construction crews would be required to comply with all applicable regulations governing the storage, handling, and disposal of hazardous materials and waste. As discussed in Section 4.8, Hydrology and Water Quality, prior to issuance of grading permits, the City of Hesperia requires the submittal, review, and approval of an Erosion and Sediment Control Plan. Implementation of an Erosion and Sediment Control Plan would ensure that construction-related BMPs are enacted to prevent, to the maximum extent practicable, construction site pollutants from leaving the site during all phases of construction. The Project would also be required to comply with the NPDES MS4 Permit, including the regulation of surface water quality. Under the NPDES MS4 Permit, the development of 1.0 acre or more of land must file a notice of intent with the SWRCB to comply with the state NPDES General Construction Permit. Implementation of this Permit would require the development of a site-specific Stormwater Pollution Prevention Permit (SWPPP) for construction activities. The SWPPP is required to identify BMPs that protect stormwater runoff and ensure avoidance of substantial degradation of water quality. Typical BMPs that could be incorporated into the SWPPP to minimize the off-site runoff of pollutants would include the following:

- Diverting off-site runoff away from the construction site

- Vegetating landscaped/vegetated swale areas as soon as feasible following grading activities
- Using drop inlet protection (filters and sandbags or straw wattles), with sandbag check dams within paved areas
- Implementing specifications for construction waste handling and disposal
- Using contained equipment wash-out and vehicle maintenance areas
- Training, including for subcontractors, on general site housekeeping

Incorporation of required BMPs would help control the use of hazardous substances during construction and would minimize the potential for such substances to leave the site. As a result, there would be reduced potential for the public and environment to be exposed to hazardous chemicals and materials as a result of construction activities. The implementation of applicable construction BMPs and adherence to applicable hazardous materials and waste regulations would minimize the risk and exposure of the release of hazardous materials to the public and environment to less than significant levels.

Based on the Phase I ESA Report, on-site RECs were identified, consisting of motor oil containers and used automotive tires along the east and northwest portions of the Project site. Multiple (50+) 5-gallon buckets and 5-quart jugs labeled as containing motor oil were observed in these areas. The containers were observed to be full, partially full, or empty and several areas of stained soil were observed stemming from these containers.

Project grading and excavation could encounter soils impacted by petroleum hydrocarbons, resulting in potentially significant health and safety impacts to construction personnel, as well as potential off-gassing of petroleum from impacted soil excavations and associated soil stockpiles. However, MM-HAZ-1 would require the removal and disposal of on-site tires and oil containers (e.g., retail motor oil containers and commercial oil drums) from the Project area in accordance with all applicable local, state, and federal guidelines. For excavation or grading activities that occur in areas with the potential for residual contamination, a qualified environmental professional shall screen soils in the identified area prior to excavation and grading activities based on the nature of the potential contamination. If potential contamination is encountered, the contamination shall be evaluated by a qualified environmental professional using the appropriate collection and sampling techniques as determined by the environmental professional based on the nature of the contamination. The nature and extent of contamination shall be determined and the appropriate handling, disposal, and/or treatment shall be implemented in accordance with applicable regulatory requirements. Therefore, based on compliance with applicable regulations and with the incorporation of MM-HAZ-1, short-term construction impacts associated with creating a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions would be less than significant.

Upon completion of Project construction, routine operation of the Project would involve likely use industrial grade chemicals used in the operation of the facilities as well as commercially available cleaning products, landscaping chemicals and fertilizers, and various other commercially available products. These materials would be used for the day-to-day operation of the facilities and may involve the use of hazardous materials.

As previously discussed in Threshold A, the future tenants are not known yet. In the event that a future tenant's operations require them to transport, use, or dispose of quantities of hazardous materials identified by the state, pursuant to the Health and Safety Code and in accordance with the San Bernardino County Fire Department's CUPA requirements, the owner/operator must complete and submit a Hazardous Materials Business Plan to California Environmental Reporting System. Completion of a Hazardous Materials Business Plan would ensure that an emergency spill response and containment plan is in place in the event of hazardous spills.

Furthermore, the use, storage, and transport of hazardous materials and wastes would be subject to applicable federal, state, and local health and safety regulations (e.g., RCRA and the Hazardous Waste Control Act "cradle to grave" requirements). All hazardous materials generated and/or used on the Project site would be managed in accordance with all relevant federal, state, and local laws, including the California Hazardous Waste Control Law (California Health and Safety Code Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (22 CCR 4.5). Moreover, compliance with CAL/OSHA workplace and work practices requirements would avoid the exposure of persons and the environment to hazardous materials.

In addition to the regulations and practices described above, the following requirements would apply to storage and handling of hazardous wastes at the Project site: (1) hazardous materials are required to be stored in designated areas designed to prevent accidental release in accordance with state law, including the California Hazardous Waste Control Act and the California Health and Safety Code; (2) CAL/OSHA requirements prescribe safe work environments for workers working with materials that present a moderate explosion hazard, high fire or physical hazard, or health hazard; (3) federal and state laws related to the storage of hazardous materials would be complied with to maximize containment and provide for prompt and effective clean-up in case of an accidental release; and (4) Hazardous Materials Inventory and Response Planning Reports would be filed with the City in accordance with Unified Program Permit requirements.

Compliance with applicable regulations involving hazardous materials during operation would ensure that such materials are transported, used, stored, and disposed of in a manner that minimizes the potential for upset and accident conditions resulting in the release of hazardous materials into the environment. Due to the existing regulations that are required, it is not expected that the Project would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions. Therefore, based on compliance with applicable regulations, long-term operational impacts associated with creating a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions would be less than significant.

In summary, the Project would result in potentially significant impacts with regard to the creation of 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. MM-HAZ-1 would be implemented, and Project impacts would be less than significant with mitigation incorporated.

Threshold G: Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

Less-than-Significant Impact. Construction of the Project would introduce potential ignition sources to the Project site, including the use of heavy machinery and the potential for sparks during welding activities or other hot work. However, the Project would be required to comply with City and state requirements for fire safety practices, to reduce the possibility of fires during construction activities. Further, vegetation would be removed from site prior to the start of construction. Adherence to City and state regulatory standards during Project construction would reduce the risk of wildfire ignition and spread during construction activities. Therefore, short-term construction impacts associated with exposing people or structures to a significant risk of loss, injury, or death involving wildland fires would be less than significant.

Upon completion of Project construction, as discussed further below, with adherence to the City's Municipal Code, the low ignitability of the proposed structures, implementation of fire-resistant, and irrigated landscaping, the Project would not facilitate wildfire spread or exacerbate wildfire risk or expose people or structures, indirectly or directly, to significant wildfire risk. Further, given that surrounding off-site fuels consist of moderately spaced

vegetation, and as shown in Figure 4.7-2, Wildfire History, wildfires in the immediately surrounding area are not common, and it is unlikely that Project occupants would be exposed to the uncontrolled spread of a wildfire or prolonged pollutant concentrations in the event of a wildfire. It is not anticipated that the Project, due to slope, prevailing winds, and other factors, would exacerbate wildfire risks or expose Project occupants to pollutant concentrations from a wildfire, the uncontrolled spread of a wildfire, or significant risks associated with wildfires. Therefore, long-term operational impacts associated with exposing people or structures to a significant risk of loss, injury, or death involving wildland fires would be less than significant.

Threshold H: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?

Less-than-Significant Impact. The Project Site is not located in SRA lands or lands classified as very high FHSZ. However, SRA lands classified as moderate and high FHSZs are located immediately west and south of the Project Site, respectively. As further discussed in Section 4.10, Transportation, access to the Project Site would be designed such that adequate emergency access would be provided and in accordance with emergency apparatus access requirements. Access to the Project Site would be provided via four driveways, as depicted on Figure 3-6, Site Plan:

- Driveway 1 on Phelan Road – 50-feet-wide, right-in/right-out (Passenger cars and trucks) driveway with stop sign
- Driveway 2 on Yucca Terrace Drive – 50-feet-wide, full access (Passenger cars and trucks) driveway with stop sign
- Driveway 3 on Yucca Terrace Drive – 50-feet-wide, full access (Passenger cars and trucks) driveway with stop sign
- Driveway 4 on Phelan Road – 60-feet-wide, full Access (Passenger cars and trucks) driveway and signalized intersection. This driveway would provide reciprocal access with a future development adjacent to the Project site

The City of Hesperia Emergency Preparedness Program serves as a resource for residents and businesses to plan for emergencies. Further, the City's Hazard Mitigation Plan includes resources and information to assist City residents, public and private sector organizations, and others interested in participating in planning for natural hazards (City of Hesperia 2010b). The Hazard Mitigation Plan identifies wildfire as one of the natural hazards faced by the City, and establishes the goal to "reduce the risk of death, injury, property damage and economic loss due to vegetation and structure fires". As they relate to the Project, the mitigation objectives and actions outlined in the Hazard Mitigation Plan would require that the Project be designed and constructed in accordance with the most recent California Building and Fire Codes (and local amendments) and regular fire safety inspections would ensure that the Project is in compliance with fire inspection standards and weed abatement to reduce the potential for vegetation fires (City of Hesperia 2010b). The Project would comply with all City and state requirements related to fire safety, and the Project would comply with all requirements outlined in the Hazard Mitigation Plan.

In the event of a wildfire, the City, in cooperation with the San Bernardino Fire Department would utilize the City's public notification systems and provide evacuation instructions. Exhibit SF-4 in the City's General Plan identifies potential shelters and emergency evacuation routes in the City. The nearest potential evacuation route to the Project Site is Phelan Road/Main Street, which is a major east-west arterial that forms the southern Project boundary (City of Hesperia 2010a). Additionally, the Project Site is located in the western portion of the City, which sits in a major transportation corridor formed by U.S. Highway 395 and Interstate 15, providing a direct connection to other major interstates and highways (City of Hesperia 2010b). The Project would not impede access to Phelan

Road/Main Street or otherwise impact the functionality of the road to operate as a potential evacuation route. The Project would construct two access driveways (Driveway 1 and Driveway 4) into the Project Site from Phelan Road, as well as off-site circulation improvements that would improve operations on surrounding roads.

Further, as shown in Figure 4.7-2, Wildfire History, wildfires in the City and surrounding area typically start in the mountains or foothills to the south. In the event that prevailing winds fan a fire so that it moves north into the wildland-urban interface, evacuation of the potentially affected communities may be required. In general, evacuees would take roads leading north, toward the more developed areas of the City. Several of these roads are identified on Exhibit SF-3, and include Summit Valley Road, Santa Fe Avenue, 11th Avenue, Maple Avenue, and the I-15 (City of Hesperia 2010a). With compliance with City and SBCFD requirements, the Project would not conflict with or impair implementation of the Hazard Mitigation Plan, nor would the Project impair use of potential evacuation routes in the City, and impacts would be less than significant.

Threshold I: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project, due to slope, prevailing winds, and other factors, would the Project exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less-than-Significant Impact. The Project Site is not located in SRA lands or lands classified as very high FHSZ. The nearest very high FHSZ in the City is located approximately 8 miles south, and the nearest very high FHSZ in the SRA is located approximately 5 miles south. However, SRA lands classified as moderate and high FHSZs are located immediately west and south of the Project Site, respectively (see Figure 4.7-1, Fire Hazard Severity Zones). The Project could exacerbate wildfire risk and expose Project occupants to pollutant concentrations from a wildfire or the uncontrollable spread of a wildfire if the Project, combined with the climatic, topographic, vegetation, weather conditions, and other factors, would increase the risk of a wildfire occurring and increase the severity of such an occurrence.

Short-Term Construction Impacts

Construction of the Project would introduce potential ignition sources to the Project site, including the use of heavy machinery and the potential for sparks during welding activities or other hot work. However, the Project would be required to comply with City and state requirements for fire safety practices, to reduce the possibility of fires during construction activities. Further, vegetation would be removed from site prior to the start of construction. Adherence to City and state regulatory standards during Project construction would reduce the risk of wildfire ignition and spread during construction activities. Thus, short-term construction impacts associated with exacerbating wildfire risk would be less than significant.

Long-Term Operational Impacts

Slope

As previously discussed in Section 4.7.1, Existing Conditions, the Project Site and surrounding area are relatively flat. The Project Site contains slopes ranging from 2% to 7%, with the steepest slopes in the western portion of the Site where the topography slopes downward into the drainage/wash area along the Los Angeles Bureau of Power and Light Road utility corridor. Upon Project implementation, the portions of the Site that would be developed would be graded to a flat, level surface. The Project Site and surrounding area do not contain slopes typical of exacerbating wildfire risk, and once developed, the Project would not result in steep slopes typical of exacerbating wildfire risk.

Prevailing Winds

Prevailing winds are winds that blow from a single direction over a specific area. As previously discussed in Section 4.7.1, the predominant average hourly wind speed and direction in the City varies throughout the year. From February through November the wind primarily blows from the west, and from the north from November through February. Average wind speeds vary from approximately 6.4 mph to 7.5 mph, with wind gusts reaching up to 14 mph during the windiest time of the year (January through July) (Weather Spark 2020). High wind velocities that could exacerbate wildfire risk are generally associated with downslope, canyon, and Santa Ana winds. As discussed above, Project site does not include topography that would create unusual weather conditions. Further, as shown in Figure 4.7-2, Wildfire History, wildfires in the City and surrounding area typically start in the mountains or foothills to the south. Given that the prevailing wind direction during summer months is from the west, it is not anticipated that prevailing winds would exacerbate wildfire risks on site.

Other Factors

Other factors such as vegetation, building materials, setbacks and proposed on-site activities can also contribute to wildfire risk.

Vegetation

The vegetation cover on site and in the surrounding area consists of Joshua Tree Woodland. Vegetation in the Project area is generally spaced out, which inhibits fire spread (City of Hesperia 2010b). Further, the Project would convert vacant land with moderate vegetation cover into development consisting of large warehouse buildings, paved surface parking and maintained landscape areas. The proposed landscaping would be implemented according to Chapter 16.20 of the City's Municipal Code, and would include maintained landscaped areas consisting of vegetation found in the surrounding desert environment. Highly flammable vegetation would not be used in Project landscaping.

Building Materials and Setbacks

Project buildings would be required to comply with the City's Municipal Code, which adopts the 2019 CFC and includes provisions for fire safety and fire-resistive construction. Further, compliance with required setbacks would allow for space between Project buildings and off-site vegetation. Studies indicate that given certain assumptions (e.g., 10 meters of low-fuel landscape, no open windows), wildfire is unlikely to spread to buildings unless the fuel and heat requirements of the building are sufficient for ignition and continued combustion (Alexander et al. 1998; Cohen 1995). Construction materials and methods can prevent or minimize ignitions. According to previous research, post-fire assessments conducted in San Diego County indicate that updated building codes have shown success in preventing structural loss (IBHS 2008). The distance between a wildfire that is consuming wildland fuel and a building is the primary factor for structure ignition (not including burning embers) (Cohen 2000). Low-ignitability buildings provide the option of reducing the wildland fire threat to structures without extensive wildland fuel reduction. The Project would be required to comply with construction methods outlined in the City's Municipal Code, the CFC and CBC, which specify requirements for materials and construction methods for fire safety. The proposed building materials for Project structures include concrete, metal, aluminum entrance front framing, glass and other fire-resistant materials. If structures have a sufficiently low ignitability, such as the Project's structures, buildings can survive exposure to wildfire without major fire destruction.

Proposed Activities

Project activities would introduce new potential sources of ignition to the Project site. The Project would support a variety of activities associated with the three industrial/warehouse buildings, including the ingressing and egressing of passenger vehicles and trucks, the loading and unloading of trucks with designated truck courts/loading areas, and the internal and external movement of materials around the Project site via forklifts, pallet jacks, and similar equipment. In addition, the office space would support general internal office activities related to the industrial/warehouse uses. However, proposed activities do not consist of highly flammable activities typical of exacerbating fire risk, such as welding or other hot work. Given that the proposed use would not exacerbate fire risk and given that vegetation on site would consist of fire-resistant and irrigated landscaping, the likelihood of a fire starting on site and spreading to off-site areas would be minimal.

Summary

With adherence to the City's Municipal Code, the low ignitability of the proposed structures, and implementation of fire-resistant, irrigated landscaping, the Project would not facilitate wildfire spread or exacerbate wildfire risk or expose people or structures, indirectly or directly, to significant wildfire risk. Further, given that surrounding off-site fuels consist of moderately spaced vegetation, and as shown in Figure 4.7-2, Wildfire History, wildfires in the immediately surrounding area are not common, and is unlikely that Project occupants would be exposed to the uncontrolled spread of a wildfire or prolonged pollutant concentrations in the event of a wildfire. It is not anticipated that the Project, due to slope, prevailing winds, and other factors, would exacerbate wildfire risks or expose Project occupants to pollutant concentrations from a wildfire, the uncontrolled spread of a wildfire, or significant risks associated with wildfires, and impacts would be less than significant.

Threshold J: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project 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?

Less-than-Significant Impact. The Project involves the development of an undeveloped site with three industrial/warehouse buildings with associated office spaces, surface parking, and loading areas. The Project would include installation and maintenance of associated infrastructure including driveways and surface parking, connections to service utilities (e.g., water, wastewater, stormwater drainage, electric power, natural gas, and telecommunications services). The majority of the associated infrastructure and utility connections would occur on site or adjacent to the site and would not result in off-site environmental impacts or exacerbate wildfire risk. However, the Project would also include off-site improvements and utility connections. In particular, the Project would include installation of new and upsizing of existing domestic water lines, storm drain lines, and sewer lines in the Project vicinity (collectively, the Off-Site Storm Drain Alignment, the Off-Site Sewer Alignment, and the Off-Site Water Alignment are referred to as the Off-Site Utilities Alignments). The Project would also include off-site circulation improvements, such as street improvements on Yucca Terrace, along Phelan road and a portion of U.S. Highway 395.

Given that the activity of connecting utilities from their current locations to the Project site and the new off-site improvements would require ground disturbance and the use of heavy machinery associated with trenching, the installation of these utility service lines could potentially result in temporary or ongoing impacts to the environment and could exacerbate wildfire risk by introducing new potential sources of ignition, such as the use of heavy machinery, welding, or other hot work. However, as previously discussed, vegetation would be removed from site prior to the start of construction and the site would be graded to a flat, level surface, which would reduce the

likelihood of fire ignition during installation and connection of utilities. In accordance with MM-HAZ-1, all refuse and debris, which could contain potentially flammable material, would be removed from site prior to issuance of a grading permit. Further, the Off-Site Utilities Alignments would not be located in a high fire hazard area.

The installation and maintenance of roads, service utilities, drainage and water quality improvements, and vegetation removal are part of the Project analyzed herein. As such, any potential temporary or ongoing environmental impacts related to these components of the Project have been accounted for and analyzed in this EIR as part of the impact assessment conducted for the entirety of the Project. Additionally, the Project would be required to comply with all regulatory requirements and mitigation measures outlined within this EIR for the purposes of mitigating impacts associated with trenching, grading, site work, and the use of heavy machinery. No adverse physical effects specifically related to wildfire or beyond those already disclosed throughout this EIR would occur as a result of implementation of the Project's associated infrastructure. Therefore, the installation and maintenance of associated infrastructure would not exacerbate wildfire risk or result in impacts to the environment beyond those already disclosed in this EIR, and impacts would be less than significant.

Threshold K: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project 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?

Less-than-Significant Impact. The Project site is located within the Mojave River Watershed. The Mojave River is the primary geologic or hydrologic feature in the watershed, and is primarily fed by precipitation and snowmelt in the San Bernardino Mountains. The Mojave River is located approximately 8.4 miles east of the Project site. The Project site is not within areas mapped as susceptible to subsidence, landslides, or liquefaction. As further discussed in Section 4.8, the Project site is located in Zone X, an area of minimal flood hazard (FEMA n.d.). This area is higher in elevation than the 0.2% annual chance flood (i.e., 500-year flood). Further, the Project site and surrounding area consist of relatively flat land that is not typically susceptible to landslides or downslope or downstream flooding. Although internal drainage patterns would be somewhat altered as a result of Project development, the Project would maintain adequate stormwater conveyance would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site. Further, according to available wildfire history (see Figure 4.7-2, Wildfire History), wildfires have not burned onto or adjacent to the Project site, precluding the risk of post-fire slope instability. Therefore, due to the proposed grading of the site, the relatively flat surrounding lands, and the fact that the site would be developed and paved, the likelihood for downslope or downstream flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes would be minimal, and impacts would be less than significant.

Threshold L: Would the Project result in cumulatively considerable impacts with regard to hazards, hazardous materials, or wildfire?

Hazards and Hazardous Materials

Less-than-Significant Impact with Mitigation Incorporated. The geographic scope of the cumulative hazards and hazardous materials analysis is the immediate Project area, including surrounding land uses and other nearby properties. Adverse effects of hazards and hazardous materials tend to be localized; therefore, impacts from nearby projects would be limited, if any, and the Project site would be primarily affected by Project activities.

During construction, hazardous materials such as fuels and lubricants would be transported to and used on site in construction vehicles and equipment. In addition, Project excavations could encounter shallow soil contaminants

as a result of on-site used motor oil containers and tires. These contaminants, if improperly handled, could expose the public environment to pollutants. However, water quality enhancement components of the Project, including the implementation of an Erosion and Sediment Control Plan, a SWPPP, stormwater BMPs, and MM-HAZ-1, would minimize the potential release of construction-related pollutants on and off site.

Post-development, routine operation of the Project would include the use of various hazardous materials, including chemical reagents, solvents, fuels, paints, and cleansers. These materials would be used for day-to-day operations as well as building and landscaping maintenance. However, compliance with applicable regulations involving hazardous materials during operation would ensure that such materials are transported, used, stored, and disposed of in a manner that minimizes the potential for upset and accident conditions resulting in the release of hazardous materials into the environment. In addition, the owner/operator must complete and submit a Hazardous Materials Business Plan to the California Environmental Reporting System. This would ensure that in the event that an emergency spill response and containment plan is in place in the event of hazardous spills. As such, it is not expected that the Project would create a significant hazard to the public or the environment through routine operations or reasonably foreseeable upset and accident conditions or result in the release or exposure of hazardous materials into the environment. Therefore, cumulative hazards and hazardous materials impacts would be less than significant.

Wildland Fire

Less-than-Significant Impact. The cumulative context considered for wildfire impacts is San Bernardino County, and more specifically, the Mojave River watershed, which encompasses 4,500 square miles. As discussed in Section 4.7.1, CAL FIRE has mapped areas of fire hazards in the state based on fuels, terrain, weather, and other relevant factors. As described above, the Project site is located in a moderate FHSZ, but is adjacent to SRA lands designated as moderate and high FHSZs. The Project, combined with other projects in the region, would increase the population and/or activities and potential ignition sources in the area, which may increase the potential of a wildfire and increase the number of people and structures exposed to risk of loss, injury, or death from wildfires. Individual projects located within the County would be required to comply with applicable fire and building codes, which have been increasingly strengthened as a result of severe wildfires that have occurred in the last two decades. The fire and building codes include fire prevention and protection features that reduce the likelihood of a fire igniting in a specific project and spreading to off-site vegetated areas. Further, any related projects located in fire hazard areas would be required to comply with vegetation clearance requirements, as outlined in the applicable fire and building codes. These codes also protect projects from wildfires that may occur in the area through implementation of brush management and fuel management zones, ensuring adequate water supply, preparation of fire protection plans, and other measures.

The Project area is relatively flat, and it is not anticipated that related projects would combine to result in significant wildfire impacts related to slope, prevailing winds, downstream flooding or landslide, slope instability, or drainage changes. Further, all related projects would be required to avoid conflict with the City's Emergency Preparedness Plan and potential emergency evacuation routes in the area. The applicable Fire and Building Codes, along with Project -specific needs assessments and fire prevention plan requirements, ensure that every project approved for construction includes adequate emergency access. Roads for all proposed projects are required to meet minimum widths, have all-weather surfaces, and be capable of supporting the imposed loads of responding emergency apparatus. The Project and all other future development projects in the service area would be subject to review by the SBCFD and would be required to comply with the County Fire Code and other relevant County Code requirements and other applicable local codes (e.g., City of Hesperia Municipal Code) and regulations related to fire safety, building construction, access, fire flow, and fuel modification. Therefore, because all projects are required to comply with these requirements, cumulative impacts related to increased wildfire hazards and emergency response and access would be less than significant.

4.7.5 Mitigation Measures and Level of Significance After Mitigation

Threshold A: Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

The Project would result in potentially significant impacts with regard to the creation of a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. MM-HAZ-1 would be implemented, and Project impacts would be **less than significant with mitigation incorporated.**

MM-HAZ-1 Prior to the issuance of a grading permit, the Project Applicant shall retain a qualified environmental specialist to remove and dispose of all refuse located on the Project site, including but not limited to, the illegally-dumped tires and oil containers currently found on site. The removal, transport, and disposal of refuse shall be done in accordance with all applicable local, state, and federal guidelines related to hazardous materials handling. Prior to the removal of refuse deposits from the site, the environmental specialist shall inspect each refuse pile for indications that the refuse may contain – or may have once contained – hazardous materials, including, but not limited to, motor oil, solvents, paints, and/or other petroleum products. In addition, the environmental specialist shall inspect the soils surrounding each refuse deposit for evidence of any contamination (staining) or volatilization of contaminants (odors).

If contamination indicators are identified, work shall stop in the immediate proximity of the potential contamination. The Project applicant and/or their construction contractor shall be responsible for engaging a qualified environmental specialist to design and perform an investigation to verify the presence and extent of contamination on the Project site. Subsurface investigation shall determine appropriate worker protection and hazardous material and disposal procedures appropriate for the Project site. Contaminated soil or groundwater determined to be hazardous shall be removed by personnel who have been trained through the Occupational Safety and Health Administration–recommended 40-hour safety program with an approved plan for groundwater extractions, soil excavation, control of contaminant releases to the air, and off-site transport or on-site treatment.

Threshold B: Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

The Project would result in potentially significant impacts with regard to the creation of 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. MM-HAZ-1 would be implemented, and Project impacts would be **less than significant with mitigation incorporated.**

Threshold G: Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

The Project would result in **less-than-significant impacts** associated with exposing people or structures to a significant risk of loss, injury, or death involving wildland fires. No mitigation is required.

Threshold H: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?

The Project would not conflict with or impair implementation of the Hazard Mitigation Plan, nor would the Project impair use of potential evacuation routes in the City, and impacts would be **less than significant**.

Threshold I: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project, due to slope, prevailing winds, and other factors, would the Project exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

The Project would not, due to slope, prevailing winds, and other factors, exacerbate wildfire risks or expose Project occupants to pollutant concentrations from a wildfire, the uncontrolled spread of a wildfire, or significant risks associated with wildfires, and impacts would be **less than significant**. No mitigation is required.

Threshold J: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project 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?

The Project would result in **less-than-significant impacts** associated with the installation and maintenance of Project-associated infrastructure that may exacerbate wildfire risk or result in temporary or ongoing impacts to the environment**.** No mitigation is required.

Threshold K: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project 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?

The Project would result in **less-than-significant impacts** associated with the exposure of 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**.** No mitigation is required.

Threshold L: Would the Project result in cumulatively considerable impacts with regard to hazards, hazardous materials, or wildfire?

Hazards and Hazardous Materials

The Project would result in potentially significant cumulative impacts with regard to hazards and hazardous materials. MM-HAZ-1 would be implemented, and cumulative Project impacts would be **less than significant with mitigation incorporated.**

Wildland Fire

The Project would result in **less-than-significant cumulative impacts** associated with wildfire. No mitigation is required.

4.7.6 References Cited

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4.8 Hydrology and Water Quality

This section describes the existing hydrology and water quality conditions of the Project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the Hesperia Commerce Center II Project (Project).

In addition to the documents incorporated by reference (see Section 2.7, Documents Incorporated by Reference, of Chapter 2, Introduction, of this Environmental Impact Report), the following analysis is based, in part, on the following sources:

- *Phase I Environmental Site Assessment* prepared by Consolidated Consulting Group LLC in February 2017 (Appendix H)
- *Hesperia Commerce II Industrial Buildings City of Hesperia, CA Preliminary Drainage Report* prepared by WestLAND Group Inc. in November 2019 (Appendix I)
- *Mojave River Watershed Preliminary Water Quality Management Plan for: Hesperia Commerce II* prepared by WestLAND Group Inc. in November 2019 (Appendix I)
- Water Supply Assessment prepared by KEC Engineers Inc. in June 2020 (Appendix L)

4.8.1 Existing Conditions

Regional Watershed

The Project site is located within the Mojave River Watershed, which encompasses approximately 4,500 square miles and is located entirely within San Bernardino County. Elevations within the watershed range from 1,400 feet at Afton Canyon to 8,500 feet above mean sea level (amsl) at Butler Peak in the San Bernardino Mountains (County of San Bernardino 2003). The primary geographic and surface hydrologic feature of the watershed is the Mojave River. The headwaters of the Mojave River are located in the San Bernardino Mountains, which annually receive greater than 40 inches of precipitation at the highest elevations. Much of the winter precipitation in the San Bernardino Mountains falls in the form of snow, which subsequently provides spring recharge to the Mojave River system due to snowmelt. The Mojave River channel transects the watershed for approximately 120 miles until it reaches Silver Dry Lake near the community of Baker. Some reaches of the Mojave River flow underground in the confined riverbed channel. The Mojave River channel is typically dry downstream of the Mojave Forks Dam except in select locations where groundwater is forced to the surface by geologic structures (County of San Bernardino 2003). The Mojave River is located approximately 8.4 miles to the east of the Project site.

The Mojave River Watershed is subdivided into a number of subwatersheds by the San Bernardino Flood Control District, including the Upper Mojave, Middle Mojave, Lower Mojave, and Mojave–Baker watersheds. The Project site is located within the Upper Mojave River Watershed (County of San Bernardino 2003). The U.S. Geological Survey (USGS) Watershed Boundary Dataset delineates watersheds according to hydrologic units, which are nested within one another according to the scale of interest. In a regional context, the USGS has established that the City of Hesperia is located within the Mojave Watershed Hydrologic Unit, which includes 4,580 square miles. Within this greater watershed, the City of Hesperia is located within the Upper Mojave Hydrologic Area (Hydrologic Sub-Area 628.20), encompassing 870 square miles (Figure 4.8-1, Hydrologic Sub-Areas) (City of Hesperia 2010a).

At its closest point, the Oro Grande Wash is located approximately 0.2 miles to the northwest of the Project site (Figure 4.8-2, Major Surface Waters). The Oro Grande Wash is a major tributary of the Mojave River and drains from the bluffs in Cajon Pass. The wash starts in Oak Hills, between Interstate 15 and Phelan, and flows approximately 40 miles north and northeast before emptying into the Mojave River. The Oro Grande Wash generally forms a natural buffer to the light industrial, commercial, and residential uses along U.S. Highway 395 and Interstate 15. In addition, the Oro Grande Wash serves as a natural habitat, a channel for storm runoff, and a potential place for recreation. Due to the washes many benefits, the City of Hesperia's *Main Street and Freeway Corridor Specific Plan* has identified the Oro Grande Wash as a Wash Protection Overlay, which limits the construction of permanent structures within the washes' right-of-way (City of Hesperia 2010a, 2014).

Topography and Drainage

The Project consists of a 194.8-acre, irregularly shaped site that consists of vacant, undeveloped land that has been moderately disturbed in the past from illegal dumping, trespassing, and unpermitted off-road-vehicle use. Ground surface cover within the Project site is moderately vegetated with native grasses, shrubs, and trees. Surface elevation within the Project site is relatively flat, ranging between 3,522 feet amsl in the northeast corner to 3,602 feet amsl in the southwest. For a majority of the Project site, runoff sheet flows along a 2% topographic gradient to the northeast, while the runoff in the southwest corner sheet flows along a 7% gradient to the west (Appendix I).

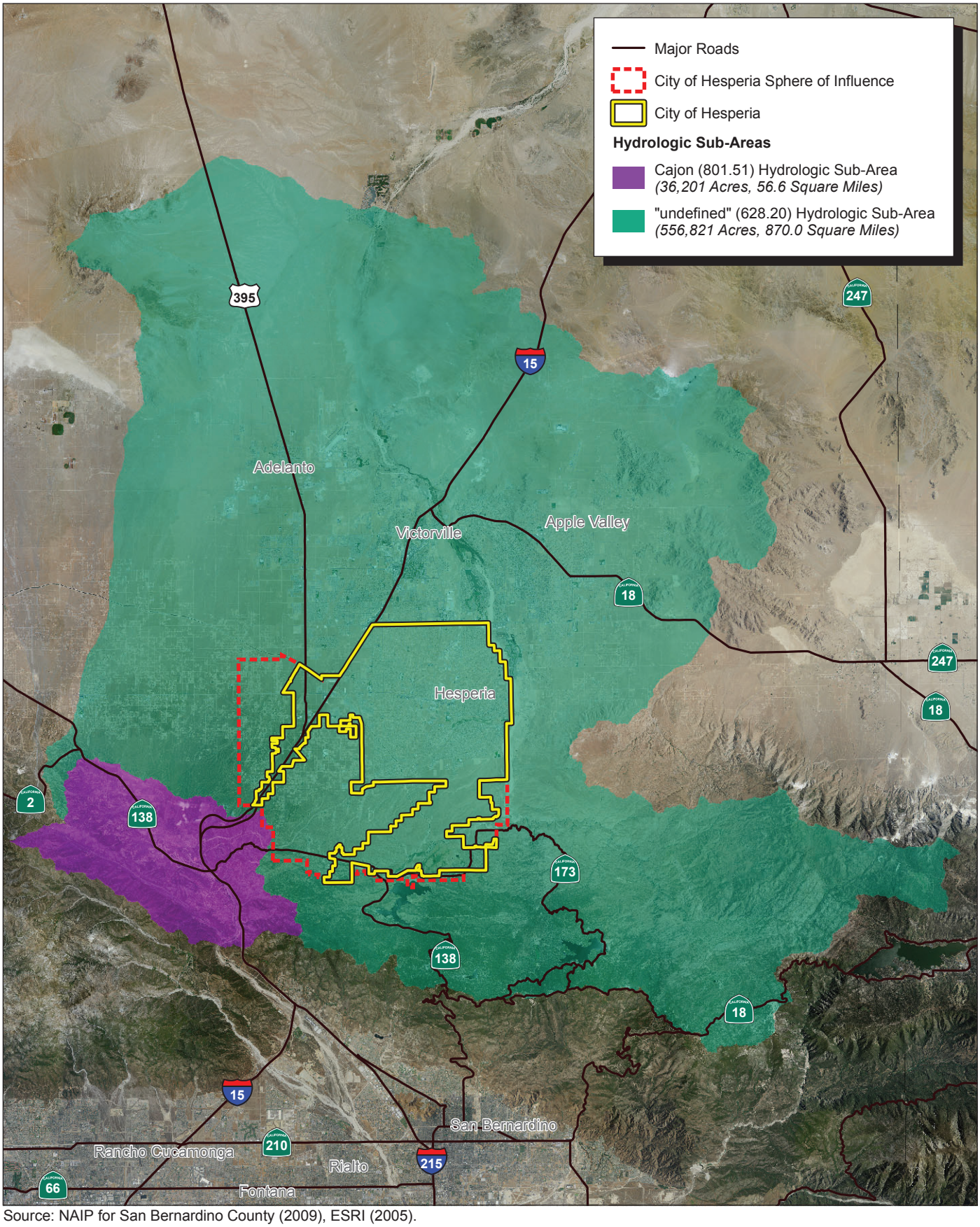
Stormwater from the Project site is currently conveyed off site via six drainage areas, including Drainage Area A through Drainage Area F (Figure 4.8-3, Existing Drainage Conditions). For a majority of the Project site, Drainage Area C through Drainage Area F flows to the northeast, while Drainage Area B flows to the west, and Drainage Area A flows to the south. Under existing conditions, no storm drain or treatment facilities are currently found on site, and, thus, stormwater is not presently collected or treated on the Project site prior to being discharging off-site and (Appendix I; Figure 4.8-3, Existing Drainage Conditions). Rather, these flows typically pool in depressions in the topography on site and off site and can sometimes result in off-site flooding. Western and southern flows currently drain into an unnamed wash directly to the southwest of the Project site.

The San Bernardino County Hydrology Manual requires that a storm drain conveyance system be designed for the 2-year, 10-year, and 100-year storm for a 24-hour storm event (Appendix I). The existing discharge of the 100-year, 24-hour storm event for each Drainage Area within the Project site is shown in Table 4.8-1, Existing Hydrology Summary.

Table 4.8-1. Existing Hydrology Summary

Drainage Area No.	Tributary Area (Acres)	Pervious Ratio	Volume of 100-Year, 24-Hour Storm Event (Cubic Feet)
Area A	0.61	1.00	8,346
Area B	7.52	1.00	102,728
Area C	109.58	1.00	1,477,133
Area D	54.90	1.00	743,887
Area E	8.64	1.00	117,559
Area F	6.72	1.00	183,336
Total	**193.63**		**2,633,019**

Source: Appendix I



Source: NAIP for San Bernardino County (2009), ESRI (2005).

SOURCE: Michael Brandman Associates 2010

FIGURE 4.8-1

Hydrologic Sub-Areas

Hesperia Commerce Center II

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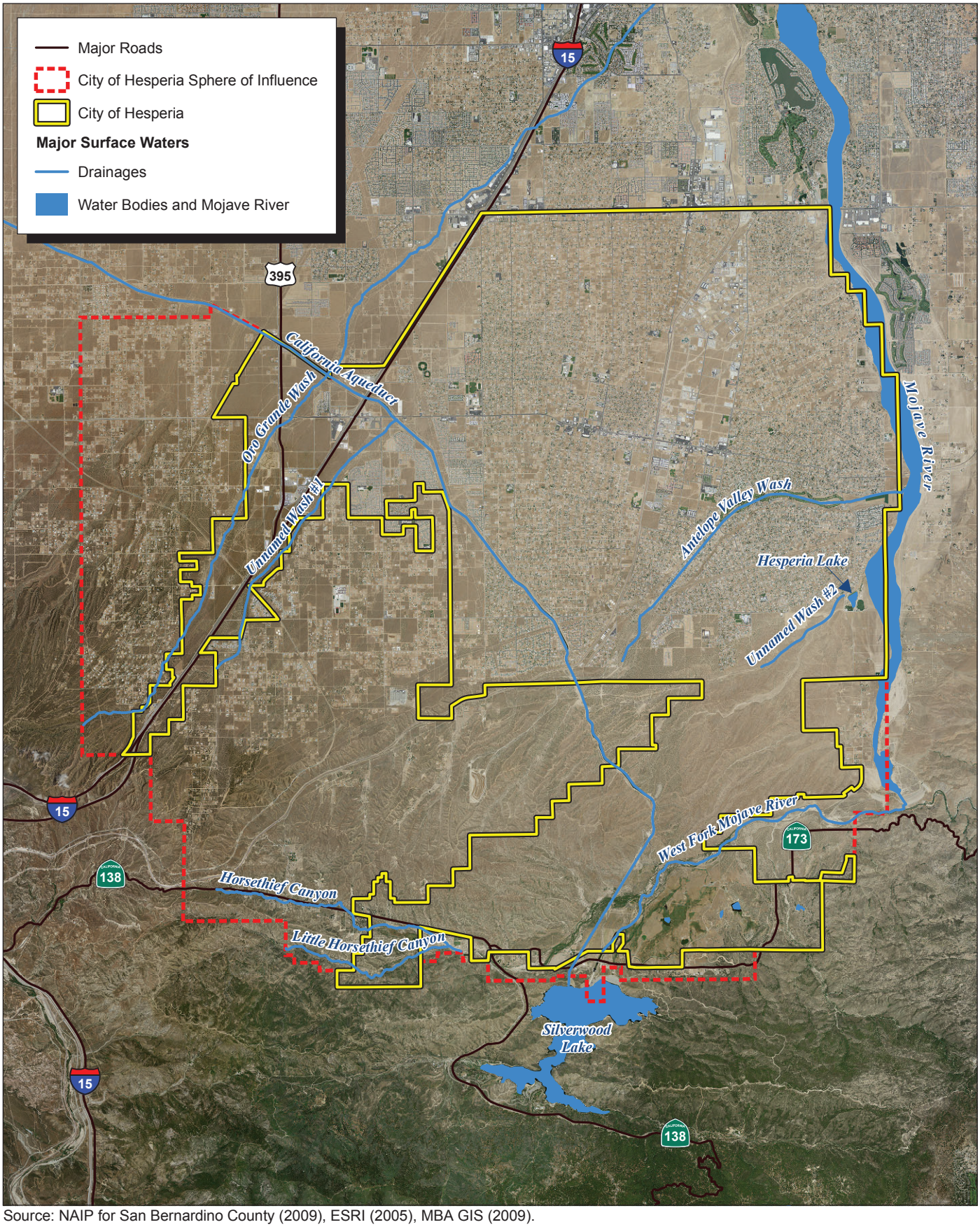

Source: NAIP for San Bernardino County (2009), ESRI (2005), MBA GIS (2009).

SOURCE: Michael Brandman Associates 2010

FIGURE 4.8-2

Major Surface Waters

Hesperia Commerce Center II

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LEGEND:

- DRAINAGE AREA BOUNDARY
- SUB DRAINAGE AREA BOUNDARY
- FLOW PATH
- PROPOSED FLOW DIRECTION ARROW
- A=3.0 — SUB-DRAINAGE AREA (AC)
- X / XXX — DRAINAGE AREA DESIGNATION / AREA (AC)
- 1.0 — REACH NUMBER
- HP — HIGHT POINT

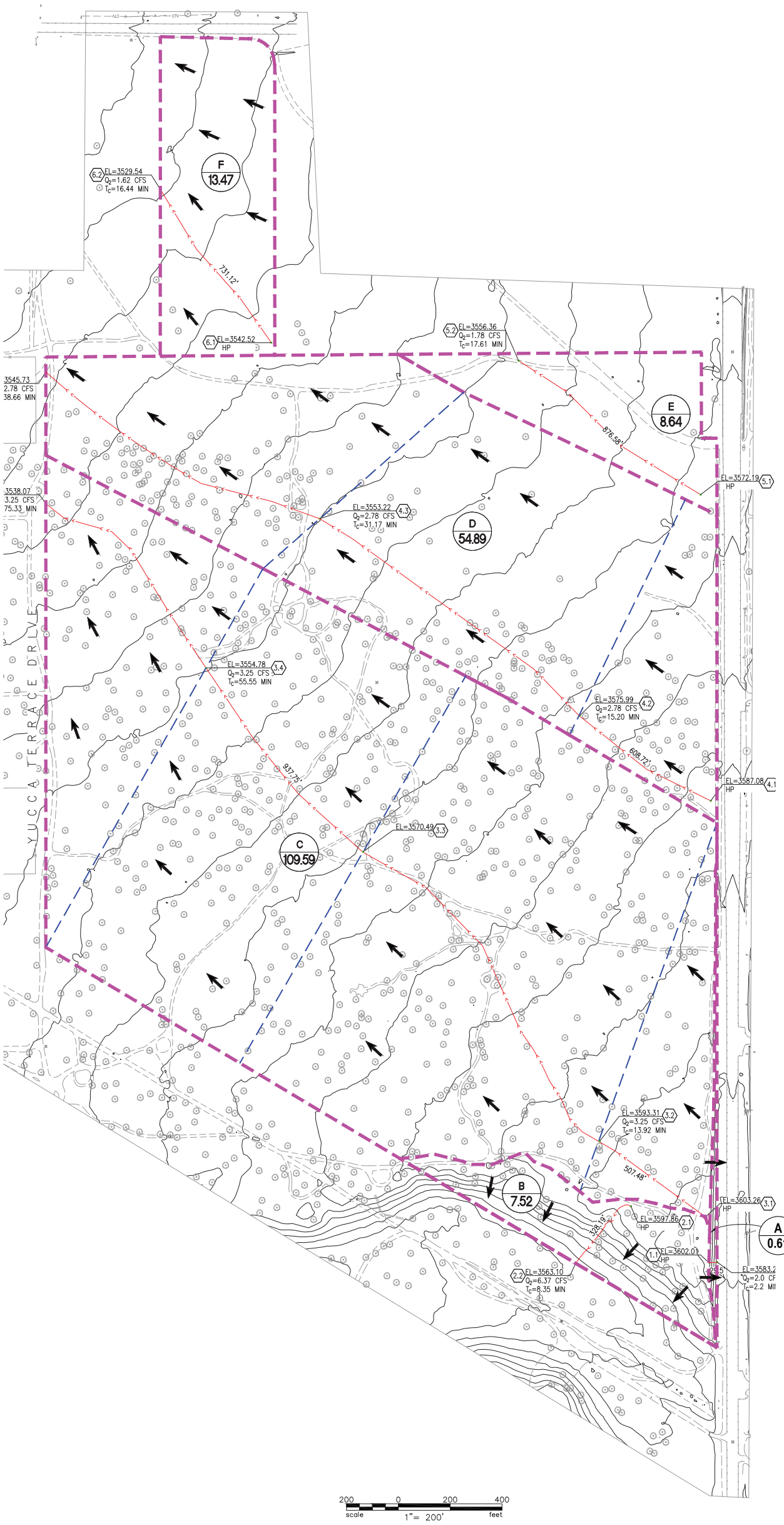
HYDROLOGY INFORMATION

SITE AREA 1: 193.63 ACRE
SOIL GROUP: A (PER SBC SOIL GROUP MAP FIGURE C-15)
ISOHYETALS: 1.29" (100-YEAR 1 HOUR)
0.77" (10-YEAR 1 HOUR)
CN NUMBER: 67 (SOIL GROUP A)

FREQUENCY: 100 YEAR (FOR STORM DRAIN DESIGN)
2 YEAR (FOR STORMWATER QUALITY)
METHOD: SAN BERNARDINO COUNTY HYDROLOGY MANUAL

HYDROLOGY SUMMARY

DRAINAGE AREA No.	TRIBUTARY AREA (AC)	PERVIOUS RATIO	VOLUME (CFT)
AREA A	0.61	1.00	8,346
AREA B	7.52	1.00	102,728
AREA C	109.58	1.00	1,477,133
AREA D	54.90	1.00	743,887
AREA E	8.64	1.00	117,559
AREA F	6.72	1.00	183,366
TOTAL	193.63		2,633,019



SOURCE: WestLAND Group 2019

FIGURE 4.8-3
Existing Drainage Conditions
Hesperia Commerce Center II

DUDEK

Path: Z:\Projects\12120\MAPDOC\DOCUMENT\Hydrology

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Surface Water Quality

Beneficial Uses and Total Maximum Daily Loads

Stormwater runoff is a significant contributor to local and regional pollution. Urban stormwater runoff is the largest source of unregulated pollution in the waterways of the United States. Federal, state, and regional regulations require the City of Hesperia to control the discharge of pollutants to the storm drain system, including the discharge of pollutants from construction sites and areas of new development.

In accordance with state policy for water quality control, the Lahontan Regional Water Quality Control Board (Lahontan RWQCB) regulates water quality, among various other agencies, within the Mojave River Region. Water quality objectives, plans, and policies for the surface waters within this region are established in the Mojave River Basin Plan Amendment of the Lahontan Basin Plan. The Basin Plan for the Mojave River Region has identified existing and potential beneficial uses supported by the key surface water drainages throughout its jurisdiction. The existing and proposed beneficial uses of the Upper Mojave Hydrologic Area includes the following (Lahontan RWQCB 2019):

- Municipal and Domestic Supply
- Agricultural Supply
- Groundwater Recharge
- Fresh Water Replenishment
- Hydropower Generation
- Water Contact Recreation
- Noncontact Water Recreation
- Commercial and Sport Fishing
- Warm Freshwater Habitat
- Cold Freshwater Habitat
- Wildlife Habitat
- Preservation of Biological Habitats of Special Significance
- Migration of Aquatic Organisms
- Spawning, Reproduction, and/or Early Development
- Water Quality Enhancement
- Flood Water Storage

Under the Clean Water Act (CWA) Section 303(d), the State of California is required to develop a list of impaired water bodies that do not meet water quality standards and objectives. The United States Environmental Protection Agency (USEPA) has approved a 303(d) list of water quality impairments for water bodies located downstream of the Project site, which includes the Mojave Forks Reservoir Outlets to the Upper Narrows segment of the Mojave River (SWRCB 2017).

Once a water body has been listed as impaired on the 303(d) list, a total maximum daily load (TMDL) for the constituent of concern (pollutant) must be developed for that water body. A TMDL is an estimate of the daily load of pollutants that a water body may receive from point sources, non-point sources, and natural background conditions (including an appropriate margin of safety), without exceeding its water quality standards. Those facilities and activities that are discharging into the water body, collectively, must not exceed the TMDL. In general,

dischargers within each watershed are collectively responsible for meeting the required reductions and other TMDL requirements by the assigned deadline. Only one TMDL has been established for the Mojave River Watershed. A TMDL for the Mojave Forks Reservoir Outlet to the Upper Narrows segment of the Mojave River has been established for fluoride (SWRCB 2017).

General Watershed Water Quality

The Mojave River was selected as a priority or "focus" watershed by the State Water Resource Control Board (SWRCB) because of numerous water quality and quantity issues. Historically known for its agriculture, industrial, and military uses, Victor Valley has significantly changed during the last several decades into a satellite of Southern California's urbanization. Urban growth has substantially modified the areas of waste discharges that could potentially affect water quality, including stormwater and wastewater treatment. There are also numerous water quality issues associated with past and current agricultural, industrial, and military land uses throughout the watershed. Because of water quality degradation associated with past industrial activities, some waters in the Mojave River Watershed are listed as a water quality limited segments, as previously discussed.

Water quality problems in the Mojave River Watershed are primarily related to non-point sources, including erosion (from construction, timber harvesting, and livestock grazing), stormwater, acid drainage from inactive mines, and individual wastewater disposal systems. There are relatively few point-source discharges. Some types of discharges may be considered either point source or non-point source, depending on site-specific circumstances. For example, stormwater that enters one lake through a pipe may be regulated as a point source, while stormwater that enters a lake via sheet flow is considered a non-point-source discharge (Lahontan RWQCB 2015).

In the early 1970s, RWQCB evaluated existing surface water quality data for the Mojave River Watershed. Based on these data, RWQCB adopted numerical water quality objectives for inorganic constituents in surface waters of the Mojave River and several of its tributaries in the San Bernardino Mountains. These numerical standards generally represented native or background water quality. For the purpose of evaluating the water quality objectives, RWQCB has assembled two groups of stakeholders. The first group is focused on surface water upstream of the Mojave Forks Dam, which is located near the City of Hesperia. The second group is focused on groundwater of the Mojave River floodplain aquifer downstream of the Mojave Forks Dam, and the few downstream locations where groundwater is forced to the surface of the Mojave River floodplain by geologic structures. The overall goal of the sampling effort is to compare existing surface water quality to the water quality objectives that were developed in the 1970s (Lahontan RWQCB 2002).

The RWQCB assembled a stakeholder group (the Mojave River Watershed Group), including the communities of Town of Apple Valley, the Cities of Hesperia and Victorville, and the County of San Bernardino, to address water quality concerns associated with stormwater. The Mojave River Watershed Group was responsible for developing and implementing a regional stormwater management plan as required by the Phase II Small municipal separate storm sewer systems (MS4) Permit. Identification of critical areas of stormwater flow and the full list of constituents of concern are the primary goals of the Lahontan RWQCB (2002).

The Mojave River Watershed Group publishes an annual report summarizing the results of their Phase II Small MS4 General Permit program, which is intended to minimize or eliminate adverse surface water quality impacts by instituting controls on those MS4 discharges that have the greatest potential to cause environmental degradation. Discharges to, or from, the MS4 are of concern because they may contain pollutants, including trash, debris, sediments, fertilizers, oil, grease, metals, and pesticides. These discharges can result in the loss of surface water beneficial uses and contaminate local drinking water supplies. Among other annual tasks, the stakeholder group

has developed a Construction Site Storm Water Runoff Control Program and a Post-Construction Site Storm Water Control Program, which are intended to develop, implement, and enforce programs to prevent the discharge of construction site and post-construction pollutants as well as minimize or eliminate negative impacts on the beneficial uses of receiving waters (Mojave River Watershed Group 2014).

Water Supply

The City's water system is managed by the Hesperia Water District, which is a subsidiary special district of the City. The Hesperia Water District provides utility service for the water and sewer system within the City and operates as a self-sustaining utility business enterprise. With minor exceptions, the Hesperia Water District's service area matches the City's boundaries and covers approximately 74 square miles.

Hesperia Water District estimates that it currently (i.e., in 2020) receives approximately 88.0% of its water from groundwater, 5.5% from purchased water, and 6.5% from recycled water (Hesperia Water District 2016). Regarding the portion of the District's water supply that originates as groundwater, the District receives water from sixteen active wells within the City, the entirety of which is located within Alto Subarea sub basin of the Mojave River Groundwater Basin. The Mojave Water Agency serves as the entity responsible for managing the use, replenishment, and protection of the groundwater basin. The Mojave River Ground Water Basin is adjudicated basin and thus has a managed groundwater extraction rate, reducing the potential for over-extraction to occur (Hesperia Water District 2016). The Adjudication Judgement allocated a Based Annual Productions (BAP) amount to each producer in the Mojave River Groundwater Basin using more than 10 acre-feet per year, based on historical production. A Production Safe Yield (PSY) was also determined for each subarea within the Mojave River Groundwater Basin for each year. The PSY in each subarea is assumed to equal the average net natural water supply plus the expected return flow from the previous year's water production. Users are assigned a variable Free Production Allowance (FPA), which is a uniform percentage of BAP set for each subarea, as an annual maximum amount of water a producer can withdraw without incurring a fine. This percentage is reduced over time until total FPA comes into balance with PSY (Hesperia Water District 2016).

Historically, Hesperia Water District has been able to reliably serve customers' water supply needs from year-to-year. To maintain this reliability in water supply, the Hesperia Water District 2015 Urban Water Management Plan (UWMP) contains a Water Shortage Contingency Plan, which includes the stages of response to a water shortage, such as drought, that occur over a period of time, as well as catastrophic supply interruptions that occur suddenly. The primary objective of the Water Shortage Contingency Plan is to ensure that the Hesperia Water District has in place the necessary resources and management responses needed to protect health and human safety, minimize economic disruption, and preserve environmental and community assets during water supply shortages and interruptions. This plan involves implementing mandatory water reduction from its customers as well as implementing fines and penalties for those who exceed their allocated water usage (Hesperia Water District 2016).

Pursuant to the requirements of SB 610, a WSA was prepared for the Project and includes a comprehensive assessment of historical demands and a projection of future demands based on forecasted development of the remaining developable lands within the City's water service area. The WSA concluded the following (Appendix L):

> This WSA concludes that the total projected water supplies available to Hesperia Water District during normal, single-dry, and multiple-dry water years over the next 20 years will be sufficient to meet the projected water demands for the proposed project.

Groundwater

The Mojave River Groundwater Basin overlies a broad hydrologic region throughout San Bernardino County. The Mojave River Groundwater Basin is essentially a closed basin, as very little groundwater enters or exits the basin. However, within the basin, groundwater movement occurs between the different subareas, as well as groundwater-surface water. Groundwater is recharged into the basin predominantly by the infiltration of water from the Mojave River, which accounts for approximately 80 of the total basin natural recharge. Other sources of recharge include infiltration of storm runoff from the mountains, and recharge from human activities such as irrigation return flows, wastewater discharge, and enhanced recharge with imported water. Over 90% of the basin groundwater recharge originates in the San Gabriel and San Bernardino Mountains. Groundwater is discharged from the basin primarily by well pumping, evaporation through the soil, transpiration by plants, seepage into dry lakes where accumulated water evaporates, and seepage into the Mojave River (Hesperia Water District 2016).

The California Department of Water Resources (CDWR) has subdivided the Mojave River Groundwater Basin into three groundwater subbasins based on local hydrologic and geologic characteristics. The three basins consist of the Upper Mojave River Groundwater Basin, the Middle Mojave River Groundwater Basin, and the Lower Mojave River Groundwater Basin (CDWR 2013). Based on CDWR's *Bulletin 118*, the Project site is underlain by the Upper Mojave River Valley Groundwater Basin (Hesperia Water District 2016). This Basin is bounded on the north by a roughly east-west line from basement rock outcrops near the Shadow Mountains. The southern boundary is the contact between Quaternary sedimentary deposits and unconsolidated basement rocks of the San Bernardino Mountains. The basin is bounded on the southeast by the Helendale Fault, and on the east by basement exposures of the mountains surrounding Apple Valley. In the west, the boundary is marked by a surface drainage divide between this basin and El Mirage Valley Basin, and contact between alluvium and basement rocks that form the Shadow Mountains (CDWR 2004).

As discussed in further detail in Section 4.8.2, Relevant Plans, Policies, and Ordinances, the Sustainable Groundwater Management Act (SGMA) requires governments and water agencies of high- and medium-priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. In accordance with the SGMA, CDWR has classified the Upper Mojave River Valley Groundwater Basin as having a very low priority in regards to prioritizing completion of a Groundwater Sustainability Plan (GSP) (CDWR 2019). In addition, the groundwater basin is adjudicated and thus has a managed groundwater extraction rate, reducing the potential for over-extraction to occur (Hesperia Water District 2016).

Groundwater Quality

A Phase I Environmental Site Assessment of the Project site was performed in 2017 by Consolidated Consulting Group LLC (CCG) (Appendix H). During the site reconnaissance of the Project site, CCG identified numerous debris piles/dumpsites on the east and northwest portions of the Project site containing multiple (50+) 5-gallon buckets and 5-quart jugs labeled as containing motor oil. Stained soils stemming from the motor oil containers suggest that some petroleum products may have permeated the underlying soils, potentially affecting on-site groundwater quality. However, a site-specific geotechnical investigation by Southern California Geotechnical (2019) did not encounter groundwater within 40 feet below ground surface (bgs) during on-site exploration drilling. The nearest monitoring well in this database is located approximately 1,607 feet east of the site. Water level readings within this monitoring well indicate a groundwater level of 586 feet bgs. As a result, it is concluded that petroleum products would not have infiltrated deep enough to contaminate on-site groundwater. See Section 4.7, Hazards, Hazardous Materials, and Wildfire, for additional information pertaining to on-site soil contamination.

Flood Hazards

Flooding is a significant problem in Hesperia. Historically, the City has been subject to flooding during periods of heavy rainfall, falling primarily between the months of October through April, which causes streams and drainage canals to become overwhelmed and overflow their banks and/or inundate storm drainage systems. Occasionally, overbank flows in Hesperia have resulted in the flooding of residential properties, road blockages, and traffic disruptions. In urbanizing areas, the increase in paved areas associated with new development decreases the amount of open land available to absorb rainfall and runoff, thus increasing the volume of water that must be carried away from by waterways. Flooding has damaged or destroyed commercial and residential structures; flooded bridges and streets, and caused stream channels and flood control works to erode (City of Hesperia 2017).

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) panel 06071C6490H, effective August 28, 2008, indicates that the Project site is located in an area designated as Zone X, an area of minimal flood hazard (FEMA 2020). This area is higher in elevation than the 0.2% annual chance flood (i.e., 500-year flood) (FEMA 2019). As such, the potential for flooding within the Project boundaries is low.

4.8.2 Relevant Plans, Policies, and Ordinances

Federal

Clean Water Act

Increasing public awareness and concern for controlling water pollution led to the enactment of the Federal Water Pollution Control Act Amendments of 1972. As amended in 1977, this law became commonly known as Clean Water Act (CWA) (33 USC 1251 et seq.). The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. The CWA established basic guidelines for regulating discharges of pollutants into the waters of the United States. The CWA requires that states adopt water quality standards to protect public health, enhance the quality of water resources, and ensure implementation of the CWA.

Section 401 of the CWA (Water Quality Certification)

Section 401 of the CWA requires that an applicant for any federal permit (e.g., United States Army Corp. of Engineers [USACE] Section 404 permit) obtain certification from the state, requiring that discharges to waters of the United States comply with provisions of the CWA and with state water quality standards. For example, an applicant for a permit under Section 404 of the CWA must also obtain water quality certification per Section 401 of the CWA. Section 404 of the CWA requires a permit from USACE prior to discharging dredged or fill material into waters of the United States unless such a discharge is exempt from CWA Section 404. For the Project site, the Lahontan RWQCB must provide the water quality certification required under Section 401 of the CWA.

Section 404 of the Clean Water Act

Section 404 of the CWA established a permitting program to regulate the discharge of dredged or fill material into waters of the United States, which include wetlands adjacent to national waters (33 USC 1344). This permitting program is administered by USACE and enforced by USEPA. For more information on Section 404 of the CWA, see Section 4.3, Biological Resources, of this Environmental Impact Report.

National Flood Insurance Program

The National Flood Insurance Act of 1968 established the National Flood Insurance Program to provide flood insurance within communities that were willing to adopt floodplain management programs to mitigate future flood losses. The National Flood Insurance Act also requires the identification of all floodplain areas within the United States and the establishment of flood-risk zones within those areas. FEMA is the primary agency responsible for administering programs and coordinating with communities to establish effective floodplain management standards. FEMA is responsible for preparing FIRMs that delineate the areas of known special flood hazards and their risk applicable to the community. The National Flood Insurance Program encourages the adoption and enforcement by local communities' floodplain management ordinances that reduce flood risks. In support of the National Flood Insurance Program, FEMA identifies flood hazard areas throughout the United States on FEMA flood hazard boundary maps.

Federal Antidegradation Policy

The Federal Antidegradation Policy (40 CFR 131.12) requires states to develop and implement statewide antidegradation policies. Pursuant to the Code of Federal Regulations, state antidegradation policies and implementation methods must, at a minimum, (1) protect and maintain existing in-stream water uses; (2) protect and maintain existing water quality, where the quality of the waters exceeds levels necessary to support existing beneficial uses (unless the state finds that allowing lower water quality is necessary to accommodate economic and social development in the area); and (3) protect and maintain water quality in waters considered an outstanding national resource.

State

National Pollutant Discharge Elimination System

Direct discharges of pollutants into waters of the United States are not allowed, except in accordance with the National Pollutant Discharge Elimination System (NPDES) program, established in Section 402 of the CWA. A Stormwater Pollution Prevention Plan (SWPPP) prepared in compliance with an NPDES permit describes erosion and sediment controls, runoff water quality monitoring, means of waste disposal, implementation of approved local plans, control of post-construction sediment and erosion control measures and maintenance responsibilities, and non-stormwater management controls. Dischargers are also required to inspect construction sites before and after storms to identify stormwater discharge from construction activity and to identify and implement controls, where necessary.

California Porter–Cologne Water Quality Control Act

Since 1973, the California SWRCB and its nine RWQCBs have been delegated the responsibility for administering permitted discharge into the waters of California. The Project falls within the jurisdiction of the Lahontan RWCQB. The Porter-Cologne Water Quality Act (California Water Code Section 13000 et seq.; California Code of Regulations, Title 23, Chapter 3, Chapter 15) provides a comprehensive water quality management system for the protection of California waters. Under this act, "any person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state" must file a report of the discharge with the appropriate RWQCB. Pursuant to the act, the RWQCB may then prescribe "waste discharge requirements" that add conditions related to control of the discharge. Porter–Cologne defines "waste" broadly, and the term has been applied to a diverse array of materials, including non-point-source pollution. When regulating discharges that are included in the federal CWA, the state essentially treats Waste Discharge Requirements and NPDES regulations as a single

permitting vehicle. In April 1991, the SWRCB and other state environmental agencies were incorporated into the California Environmental Protection Agency.

The RWQCB regulates urban runoff discharges under the NPDES permit regulations. NPDES permitting requirements cover runoff discharged from point (e.g., industrial outfall discharges) and non-point (e.g., stormwater runoff) sources. The RWQCB implements the NPDES program by issuing construction and industrial discharge permits.

Under the NPDES permit regulations, best management practices (BMPs) are required. USEPA defines BMPs as "schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States." BMPs include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage (40 CFR 122.2).

California Antidegradation Policy

The California Antidegradation Policy, otherwise known as the Statement of Policy with Respect to Maintaining High-Quality Water in California, was adopted by the SWRCB (State Board Resolution No. 68-16) in 1968. Unlike the federal Antidegradation Policy, the California Antidegradation Policy applies to all waters of the state (e.g., includes isolated wetlands and groundwater), not just surface waters. The policy states that whenever the existing quality of a water body is better than the quality established in individual Basin Plans, such high quality must be maintained, and discharges to that water body must not unreasonably affect present or anticipated beneficial uses of such water resources.

California Green Building Standards Code

Formerly known as the California Green Building Standards Code, Title 24, Part 11, of the California Code of Regulations, CALGreen is designed to improve public health, safety, and general welfare by utilizing design and construction methods that reduce the negative environmental impact of development and to encourage sustainable construction practices. CALGreen provides mandatory direction to developers of all new construction and renovations of residential and non-residential structures with regard to all aspects of design and construction, including, but not limited to, site drainage design, stormwater management, and water use efficiency. Required measures are accompanied by a set of voluntary standards designed to encourage developers and cities to aim for a higher standard of development.

Section 303 of the Clean Water Act (Beneficial Uses and Total Maximum Daily Loads)

The Lahontan RWQCB is responsible for the protection of the beneficial uses of waters within the Project area in San Bernardino County. The Lahontan RWQCB uses its planning, permitting, and enforcement authority to meet its responsibilities adopted in the Lahontan Basin Plan to implement plans, policies, and provisions for water quality management.

In accordance with state policy for water quality control, the RWQCB employs a range of beneficial use definitions for surface waters, groundwater basins, marshes, and mudflats that serve as the basis for establishing water quality objectives and discharge conditions and prohibitions. The Lahontan Basin Plan has identified existing and potential beneficial uses supported by the key surface water drainages throughout its jurisdiction. Beneficial uses of waters within the Mojave River Watershed are addressed in the Mojave River Basin Plan Amendment of the Lahontan Basin Plan.

Under CWA Section 303(d), California is required to develop a list of impaired water bodies that do not meet water quality standards and objectives. A TMDL defines how much of a specific pollutant/stressor a given water body can tolerate and still meet relevant water quality standards. The Lahontan RWQCB has developed TMDLs for select reaches of water bodies.

California Toxics Rule

USEPA has established water quality criteria for certain toxic substances via the California Toxics Rule. The California Toxics Rule established acute (i.e., short-term) and chronic (i.e., long-term) standards for bodies of water, such as inland surface waters and enclosed bays and estuaries, that are designated by each RWQCB as having beneficial uses protective of aquatic life or human health.

California Water Code

The California Water Code includes 22 kinds of districts or local agencies with specific statutory provisions to manage surface water. Many of these agencies have statutory authority to exercise some forms of groundwater management. For example, a Water Replenishment District (Water Code Section 60000 et seq.) is authorized to establish groundwater replenishment programs and collect fees for that service, and a Water Conservation District (Water Code Section 75500 et seq.) can levy groundwater extraction fees. Through special acts of the Legislature, 13 local agencies have been granted greater authority to manage groundwater. Most of these agencies, formed since 1980, have the authority to limit export and control some in-basin extraction upon evidence of overdraft or the threat of an overdraft condition. These agencies can also generally levy fees for groundwater management activities and for water supply replenishment.

Assembly Bill 3030 – Groundwater Management Act

In 1992, Assembly Bill 3030 was passed, which increased the number of local agencies authorized to develop a groundwater management plan and set forth a common framework for management by local agencies throughout California. These agencies could possess the same authority as a water replenishment district to "fix and collect fees and assessments for groundwater management" (Water Code Section 10754), provided they receive a majority of votes in favor of the proposal in a local election (Water Code Section 10754.3).

Sustainable Groundwater Management Act

On September 16, 2014, Governor Jerry Brown signed into law a three-bill legislative package—AB 1739 (Dickinson), Senate Bill (SB) 1168 (Pavley), and SB 1319 (Pavley)—collectively known as SGMA. This Act requires governments and water agencies of high- and medium-priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. For critically over-drafted basins, sustainability should be achieved by 2040. For the remaining high- and medium-priority basins, 2042 is the deadline. Through the SGMA, the CDWR provides ongoing support to local agencies through guidance, financial assistance, and technical assistance. SGMA empowers local agencies to form Groundwater Sustainability Agencies (GSAs) to manage basins sustainably, and requires those GSAs to adopt GSPs for crucial groundwater basins in California.

Urban Water Management Plans

Pursuant to the California Urban Water Management Act (California Water Code Sections 10610–10656), urban water purveyors are required to prepare and update a UWMP every 5 years. UWMPs are prepared by California's

urban water suppliers to support long-term resource planning and ensure adequate water supplies. Every urban water supplier that either delivers more than 3,000 acre-feet per year of water annually or serves more than 3,000 connections are required to assess the reliability of its water sources over a 20-year period under normal-year, dry-year, and multiple-dry-year scenarios in a UWMP. UWMPs must be updated and submitted to the CDWR every 5 years for review and approval. The Project site is within the area addressed by Hesperia Water District UWMP.

Senate Bill 610 and Senate Bill 221: Water Supply Assessments

SB 610 and SB 221, amended into state law effective January 1, 2002, improve the linkage between certain land-use decisions made by cities and counties and water supply availability. The statutes require detailed information regarding water availability and reliability with respect to certain developments to be included in the administrative record, to serve as the evidentiary basis for an approval action by the City or County on such projects. Under Water Code Section 10912(a), projects subject to the California Environmental Quality Act (CEQA) that require a water supply assessment (WSA) include (1) residential development of more than 500 dwelling units; (2) shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space; (3) commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space; (4) hotel, motel or both, having more than 500 rooms; (5) industrial, manufacturing, or processing plants, or industrial parks planned to house more than 1,000 persons, occupying more than 40 acres of land or having more than 650,000 square feet of floor area; (6) mixed-use projects that include one or more of the projects specified; or (7) a project that would demand an amount of water equivalent to or greater than the amount required by a 500 dwelling unit project. A fundamental source document for compliance with SB 610 is the UWMP, which can be used by the water supplier to meet the standard for SB 610. SB 221 applies to the Subdivision Map Act, conditioning a tentative map on the applicant to verify that the public water supplier has sufficient water available to serve the proposed development.

Regional

Mojave River Watershed Water Quality Management Plan

The 2013 Phase II Small MS4 Permit, adopted by the SWRCB, and issued statewide, requires all new development projects covered by this Order to incorporate low-impact development (LID) BMPs to the maximum extent practicable. In San Bernardino County, the Phase II MS4 Permit is applicable within the Mojave River Watershed. In addition, the Order also requires the development of a standard design and post-development BMP guidance for incorporation of site design/LID, source control, treatment control BMP (where feasible and applicable), and hydromodification mitigation measures to the maximum extent practicable to reduce the discharge of pollutants to receiving waters. The purpose of this technical guidance document for the Water Quality Management Plan (WQMP) is to provide direction to project proponents on the regulatory requirements applicable to a private or public development activity, from project conception to completion. This technical guidance document is intended to serve as a living document, which will be updated as needed to remain applicable beyond the current Phase II MS4 Permit term. Any non-substantive updates to the technical guiding document and WQMP template will be provided in the annual report. Future substantive updates shall be submitted to the Lahontan RWQCB for review and approval, prior to implementation.

Mojave Storm Water Management Program

The NPDES General Permit NO. CAS000004, Waste Discharge Requirements for stormwater discharges from Small MS4s requires that Permittees develop a Storm Water Management Program (SWMP). The purpose of this SWMP

is to keep the Mojave River clean to the maximum extent practicable using BMPs. These practices would reduce stormwater runoff and non-storm water runoff flowing to the river. BMPS would also serve to keep contaminations, including sediment, non-sediment solids, nutrients, pathogens, oxygen-demanding substances, petroleum hydrocarbons, heavy metals, floatables, polycyclic aromatic hydrocarbons, pesticides, herbicides and trash from entering the storm drain system.

Local

City of Hesperia General Plan

The Conservation Element of the City of Hesperia General Plan identifies, establishes, and sets forth policies to promote the sustainability and environmental integrity of natural resources throughout the City. In addition, the Safety Element of the General Plan identifies, establishes, and sets forth policies to address hydrological hazards within the municipality, including flooding hazards. Goals or policies related to hydrology and water quality in the General Plan include the following (City of Hesperia 2010b):

Conservation Element

Goal CN-1 Conserve water resources within the Upper Mojave River Groundwater Basin.

- **Policy CN 1.1** Promote the use of desert vegetation with low water usage and drought-tolerant materials in landscaped areas.
- **Policy CN 1.2** Educate residents on water conservation methods with best practices and tips.
- **Policy CN 1.3** Promote reduced use of high nitrate fertilizers, herbicides, pesticides and other chemicals in landscaping areas that can contaminate the quality of the groundwater.
- **Policy CN 1.4** Limit the disturbance of natural water hydrology by minimizing the creation of impervious surface area and continued utilization of underground retention/detention facilities to recharge groundwater.
- **Policy CN 1.5** Work with local agencies and jurisdictions to provide a coordinated effort to ensure a safe and constant water supply for the region.
- **Policy CN 1.6** Encourage the use of low-water consumption fixtures in homes and businesses.
- **Policy CN 1.7** Require new development to use new technology, features, equipment, and other methods to reduce water consumption.

Goal CN-2 Establish building and development standards to maximize the reclamation of water resources.

- **Policy CN 2.1** Minimize impacts to washes that convey drainage by prohibiting development within drainage corridors that are not consistent with the Master Plan of Drainage.
- **Policy CN 2.2** Encourage the use of reclaimed water for irrigation and other non-potable uses.
- **Policy CN 2.3** Protect open space areas used for recharging groundwater basins.
- **Policy CN 2.4** Continue to implement the use of reclaimed water through the City's "purple pipe" ordinances and regulations to further the use of reclaimed and treated water.
- **Policy CN 2.5** Implement the state and City laws and policies to develop retention basins for the replenishment of the underground water supply.

Policy CN 2.6 Coordinate City policies and activities with the Victor Valley Wastewater Reclamation Authority.

Goal CN-3 Minimize development and set aside necessary open space near and along the surface waters as well as those washes and other water passageways located in the City, to preserve and protect plant and animal species and their natural habitat dependent on such surface waters and waterways.

Policy CN 3.1 Monitor the development impacts on these surface water resources within the City.

Policy CN 3.2 Preserve areas within the Oro Grande Wash and un-named wash #1 that exhibit ideal native habitat in a natural state.

Safety Element

Goal SF-2 Minimize injury, loss of life, property damage and economic and social disruption caused by flooding and inundation hazards.

Policy SF 2.1 The City shall continue enforcing the City's Municipal Code provisions for flood hazard reduction (Title 8: Safety, Chapter 8.28: Flood Hazard Protection and Regulations). This code, which applies to new construction and existing projects undergoing substantial improvements, provides construction standards that address the major causes of flood damage and includes provisions for anchoring, placement of utilities, raising floor elevations, using flood-resistant construction materials, and other methods to reduce flood damage.

Policy SF 2.2 The City will require that new discretionary development proposals include, as a condition of approval, hydrological studies prepared by a state-certified engineer with expertise in this area, that assess the impact that the new development will have on the flooding potential of existing development down-gradient. The studies shall provide mitigation measures to reduce this impact to an acceptable level. Single-family residences on existing lots shall be exempt.

Policy SF 2.3 The City shall continue participation in the National Flood Insurance Program and require that all owners of properties located within the 100-year floodplain (Zones A and AE), and repeat-flood properties in Zone X purchase and keep flood insurance for those properties.

Policy SF 2.4 The City will continue to participate in the Storm Ready Program with the National Weather Service, including the monitoring of precipitation and snow levels on the mountains to the south, providing storm watches and warnings in real-time, and issuing evacuation notices for affected neighborhoods in a timely manner, such as with a citizen notification or similar system.

Policy SF 2.5 The City will not permit any new facilities that use or store hazardous materials in quantities that would place them in the State's TRI or SQG databases to be located in the flood zone (Zones A, AE, and X), unless all standards of elevation, anchoring, and flood-proofing have been implemented to the satisfaction of the City's Building Department and the San Bernardino County Fire Department. The hazardous materials shall be stored in watertight containers that are not capable of floating or similar flood-proof receptacles or tanks.

Policy SF 2.6 The City will require all essential and critical facilities (including but not limited to essential City offices and buildings, medical facilities, schools, child care centers, and nursing homes) in or within 200 feet of Flood Zones A, AE and X, or the dam inundation pathways, to develop disaster response and evacuation plans that address the actions that will be taken in the event of flooding or inundation due to catastrophic failure of a dam.

Policy SF 2.7 The City will regulate development in drainages, especially in Flood Zones A and AE, pursuant to FEMA regulations.

Policy SF 2.8 The City will continue to maintain, and improve where needed, the storm drain systems, with an emphasis on those areas of the City that flood repeatedly. This entails maintaining and regularly cleaning the storm drains and other flood-control structures in low-lying areas, as necessary, such that floodwaters can be effectively conveyed away from structures.

Policy SF 2.9 The City will identify repetitive flood properties in the City and develop feasible mitigation options for these sites. Funding to implement the mitigation measures may be available through FEMA Hazard Mitigation Grant and Flood Mitigation Assistance Programs and their Predisaster Mitigation Program.

Policy SF 2.10 The City will encourage the development of areas in the floodplains as parks, nature trails, equestrian parks, golf courses, or other types of recreational facilities that can withstand periodic inundation, and will offer incentives to developers to retain these areas as open space.

Goal: SF-5 Plan for emergency response and recovery from natural disasters, especially from flooding, fire, and earthquakes, and from civil unrest that may occur following a natural disaster.

Policy SF 5.1 The City will maintain, update and adopt on a regular basis, as mandated by FEMA, a Local Hazard Mitigation Plan.

Erosion and Sediment Control Plan

For projects that would include soil disturbance during construction, project applicants must submit an Erosion and Sediment Control Plan (ESCP) for approval to the City of Hesperia. The City will not issue a grading or building permits until the ESCP for the project is approved. The goals of the ESCP are as follows:

1. Identify potential pollutant sources that may affect the quality of stormwater runoff and prevent non-stormwater discharges from the construction site.
2. Document the BMPs that will be implemented to prevent, to the maximum extent practicable, construction site pollutants from leaving the site during all phases of construction.
3. Document erosion control, sediment control, and good housekeeping BMPs that shall be implemented year-round as appropriate based on construction activities.

4.8.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to hydrology and water quality are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to the Project would occur if the Project would:

A. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater 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 off-site.
    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.
F. Result in cumulatively considerable hydrological or water quality impacts.

Thresholds C(I) and D were analyzed in the Initial Study (Appendix A) and were not carried forward for further analysis in this EIR. See Chapter 5, Effects Found Not To Be Significant, for additional detail.

4.8.4 Impacts Analysis

Threshold A: Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Short-Term Construction Impacts

Less-than-Significant Impact. The Project is located in an undeveloped area of the City. As such, the implementation of the Project would represent a more intense use of the Project site as compared to existing conditions. In addition, as previously discussed in Section 4.7, water quality could be impacted by contaminated soils encountered during construction activities. However, implementation of MM-HAZ-1 would require the proper removal and disposal of refuse and would address any potential impacts to soil, surface waters, and groundwater from contaminated soils on or near the Project site.

Construction activities within the Project site could result in the incidental release of non-sediment-related pollutants including construction materials (e.g., paint, stucco), chemicals, liquid products, and petroleum products used in building construction or the maintenance of heavy equipment.

The City of Hesperia is a co-permittee under the San Bernardino County Municipal NPDES MS4 permit. The NPDES MS4 Permit requires the City to implement a Construction Site Stormwater Runoff Control Program in accordance

with the regional SWMP for the Mojave River Watershed (County of San Bernardino 2003). The SWMP requires permittees to implement and enforce measures to reduce pollutants from construction activities that result in a land disturbance of greater than or equal to 1 acre (City of Hesperia 2010a). To comply with the regulatory requirements of the SWMP, the City requires the implementation of an ESCP for projects that include soil disturbance during construction within the City. Implementation of an ESCP would ensure that construction-related BMPs are enacted to prevent, to the maximum extent practicable, construction site pollutants from leaving the site during all phases of construction. In addition to an ESCP, implementation of a WQMP in accordance with the Mojave River Watershed Technical Guidance Document for Water Quality Management Plans (County of San Bernardino 2016), would ensure that stormwater treatment and conveyance would be sufficient prior to Project build-out (Appendix I). Submittal, review, and approval of both the WQMP and ESCP by the City are necessary prior to the issuance of grading permits for Project development.

Under the NPDES MS4 Permit, the development of 1 acre or more of land must file a notice of intent with the SWRCB to comply with the State NPDES General Construction Permit. Implementation of this Permit would require the development of a site-specific SWPPP for construction activities. The SWPPP is required to identify BMPs that protect stormwater runoff and ensure avoidance of substantial degradation of water quality. Typical BMPs that could be incorporated into the SWPPP to protect water quality include the following:

- Diverting off-site runoff away from the construction site
- Vegetating landscaped/vegetated swale areas as soon as feasible following grading activities
- Placing perimeter straw wattles to prevent off-site transport of sediment
- Using drop inlet protection (filters and sandbags or straw wattles), with sandbag check dams within paved areas
- Regular watering of exposed soils to control dust during construction
- Implementing specifications for construction waste handling and disposal
- Using contained equipment wash-out and vehicle maintenance areas
- Maintaining erosion and sedimentation control measures throughout the construction period
- Stabilizing construction entrances to avoid trucks from imprinting soil and debris onto adjoining roadways
- Training, including for subcontractors, on general site housekeeping

Incorporation of required BMPs for materials and waste storage and handling, and equipment and vehicle maintenance and fueling would reduce the potential discharge of polluted runoff from construction sites, consistent with the State NPDES General Construction Permit, the Hesperia Municipal Code, and CALGreen requirements. Compliance with existing regulations would prevent violation of water quality standards and minimize the potential for contributing sources of polluted runoff. Compliance with existing regulations would ensure that the Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface quality from construction activities. Therefore, short-term construction impacts associated with water quality standards and waste discharge requirements would be less than significant.

Long-Term Operational Impacts

Less-than-Significant Impact. As previously discussed, the Project site currently consists of undeveloped land that has been moderately disturbed in the past from illegal dumping, trespassing, and unpermitted off-road vehicle use. Implementation of the Project would result in the construction of three industrial/warehouse buildings and associated office spaces, surface parking, and loading areas. The northwesternmost building, Building 1, would be approximately 1,567,317 square feet, the southernmost building, Building 2, would be 2,065,987 square feet, and

the northeasternmost building, Building 3, would be 112,125 square feet, for a total of 3,745,429 square feet. As a result, future uses on-site that could contribute pollutants to stormwater runoff in the long term include uncovered parking areas (through small fuel and/or fluid leaks), uncovered refuse storage/management areas, landscape/open space areas (if pesticides/herbicides and fertilizers are improperly applied), and general litter/debris (e.g., generated during facility loading/unloading activities). During storm events, the first few hours of moderate to heavy rainfall could wash a majority of pollutants from the paved areas where, without proper stormwater controls and BMPs, those pollutants could enter the municipal storm drain system before eventually being discharged into the Oro Grande Wash and eventually the Mojave River. Between periods of rainfall, surface pollutants tend to accumulate, and runoff from the first significant storm of the year ("first flush") would likely have the largest concentration of pollutants.

The NPDES MS4 Permit requires the City to implement a Post-Construction Storm Water Management Program in accordance with the regional SWMP. This Program sets limits of pollutants being discharged into waterways and requires all new development to incorporate structural and non-structural BMPs to improve water quality. To meet the requirements of the SWMP, the City requires the incorporation of LID features into new development and redevelopment projects as specified in the Mojave River Watershed Technical Guidance Document for Water Quality Management Plans. In accordance with the NPDES permit, the City is responsible for monitoring WQMPs, which address stormwater pollution from new private development. Site-specific WQMPs for individual projects must incorporate the SWRCB required minimum Runoff Capture BMPs. In addition, the WQMP specifies the minimum required LID features, as well as the BMPs that must be used for a designated project.

Project design, construction, and operation would be completed in accordance with the NPDES MS4 permit and the *Mojave River Watershed Technical Guidance Document for Water Quality Management Plans,* with the goal of reducing the number of pollutants in stormwater and urban runoff. The Project-specific Mojave River Watershed Preliminary Water Quality Management Plan for Hesperia Commerce II Center (Appendix I) determined that the infiltration/detention of stormwater would be sufficient to address on-site stormwater water quality-related issues.

Post-construction, the Project area would be divided into four Drainage Management Areas (DMA), including DA1- DMA A, DA1-DMA B, DA1-DMA C, and DA1-DMA D, as shown in Figure 4.8-4, Proposed Drainage Conditions. Each DMA would be designed to convey runoff via sheet flows away from buildings and where feasibly possible, through below-grade, landscaped areas prior to entering the nearest catch basin. The landscaped areas would act as the first filter for detaining suspended solids in stormwater flows. The runoff would then be routed to two, on-site, above-ground, earthen basins, which would be designed to infiltrate and retain stormwater generated by the 2-year through 100-year, 24-hour storm event. In accordance with the San Bernardino County Hydrology Manual, the infiltration/retention basin system would be designed to treat water quality for a 2-year, 24-hour storm event, and sized to accommodate the volumes and flow rates of a 100-year, 24-hour storm event. The infiltration/retention basins would be located in the northeast portion of the Project site and would serve as the final destination for all runoff produced within the Project's boundaries. Concrete forebays or riprap would accumulate a majority of the trash and sediment within the stormwater prior to entering the earthen basins. Stormwater within the infiltration basin would infiltrate through the bottom of the basin into the underlying soils over a 72-hour period. Flows exceeding the design capacity of the infiltration basin would be permitted to discharge through an emergency spillway into the nearby Oro Grande Wash by means of a 96-inch-diameter storm drain pipe located under Yucca Terrace Drive (Appendix I). Because any storm water flows that would be discharged into Oro Grande Wash would have passed through the Project's engineered stormwater system, which would be designed consistent with the Mojave River Watershed Preliminary Water Quality Management Plan for Hesperia Commerce II Center (Appendix I), stormwater flows would not degrade downstream water quality contribute substantial amounts of sediment downstream.

Non-structural BMPs would include the regular sweeping and cleaning of existing trash enclosures, docking areas, and paved areas throughout the Project site, the training of all maintenance contractors in stormwater BMP implementation, and the monthly inspection of all catch basins during the rainy season (October through May) as well as before and after each storm to ensure efficient operation. The on-site catch basin inspections would be done by a qualified landscape contractor, who would inspect and clean out any accumulation of trash, litter, and sediment from the basins as well as would check for evidence of illegal dumping of waste materials into on-site drains (Appendix I).

Implementation of these LID features and BMPs would, to the maximum extent practicable, reduce the discharge of pollutants into receiving waters, including inadvertent release of pollutants (e.g., hydraulic fluids and petroleum); improper management of hazardous materials; trash and debris; and improper management of portable restroom facilities (e.g., regular service), in accordance with all relevant local and state development standards. In accordance with CalGreen requirements, Project source controls to improve water quality would be provided for outdoor material storage areas, outdoor trash storage/waste handling areas, and outdoor loading/unloading areas.

With respect to groundwater quality, stormwater to be collected and treated in filtration basins, which would allow for stormwater flows to infiltrate soils and recharge groundwater. The structural BMPs, which include layers of engineered soil media, would treat stormwater flows prior to infiltration, ensuring that flows infiltrating groundwater aquifers do not result in adverse effects to groundwater quality. Moreover, flows entering these structural BMPs, if implemented as infiltration locations, would be typical of runoff collected from a commercial development and would not contain substantial quantities of pollutants that could not be appropriately treated by the proposed BMPs. Therefore, long-term operational impacts associated with water quality standards and waste discharge requirements would be less than significant.

LEGEND:

- SUB DRAINAGE AREA BOUNDARY
- DRAINAGE AREA BOUNDARY
- STORM DRAIN
- FLOW PATH
- PROPOSED FLOW DIRECTION ARROW
- X / XXX — DRAINAGE AREA DESIGNATION / AREA (AC)
- 1.0 — REACH NUMBER
- A=3.0 — SUB-DRAINAGE AREA (AC)
- BMP SYSTEMS (UNDERGROUND CMP, DETENTION/RETENTION BASIN
- BUILDINGS
- LANDSCAPE

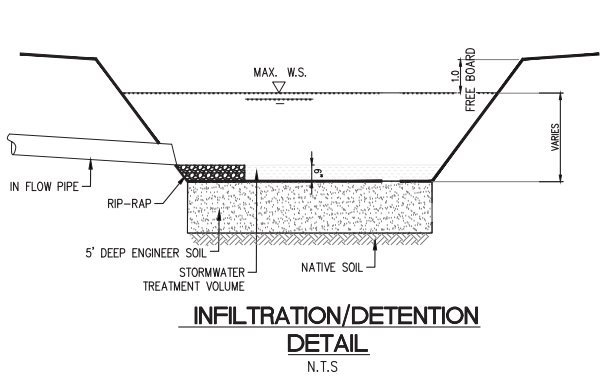
HYDROLOGY INFORMATION

SITE AREA 1: 185 ACRE
SOIL GROUP: A (PER SBC SOIL GROUP MAP FIGURE C-15)
ISOHYETALS: 1.29" (100-YEAR 1 HOUR)
0.448" (2-YEAR 1 HOUR)
CN NUMBER: 32 (SOIL GROUP A)

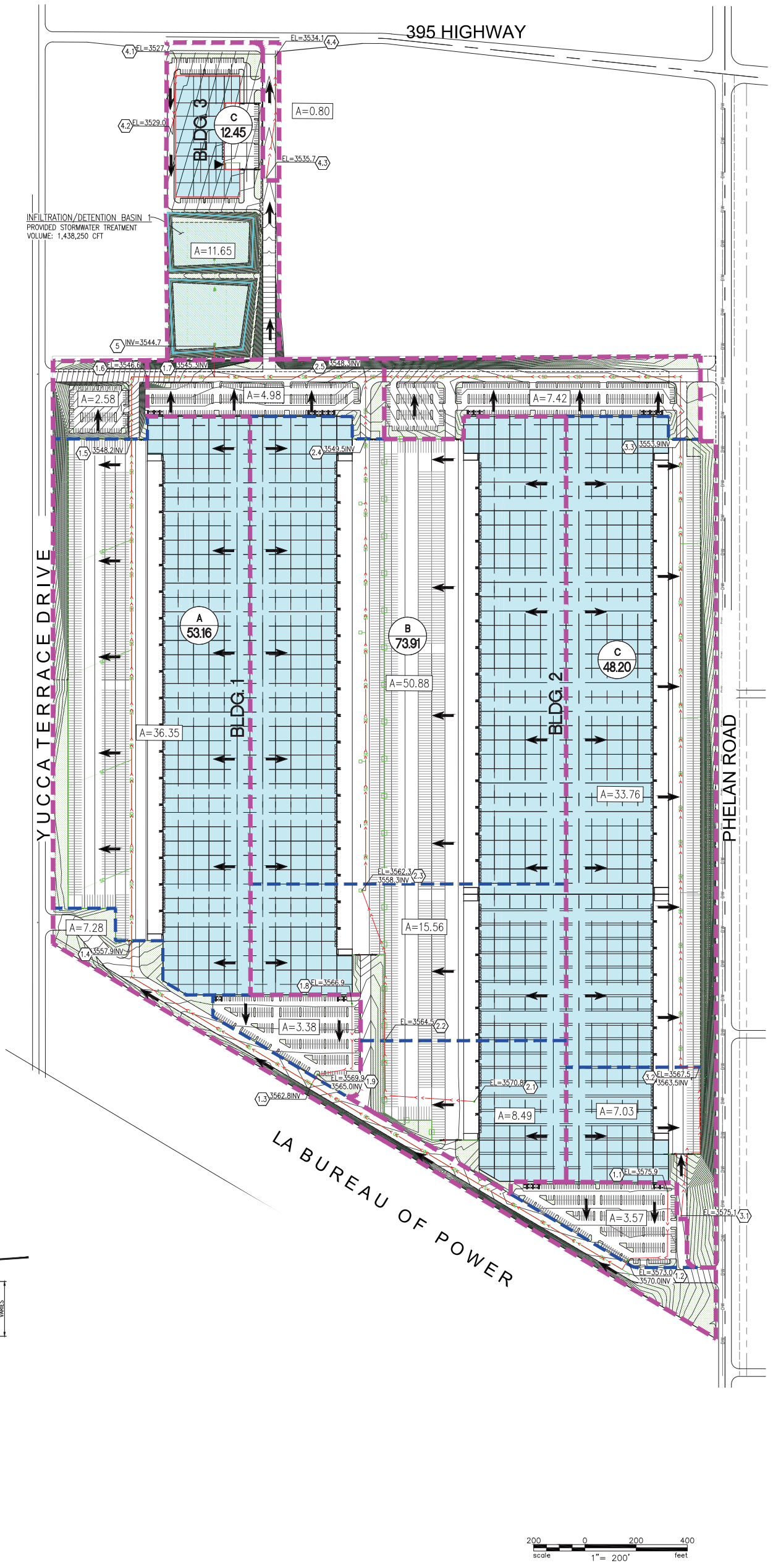
FREQUENCY: 100 YEAR (FOR STORM DRAIN DESIGN)
2 YEAR (FOR STORMWATER QUALITY)
METHOD: SAN BERNARDINO COUNTY HYDROLOGY MANUAL

HYDROLOGY SUMMARY

DRAINAGE AREA No.	TRIBUTARY AREA (AC)	IMPERVIOUS RATIO	REQUIRED 90% VOLUME (Δ POST-PRE (CFT)	TOTAL PROVIDED VOLUME (CFT)
DA1-DMA A	53.16	0.15	907,083	1,438,250
DA1-DMA B	71.42	0.04		
DA1-DMA C	48.20	0.16		
DA1-DMA D	12.45	0.51		



INFILTRATION/DETENTION DETAIL
N.T.S



SOURCE: WestLAND Group 2019

FIGURE 4.8-4
Proposed Drainage Conditions
Hesperia Commerce Center II

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Threshold B: Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?

Groundwater Recharge

Less-than-Significant Impact. The Project site is underlain by the Upper Mojave River Valley Groundwater Basin. Currently, the Project site is undeveloped and pervious to substantive groundwater recharge. The development of the Project site would result in a substantial increase in impermeable surfaces, which could impede groundwater recharge. However, the Project would incorporate LID features, including infiltration/retention systems designed to retain 90% of the difference of volume produced between post- and pre-developed conditions of on-site stormwater runoff during a 100-year, 24-hour storm event (Table 4.8-2, Proposed Hydrology Summary). Detained stormwater would infiltrate through the bottom of the infiltration basins and into the underlying soils. In addition, the infiltration basins would be sized to exceed 90% of the difference in stormwater of the existing and proposed conditions such that there would be no substantial change in on-site infiltration rates. Because the Project would meet and exceed infiltration requirements, stormwater would continue to be able to infiltrate soils and recharge the underlying Upper Mojave River Valley Groundwater Basin. Therefore, impacts associated with groundwater recharge would be less than significant.

Table 4.8-2. Proposed Hydrology Summary

Drainage Area No.	Tributary Area (Acres)	Impervious Ratio	Volume of 100-Year, 24-Hour Storm Event (Cubic Feet)	Required 90% Volume (Δ Post-Pre) (Cubic Feet)	Total Provided Volume (Cubic Feet)
DMA A	53.16	0.15	3,640,889	907,083	1,438,250
DMA B	71.42	0.04			
DMA C	48.20	0.16			
DMA D	12.45	0.51			

Source: Appendix I

Groundwater Supply

Less-than-Significant Impact. Hesperia Water District estimates that it currently (i.e., in 2020) receives approximately 88.0% of its water from groundwater, 5.5% from purchased water, and 6.5% from recycled water (Hesperia Water District 2016). Regarding the portion of the District's water supply that originates as groundwater, the District receives water from sixteen active wells within the City, the entirety of which is located within Alto Subarea sub basin of the Mojave River Groundwater Basin. The Mojave River Ground Water Basin is adjudicated basin and thus has a managed groundwater extraction rate (Hesperia Water District 2016). The Mojave Water Agency serves as the entity responsible for managing the use, replenishment, and protection of the groundwater basin. The Mojave Water Agency and other retail water purveyors, including Hesperia Water District, to use imported State Water Project Water to replenish the Upper Mojave Water Basin as part of the Regional Recharge and Recovery Project (also referred to as the "R3" project). This practice further assists regional water providers in sustainable management of the Mojave Groundwater Basin.

The Hesperia Commerce Center II development is estimated to result in an increase in potable water demand of 112,710 gallons per day (gpd), which is equivalent to approximately 126 acre-feet per year. A WSA was prepared for the Project and includes a comprehensive assessment of historical demands and a projection of future demands

based on forecasted development of the remaining developable lands within the City's water service area. The WSA is included as Appendix L. The WSA concluded that, "the total projected water supplies available to Hesperia Water District during normal, single-dry, and multiple-dry water years over the next 20 years would be sufficient to meet the projected water demands for the proposed project." For additional detail, refer to Section 4.11, Utilities and Service Systems.

In addition, as long-term water supply is a significant concern in California, Hesperia Water District has planned projects to meet future water demands for its service area. For example, to improve water efficiency and conserve vital potable water resources, such as groundwater, Hesperia Water District, in cooperation with Victor Valley Water Reclamation Agency plans to expand the local water recycling facility's treatment capacity as well as plans to build an additional water recycling facility. The City of Hesperia also plans to construct multiple recharge basins in cooperation with Mojave Water Agency to deliver and recharge State Water Project water into underlying groundwater basins within the Hesperia Water District's service area (Hesperia Water District 2016). These activities would ensure that groundwater is sustainably replenished as to not result in the overdraft in any basin within Hesperia Water District's service area. These projects, when coupled with regional groundwater management plans and the regulatory bindings of the groundwater basin, would ensure that the service area as a whole attains sustainable groundwater management. The Project would not substantially decrease groundwater supplies and would not impede sustainable groundwater management of the basin. Therefore, impacts associated with groundwater supplies would be less than significant.

Threshold C: Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

> ***Threshold C(II) : substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;***
>
> ***Less-than-Significant Impact.*** Although internal drainage patterns would be somewhat altered as a result of Project development, the Project would maintain adequate stormwater conveyance as to not result in an increase of surface runoff in a manner that would result in flooding on- or off-site. As previously discussed, the Project site would be divided into four DMAs (Figure 4.8-4, Proposed Drainage Conditions). Each DMA would be designed to convey runoff as sheet flows away from buildings, and where feasibly possible, through below-grade, landscaped areas prior to entering the nearest catch basin. The landscaped areas would act as the first filter for any suspended solids that could potentially clog the storm drain system. The runoff would then be routed to two, above-ground, earthen, infiltration basins, which would serve as the final destination for all runoff produced on the Project site. The infiltration basins would be outfitted with a concrete forebay or riprap, which would slow runoff prior to entering the infiltration/retention basins, allowing any remaining suspended solids to separate out and reducing the potential for sediment clogging and erosion to occur. Stormwater within the basins would infiltrate through the bottom of the basin and into the underlying soils over a period of 72 hours.
>
> The Project-specific Preliminary Drainage Report (Appendix I) includes an existing (Table 4.8-1, Existing Hydrology Summary) and proposed condition hydrologic analysis (Table 4.8-2, Proposed Hydrology Summary) to determine whether the post-construction runoff would have any impact on receiving waterways (i.e., Oro Grande Wash, Mojave River). In accordance with the San Bernardino County Hydrology Manual, the rational method and unit hydrograph was used to calculate the 2-year, 10-year, and 100-year, 24-hour storm peak discharges for the existing and Project conditions.

The infiltration/retention system would be sized in accordance with the *San Bernardino County Hydrology Manual*, which requires the Project site to retain 90% of the difference of volume produced between Post-Developed and Pre-Developed Conditions for the 100-year, 24-hour storm event. The 100-year storm would produce approximately 3,640,889 cubic feet of stormwater in post-development conditions, and approximately 2,633,019 in pre-developed conditions. The difference in pre- and post-developed conditions is 1,007,870 cubic feet and 90% of this value would be 907,083 cubic feet. However, the on-site infiltration/retention system would be sized to accommodate approximately 1,438,250 cubic feet of stormwater, exceeding the difference of post- and pre-developed conditions. Any exceeding the design capacity of the infiltration basins would be permitted to discharge through a storm drain line into the nearby Oro Grande Wash by means of a 96-inch-diameter storm drain, located under Yucca Terrace Drive (Appendix I).

Based on this analysis, the stormwater system would be designed to retain and infiltrate, at a minimum, 90% of the difference between proposed and existing stormwater discharges for the 100-year, 24-hour storm event flows on-site, and in a manner that would not result in flooding on- or off-site. Because the Project's would be designed to meet and exceed the stormwater requirements set forth in the *San Bernardino County Hydrology Manual*, the Project would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site. Therefore, impacts associated with flooding on or off site would be less than significant.

Threshold C(III): create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

Less-than-Significant Impact. As previously discussed in Threshold A, the proposed drainage system would be designed to convey runoff in compliance with the City of Hesperia and the County of San Bernardino WQMP and SWMP requirements. In addition, the Project would incorporate LID features, including down-graded vegetated landscapes, forebays designed to accumulate sediment and trash, and on-site infiltration/retention basins. Collectively, these LID features would lower the potential of the incidental releases of contaminants to the environment such as oil, grease, nutrients, heavy metals, and certain pesticides, including legacy pesticides. As a result, the Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Therefore, impacts associated with stormwater drainage systems capacity and polluted runoff sources would be less than significant.

Threshold C(IV): impede or redirect flood flows?

Less-than-Significant Impact. The Project site is located in Zone X, an area of minimal flood hazard per the FEMA FIRM panel 06071C6490H effective August 28, 2008. This area is higher in elevation than the 0.2% annual chance flood (i.e., 500-year flood). In addition, as previously discussed, although internal drainage patterns would be somewhat altered as a result of Project development, the Project would maintain adequate stormwater conveyance as to not result in an increase of surface runoff that would result in flooding on- or off-site associated with the 100-year, 24-hour storm event. Therefore, impacts associated with impeding or redirecting flood flows would be less than significant.

Threshold E: Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less-than-Significant Impact. As previously discussed, the Project would comply with applicable water quality regulatory requirements, including implementation of a SWPPP, stormwater BMPs, and LID design, which would minimize potential off-site surface water quality impacts and contribute to a reduction in water quality impacts within the overall Mojave River Watershed. In addition, with compliance with these regulatory requirements, the Project would reduce potential water quality impairment of surface waters such that existing and potential beneficial uses of key surface water drainages throughout the jurisdiction of the Mojave River Basin Plan Amendment of the Lahontan Basin Plan would not be adversely impacted. As a result, the Project would not conflict with or obstruct the Lahontan Basin Plan.

With respect to groundwater management, SGMA empowers local agencies to form GSAs to manage basins sustainably, and requires those GSAs to adopt GSPs for crucial groundwater basins in California. A GSA has not been established for the Upper Mojave River Valley Groundwater Basin, as it is not considered a medium or high priority basin. However, the basin is adjudicated, regulating the amount of groundwater extracted, reducing the potential for over-extraction. Further, the Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge and would not conflict with or obstruct a water quality control plan or sustainable groundwater management plan. Therefore, impacts associated with water quality control plans and sustainable groundwater management plans would be less than significant.

Threshold F: Would the Project result in cumulatively considerable hydrological or water quality impacts?

Water Quality

Less-than-Significant Impact. The geographic context for the analysis of cumulative impacts associated with water quality is the encompassing Mojave River Watershed. Cumulative development in the watershed could add new sources of stormwater runoff. Construction activities associated with the Project could temporarily increase the number of exposed surfaces that could contribute to sediments in stormwater runoff. Additionally, materials associated with construction activities could be deposited on surfaces and carried to receiving waters in stormwater runoff. However, all cumulative development in the watersheds would be subject to the existing regulatory requirements to protect water quality and minimize increases in stormwater runoff. For example, Part 1, Section I of the Municipal NPDES Permit requires the City of Hesperia to effectively prohibit non-stormwater discharges from within its boundaries, into that portion of the MS4 that it owns or operates. Part 2, Section 1.E of the Municipal NPDES Permit requires the City to control discharges to and from municipal sewer systems, so as to comply with the Municipal NPDES permit and to specifically prohibit certain discharges identified in the Municipal NPDES Permit.

Every two years, the Lahontan RWQCB must re-evaluate water quality within its geographic region and identify those water bodies not meeting water quality standards. For those impaired water bodies, a TMDL must be prepared and implemented to reduce pollutant loads to levels that would not contribute to a violation of water quality standards. All developments within the Mojave River Watershed are subject to the water quality standards outlined in the Mojave River Basin Plan and must comply with any established TMDLs. The continuing review process would ensure that cumulative development within the watershed would not substantially degrade water quality.

The County and cities located within San Bernardino County are co-permittees under the San Bernardino County Municipal NPDES stormwater permit. The NPDES permit sets limits on pollutants being discharged into waterways and requires that the project designer and/or contractor of all new development projects that fall under specific

project categories develop a WQMP that includes LID design requirements related to water quality. The LID features would address long-term effects on water quality within the San Bernardino County watersheds, and ensure that BMPs and LID designs minimize potential water quality concerns to the maximum extent practicable. Therefore, impacts associated with water quality standards and polluted runoff in the watersheds would be minimized, and the Project's contribution to cumulative impacts would be less than significant.

Water Supply

Less-than-Significant Impact. The development of the Project would increase land-use intensities in the area, resulting in increased water usage. The Project would be served by Hesperia Water District. As such, the development of the Project would increase the amount of water used in the Hesperia Water District's service area. Hesperia Water District 2015 UWMP estimates the annual water demand for 2020 is projected to be 14,078 acre-feet. This equates to approximately 4.6 billion gallons a year of water or 12.6 mgd. Hesperia Water District UWMP states that Hesperia Water District and other water agencies in Southern California have planned provisions for regional water for the growing population, including drought scenarios for its service area. This plan includes a new water demand forecast prepared for the major categories of demand and uses regional population, demographic projections, the dry climate, historical water use to develop these forecasts. As such, the Project would not be expected to result in increased water usage causing the need for new entitlements, resources, and/or treatment facilities that are not already being planned to accommodate regional growth forecasts.

In addition, the Project-specific WSA (Appendix L) concluded that water demand and supply for water demand and supply projections for Hesperia Water District, including the Project, demonstrate that projected supplies exceed demand through the year 2035. These projections consider land use, water development programs and projects, and water conservation. For example, Hesperia Water District, in coordination with the VVWRA, plans on expanding the Hesperia Subregional Water Recycling Facility water treatment capacity from 1.0 mgd to 2.0 mgd by 2030 as well as build a second water recycling facility within the City that would be able to treat 2.6 mgd of wastewater by 2040. The City additionally plans to construct multiple recharge basins in cooperation with Mojave Water Agency to deliver and recharge State Water Project water into underlying groundwater basins within the Hesperia Water District's service area. Collectively, these additional programs would enable water supply to exceed water demand for Cal Water Dominguez District now and into the future.

Lastly, compliance with the CALGreen Building Code would be required for new development. In addition, CALGreen Building Code standards require a mandatory reduction in outdoor water use, in accordance with the CDWR Model Water Efficient Landscape Ordinance. This would ensure that the Project does not result in wasteful or inefficient use of limited water resources and may, in fact, result in an overall decrease in water use per person. Due to water planning efforts and water conservation standards, impacts would be less than significant, and the Project's contribution to cumulative impacts would not be cumulatively considerable.

Stormwater Drainage

Less-than-Significant Impact. The geographic context for the analysis of cumulative impacts related to storm drainage is the Mojave River Watershed, which is moderately urbanized with impervious surfaces. Cumulative development within the County could potentially increase the number of impervious surfaces that could cause or contribute to storm drain system capacity exceedance, alter the existing storm drain system, and/or require the construction of new or expanded facilities. New development within the watershed would be subject to the environmental review process that would analyze potential impacts associated with stormwater runoff to the storm

drain system. New development would be subject to the completion of drainage analyses to ensure that excessive on- or off-site flooding and runoff would not occur.

Additionally, the San Bernardino Flood Control District controls and monitors flows within its system. The Project would be required to obtain a permit from the County of San Bernardino to ensure that allowable capacity flow to the Oro Grande Wash or Mojave River is not exceeded. Potential impacts to drainages associated with the Project would not contribute considerably to cumulative impacts.

4.8.5 Mitigation Measures and Level of Significance After Mitigation

Threshold A: Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

The Project would result in **less-than-significant impacts** associated with water quality standards and waste discharge requirements. No mitigation is required.

Threshold B: Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?

The Project would result in **less-than-significant impacts** with regard to substantially decreasing groundwater supplies or impeding sustainable groundwater management of the basin. No mitigation is required.

Threshold C: Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

> ***Threshold C(II): substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;***
>
> The Project would result in **less-than-significant impacts** with regard to substantially increasing the rate or amount of surface runoff in a manner which would result in flooding on or off site. No mitigation is required.
>
> ***Threshold C(III): create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or***
>
> The Project would result in **less-than-significant impacts** with regard to creating or contributing runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. No mitigation is required.
>
> ***Threshold C(IV): impede or redirect flood flows?***
>
> The Project would result in **less-than-significant impacts** with regard to impeding or redirecting flood flows. No mitigation is required.

Threshold E: Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The Project would result in **less-than-significant impacts** with regard to conflicting or obstructing implementation of a water quality control plan or sustainable groundwater management plan. No mitigation is required.

Threshold F: Would the Project result in cumulatively considerable hydrological or water quality impacts?

The Project would result in **less-than-significant cumulative impacts** with regard to resulting in a cumulative considerable hydrology and water quality. No mitigation is required.

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4.9 Noise

This section describes the existing noise conditions of the Hesperia Commerce Center II Project (Project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the Project.

In addition to the documents incorporated by reference (see Section 2.7 of Chapter 2 of this Environmental Impact Report [EIR]), the following analysis is based, in part, on the following source:

- *Noise Impact Analysis* prepared by Urban Crossroads in July 2020 (Appendix J)

4.9.1 Existing Conditions

Fundamentals of Noise

Vibrations, traveling as waves through air from a source, exert a force perceived by the human ear as sound. Sound pressure level (referred to as sound level) is measured on a logarithmic scale in decibels (dB) that represent the fluctuation of air pressure above and below atmospheric pressure. Frequency, or pitch, is a physical characteristic of sound and is expressed in units of cycles per second or hertz (Hz). The normal frequency range of hearing for most people extends from about 20 to 20,000 Hz. The human ear is more sensitive to middle and high frequencies, especially when the noise levels are quieter. As noise levels get louder, the human ear starts to hear the frequency spectrum more evenly. To accommodate for this phenomenon, a weighting system to evaluate how loud a noise level is to a human was developed. The frequency weighting called "A" weighting is typically used for quieter noise levels which de-emphasizes the low frequency components of the sound in a manner similar to the response of a human ear. This A-weighted sound level is called the "noise level" and is referenced in units of dBA.

Since sound is measured on a logarithmic scale, a doubling of sound energy results in a 3 dBA increase in the noise level. Changes in a community noise level of less than 3 dBA are not typically noticed by the human ear. Changes from 3 to 5 dBA may be noticed by some individuals who are extremely sensitive to changes in noise. A 5 dBA increase is readily noticeable (Appendix J). The human ear perceives a 10 dBA increase in sound level as a doubling of the sound level (i.e., 65 dBA sounds twice as loud as 55 dBA to a human ear).

An individual's noise exposure occurs over a period of time; however, noise level is a measure of noise at a given instant in time. Community noise sources vary continuously, being the product of many noise sources at various distances, all of which constitute a relatively stable background or ambient noise environment. The background, or ambient, noise level gradually changes throughout a typical day, corresponding to distant noise sources, such as traffic volume, as well as changes in atmospheric conditions.

Noise levels are generally higher during the daytime and early evening hours when traffic (including airplanes), commercial, and industrial activity is the greatest. However, noise sources experienced during nighttime hours when background levels are generally lower can be potentially more conspicuous and irritating to the receiver. In order to evaluate noise in a way that considers periodic fluctuations experienced throughout the day and night, a concept termed "community noise equivalent level" (CNEL) was developed, wherein noise measurements are weighted, added, and averaged over a 24-hour period to reflect magnitude, duration, frequency, and time of occurrence. A complete definition of CNEL and other terminology used to describe noise is provided in Table 4.9-1.

Table 4.9-1. Definitions of Acoustical Terminology

Term	Definition
Decibel (dB)	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of two like quantities
Sound Pressure Level (SPL)	10 times the logarithm to the base 10 of the ratio between the square of the sound to the square of the reference sound pressure of 20 µPascals. Sound pressure level is the quantity that is measured by a sound level meter, expressed in dB.
Frequency (Hz)	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz.
A-Weighted Sound Level (dBA)	SPL in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de- emphasizes low and high frequency components of frequency components of sound in a manner similar to the frequency response of the human ear and correlates well with subjective response to sound. All sound levels in this report are A-weighted.
Noise	Unwanted sound.
Equivalent Sound Level (Leq)	The average A-weighted sound level during the measurement period. For this CEQA evaluation, Leq refers to a one-hour period unless otherwise stated.
L_{max}, L_{min}	The maximum and minimum A-weighted sound level during the measurement period.
L_{01}, L_{10}, L_{50}, L_{90}	The A-weighted sound levels that are exceeded l%, l0%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level (L_{dn})	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured during the night between 10:00 p.m. and 7:00 a.m.
Community Noise Equivalent Level (CNEL)	The average A-weighted sound level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 p.m. to 10:00 p.m. and after addition of 10 decibels to sound levels during the night between 10:00 p.m. and 7:00 a.m.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Impulsive Noise	Noise loud enough to disrupt normal activities and usually lasting less than one second.

Exterior Noise Distance Attenuation

Noise sources are classified in two forms: (1) point sources, such as stationary equipment or a group of construction vehicles and equipment working within a spatially limited area at a given time, and (2) line sources, such as a roadway with a large number of pass-by sources (motor vehicles). Sound generated by a point source typically diminishes (attenuates) at a rate of 6.0 dBA for each doubling of distance from the source to the receptor at acoustically "hard" sites and at a rate of 7.5 dBA for each doubling of distance from source to receptor at acoustically "soft" sites. Sound generated by a line source (i.e., a roadway) typically attenuates at a rate of 3 dBA and 4.5 dBA per doubling distance, for hard and soft sites, respectively. Sound levels can also be attenuated by man-made or natural barriers. For the purpose of sound attenuation discussion, a "hard" or reflective site does not provide any excess ground-effect attenuation and is characteristic of asphalt or concrete ground surfaces, as well as very hard-packed soils. An acoustically "soft" or absorptive site is characteristic of unpaved loose soil or vegetated ground.

Fundamentals of Vibration

Vibration is an oscillatory motion that can be described in terms of displacement, velocity, or acceleration. The response of humans to vibration is very complex. However, it is generally accepted that human response is best approximated by the vibration velocity level associated with the vibration occurrence.

Heavy equipment operation, including stationary equipment that produces substantial oscillation or construction equipment that causes percussive action against the ground surface, may be perceived by building occupants as perceptible vibration. It is also common for groundborne vibration to cause windows, pictures on walls, or items on shelves to rattle. Although the perceived vibration from such equipment operation can be intrusive to building occupants, the vibration is seldom of sufficient magnitude to cause even minor cosmetic damage to buildings.

When evaluating human response, groundborne vibration is usually expressed in terms of root mean square (RMS) vibration velocity. RMS is defined as the average of the squared amplitude of the vibration signal. As for sound, it is common to express vibration amplitudes in terms of decibels defined as:

$$L_v = 20 \log \left(\frac{v_{rms}}{v_{ref}} \right)$$

Where vrms is the RMS vibration velocity amplitude in inches/second and vref is the decibel reference of 1x10-6 inches/second.

To avoid confusion with sound decibels, the abbreviation VdB is used for vibration decibels. The vibration threshold of perception for most people is around 65 VdB (which is equivalent to 0.0018 in/sec RMS). Vibration levels in the 70 to 75 VdB range are often noticeable, but generally deemed acceptable, and levels in excess of 80 VdB are often considered unacceptable (Appendix J).

Vibration impacts to buildings are generally discussed in terms of peak particle velocity (PPV) that describes particle movement over time (in terms of physical displacement of mass, expressed as inches/second or in/sec). Groundborne vibration generated by construction projects is usually highest during pile driving, rock blasting, soil compacting, jack hammering, and demolition-related activities. Next to pile driving and soil compacting, grading activity has the greatest potential for vibration impacts if large bulldozers, large trucks, or other heavy equipment are used. A conservative maximum vibration level standard is 0.2 in/sec PPV for the prevention of structural damage to typical residential buildings (Appendix J).

Existing Noise Conditions

The Project site currently consists of vacant land in a generally undeveloped rural area. The site is located immediately west of U.S. Highway 395, north of Phelan Road, and south of Yucca Terrace Drive in the City of Hesperia. Residential properties are located to the northwest, west, and south of the Project, as well as approximately 2,200 feet to the east; the closest existing residences are located at distances from 200 feet to 630 feet from the subject property boundaries. Commercial properties are located along Yucca Terrace Drive and Phelan Road.

Existing noise levels were measured at the Project site boundaries and nearest noise-sensitive receptors in order to establish baseline noise conditions against which to compare Project operational noise levels, as shown in Figure 4.9-1, Noise Measurement Locations. A total of six long-term noise measurements were performed; one near the single-family residence to the northwest, one at the vacant land to the northeast, one within the multifamily residential neighborhood

along to the east, one near the single-family residence to the south of Phelan Road, and two at the single-family residences along Monte Vista to the west. Sound-level measurements were performed using Piccolo 2 Models (ANSI Type II). ANSI Type II sound-level meters have sufficient accuracy to be used for environmental noise evaluation. The sound-level meters were calibrated before the long-term measurements using a Larson Davis calibrator, Model CAL 150.

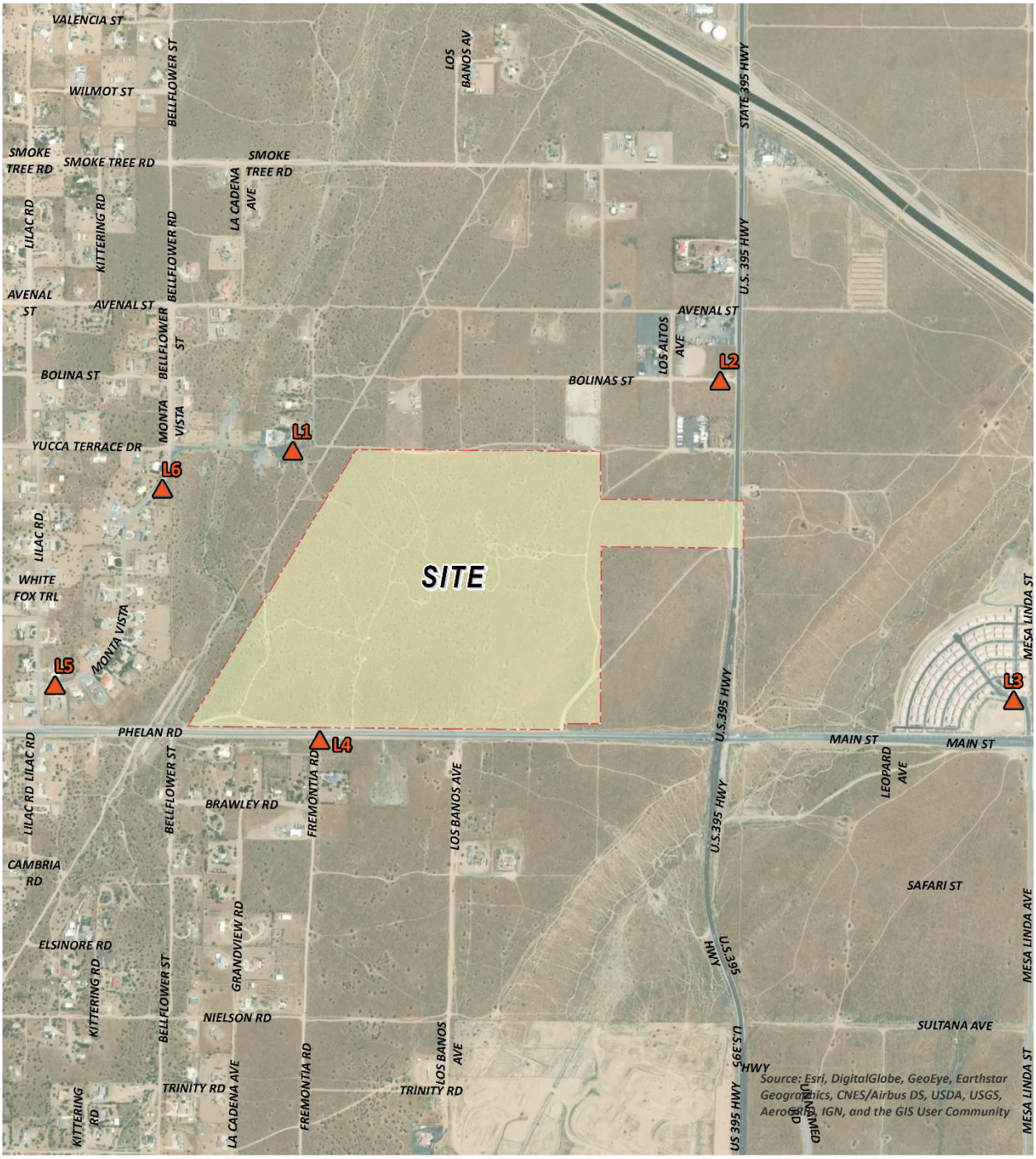
Table 4.9-2 summarizes the dates and locations for each long-term measurement, as well as the measured average sound level (Leq) for both daytime and nighttime and calculated 24-hour weighted average noise level (CNEL). See Appendix J for field data sheets for each of the long-term measurement periods.

Table 4.9-2. Existing Ambient Noise Measurement Results

Location	Description	Energy Average Noise Level (dBA Leq)		CNEL
		Daytime	*Nighttime*	
L1	Located northwest of the Project site on Yucca Terrace Drive near existing single-family residential home at 10120 Fremontia Road.	54.7	54.9	61.2
L2	Located northeast of the Project site on Bolinas Street near existing Vacant Land.	58.8	58.9	65.2
L3	Located east of the Project site on Mesa Linda Street near the West Main Villas multifamily homes.	59.1	59.2	65.5
L4	Located south of the Project site on Phelan Road near existing single-family residential home at 9565 Fremontia Road.	70.6	71.6	75.4
L5	Located west of the Project site on Monta Vista near existing single-family residential home at 9751 Monta Vista.	52.8	54.1	57.2
L6	Located west of the Project site on Monta Vista near existing single-family residential home at 10040 Monta Vista.	50.4	51.5	55.1

Source: Appendix J.

As shown in Table 4.9-2, existing noise levels on site, and immediately adjacent to neighboring residential land uses, are well within the City's "normally acceptable" maximum exterior noise exposure limit of 50 - 60 dBA CNEL as well as the "conditionally acceptable" maximum exterior noise exposure limit of 55 – 70 dBA CNEL for residential land uses; however, L4 is currently above the City's exterior noise exposure limit for residential uses. (Refer to the subsection Local, in Section 4.9.2).



SOURCE: Urban Crossroads 2020

FIGURE 4.9-1

Noise Measurement Locations

Hesperia Commerce Center II

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4.9.2 Relevant Plans, Policies, and Ordinances

Federal

Federal Highway Administration Standards

Code of Federal Regulations Title 23, Part 772 sets procedures for the abatement of highway traffic noise and construction noise. Title 23 is implemented by the Federal Department of Transportation (DOT) Highway Administration (FHWA). The purpose of this regulation is to provide procedures for noise studies and noise abatement measures to help protect the public health and welfare, to supply noise abatement criteria, and to establish requirements for information to be given to local officials for use in the planning and design of highways. All highway projects which are developed in conformance with this regulation shall be deemed to be in conformance with the DOT-FHWA Noise Standards. Title 23 establishes a 67 dBA $L_{eq}(h)$ standard applicable to federal highway projects for evaluating impacts to land uses including residences, recreational uses, hotels, hospitals, and libraries (Title 23 Code of Federal Regulations Chapter 1, Part 772, Section 772.19).

Federal Transit Administration and Federal Railroad Administration Standards

Although the FTA standards are intended for federally funded mass transit projects, the impact assessment procedures and criteria included in the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (FTA 2006) are routinely used for projects proposed by local jurisdictions. The FTA and Federal Railroad Administration (FRA) have published guidelines for assessing the impacts of groundborne vibration associated with rail projects, which have been applied by other jurisdictions to other types of projects. The FTA measure of the threshold of architectural damage for conventional sensitive structures is 0.2 inch/second perturbation projection vector (PPV).

State

California Noise Control Act of 1973

Sections 46000 through 46080 of the California Health and Safety Code, known as the California Noise Control Act of 1973, declares that excessive noise is a serious hazard to the public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. It also identifies a continuous and increasing bombardment of noise in the urban, suburban, and rural areas. The California Noise Control Act declares that the State of California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise. It is the policy of the state to provide an environment for all Californians free from noise that jeopardizes their health or welfare.

California Noise Insulation Standards (CCR Title 24)

In 1974, the California Commission on Housing and Community Development adopted noise insulation standards for hotels, motels, dormitories, and multifamily residential buildings (24 CCR Part 2). Title 24 establishes standards for interior room noise (attributable to outside noise sources). The regulations also specify that acoustical studies must be prepared whenever a multifamily residential building or structure is proposed to be located in an area with CNEL (or L_{dn}) of 60 dBA or greater. Such acoustical analysis must demonstrate that the residence has been designed to limit intruding noise to an interior CNEL (or L_{dn}) of at least 45 dBA (24 CCR Chapter 2-35). The City of Sacramento applies the interior noise criterion of CNEL 45 dBA for single-family residences, in addition to multifamily residential structures.

Local

City of Hesperia General Plan

The Noise Element of the City of Hesperia General Plan (City of Hesperia 2010) identifies goals and policies to minimize impacts of excessive noise levels, including the following:

Goal NS-1 To achieve and maintain an environment which is free from excessive or harmful noise through identification, control, and abatement.

- **Policy NS-1.2** Control and abate undesirable sounds through the use of the land use compatibility criteria shown in Exhibit NS-1, Table NS-3, and the Municipal Code Section 16.20.125(B).
- **Policy NS-1.5** Require the design and construction of commercial, industrial, office and mixed-use structures developments with noise attenuation methods to minimize excessive noise upon noise-sensitive land uses.
- **Policy NS-1.9** Encourage commercial, industrial, office and mixed-use developments to locate loading areas, parking lots, driveways, trash enclosures, mechanical equipment, and other noisier components away from noise-sensitive land uses.
- **Policy NS-1.10** Limit the hours of construction activity in, and around, residential areas in order to reduce the intrusion of noise in the early morning and late evening hours and on weekends and holidays.
- **Policy NS-1.11** Limit delivery hours for businesses with loading areas or docks fronting, siding, or bordering or gaining access on driveways adjacent to noise-sensitive areas.
- **Policy NS-1.12** Implement nighttime and daytime on-site noise level limits to address noise generated by commercial and industrial uses where it affects abutting residential and other noise-sensitive land uses.

Goal NS-2 To achieve and maintain an environment which is free from excessive vibration.

Noise Element Acceptable Community Noise Exposure

The *City of Hesperia General Plan Noise Element* adopts the *State of California Land Use Compatibility Plan* which lists land use categories and the acceptable and unacceptable levels of community noise exposure. Residential uses are normally unacceptable in areas exceeding 70 dB CNEL; and conditionally acceptable between 55 - 70 dB CNEL for low-density single-family dwelling units, duplexes, and mobile homes, and between 60 - 70 dB CNEL for multiple-family units. Schools, libraries, hospitals, and nursing homes are treated as noise-sensitive land uses, requiring acoustical studies within areas exceeding 60 dB CNEL. Commercial/professional office buildings and industrial land uses are normally unacceptable in areas exceeding 70 dB CNEL and 75 dB CNEL, respectively; and, whereas commercial/professional office buildings are conditionally acceptable within 67 to 78 dB CNEL, industrial land uses are conditionally acceptable within 70 to 80 dB CNEL.

City of Hesperia Municipal Code

The City of Hesperia Municipal Code Chapter 16.20 General Regulations, Section 16.20.125, Noise, and Section 16.20.130, Vibration, describe the noise and vibration standards that are applicable to the various types of zoning. The following excerpts from the municipal code are applicable to the Project:

16.20.125 – Noise

A. Noise Measurement. Noise will be measured with a sound level meter, which meets the standards of the American National Standards Institute (ANSI Section S1.4-1979, Type 1 or Type 2). Noise levels shall be measured using the "A" weighted sound pressure level scale in decibels (ref. pressure = 20 micro-newtons per meter squared). The unit of measure shall be designated as dB(A). The building official shall be the noise control officer.

B. Noise Standards

1. The following table describes the noise standard for emanations from any source, as it affects adjacent properties.

Noise Standards		
Affected Land Use (Receiving Noise)	*Maximum Noise Level*	*Time Period*
A-1, A-2, R-1, R-3, and RR Zone Districts	55 dB(A)	Nighttime (10:00 p.m.–7:00 a.m.)
	60 dB(A)*	Daytime (7:00 a.m.–10:00 p.m.)
C-1, C-2, C-3, C-4, C-R, AP, and P-I Zone Districts	65 dB(A)*	Anytime
I-1 and I-2 Zone Districts	70 dB(A)*	Anytime

Note: * Due to wind noise, the maximum permissible noise levels may be adjusted so that it is no greater than 5 dB(A) above the ambient noise level.

2. No person shall operate or cause to be operated any source of sound at any location or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which causes the noise level, when measured on any other property, either incorporated or unincorporated, to exceed:

a. The noise standard for that receiving land use (as specified in subsection (B)(1) of this section) for a cumulative period of more than thirty (30) minutes in any hour; or
b. The noise standard plus five dB(A) for a cumulative period of more than fifteen (15) minutes in any hour; or
c. The noise standard plus ten dB(A) for a cumulative period of more than five minutes in any hour; or
d. The noise standard plus fifteen (15) dB(A) for a cumulative period of more than one minute in any hour; or
e. The noise standard plus twenty (20) dB(A) for any period of time.

C. If the measured ambient level exceeds any of the first four noise limit categories above, the allowable noise exposure standard shall be increased to reflect the ambient noise level. If the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under this category shall be increased to reflect the maximum ambient noise level.

D. If the alleged offense consists entirely of impact noise or simple tone noise, each of the noise levels in subsection (B)(1) of this section shall be reduced by five dB(A).

E. Exempt Noises. The following sources of noise are exempt:

1. Motor vehicles not under the control of the industrial use;
2. Emergency equipment, vehicles, and devices;
3. Temporary construction, repair, or demolition activities between seven a.m. and seven p.m. except Sundays and federal holidays.

In addition, neither the City of Hesperia General Plan 2010 nor the City of Hesperia Municipal Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers for CEQA analysis purposes. Therefore, a numerical construction threshold based on FTA Transit Noise and Vibration Impact Assessment Manual is used for analysis of daytime construction impacts. The FTA considers a daytime exterior construction noise level of 80 dBA L_{eq} as a reasonable threshold for noise-sensitive residential land use.

16.20.130 – Vibration

A. Vibration Standard. No ground vibration shall be allowed which can be felt without the aid of instruments at or beyond the lot line; nor will any vibration be permitted which produces a particle velocity greater than or equal to 0.2 inches per second measured at or beyond the lot line.

B. Vibration Measurement. Vibration velocity shall be measured with a seismograph or other instrument capable of measuring and recording displacement and frequency, particle velocity or acceleration. Readings are to be made at points of maximum vibration along any lot line next to a residential or commercial district or community industrial lot.

C. Exempt Vibrations. The following sources of vibration are not regulated by this code:

1. Motor vehicles not under the control of the industrial use;
2. Temporary construction, maintenance or demolition activities between seven a.m. and seven p.m. except Sundays and federal holidays.

4.9.3 Thresholds of Significance

Thresholds of Significance

The significance criteria used to evaluate the Project impacts related to noise are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to noise would occur if the Project would:

A. Result in 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. Result in 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 or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the Project area to excessive noise levels.

D. Would the Project result in cumulatively considerable noise impacts?

Significance Criteria

Construction Noise

The City of Hesperia Municipal Code, Section 16.20.125.E.3 exempts construction noise from its stationary-source noise level limits between 7:00 a.m. and 7:00 p.m. and at any time on Sundays and federal holidays. In addition, neither the City of Hesperia General Plan nor Municipal Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers for CEQA analysis purposes. According to the FTA, local noise ordinances are typically not very useful in evaluating construction noise. They usually relate to nuisance and hours of allowed activity, and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the impact of a construction project. Project construction noise criteria should account for the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land use. Due to the lack of standardized construction noise thresholds, the FTA provides guidelines that can be considered reasonable criteria for construction noise assessment. The FTA considers a daytime exterior construction noise level of 80 dBA Leq as a reasonable threshold for noise-sensitive residential land use. Since neither the City of Hesperia General Plan Noise Element nor the City of Hesperia Municipal Code identify any construction noise level thresholds, the FTA daytime exterior construction noise level threshold of 80 dBA Leq is used in this analysis.

Operational Noise

Noise-Sensitive Receivers and Non-Noise-Sensitive Receivers – Noise Standards

Table 4.9-3, Noise Standards for Uses by Affected Land Uses, summarizes exterior noise level standards for stationary noise sources and noise level limits for affected land uses, as listed in Section 16.20.125 of the City of Hesperia Municipal Code. Since the Project land use could potentially impact a combination of non-noise-sensitive and noise-sensitive uses in the Project study area, this noise analysis relies on the exterior noise level standards for all land uses identified by the City of Hesperia Municipal Code.

Table 4.9-3. Noise Standards for Uses by Affected Land Uses

Affected Land Use (Receiving Noise)	Maximum Noise Level	Time Period
A-1, A-2, R-1, R-3, and RR Zone Districts	55 dB(A)	Nighttime (10:00 p.m.–7:00 a.m.)
	60 dB(A)*	Daytime (7:00 a.m.–10:00 p.m.)
C-1, C-2, C-3, C-4, C-R, AP, and P-I Zone Districts	65 dB(A)*	Anytime
I-1 and I-2 Zone Districts	70 dB(A)*	Anytime

Source: City of Hesperia Municipal Code, Section 16.20.125.
Note:
* Due to wind noise, the maximum permissible noise levels may be adjusted so that it is no greater than 5 dB(A) above the ambient noise level.

Non-Noise-Sensitive Receivers – Noise Standards

As previously discussed in under "Noise Element Acceptable Community Noise Exposure", the normally acceptable exterior noise level for non-noise-sensitive land uses, such as office, commercial and professional use 70 dBA CNEL

and 75 dBA CNEL for industrial uses. Therefore, noise levels greater than 70 dBA CNEL for office, commercial and professional use or 75 dBA CNEL for industrial uses are considered conditionally acceptable according to the State of California Land Use Compatibility Plan. To determine if Project-related traffic noise level increases are significant at off-site non-noise-sensitive land uses, a barely perceptible 3 dBA criteria is used. When the without-Project noise levels are greater than the normally acceptable 70 or 75 dBA CNEL land use compatibility criteria, a barely perceptible 3 dBA or greater noise level increase is considered a significant impact since the noise level criteria is already exceeded.

Noise-Sensitive and Non-Noise-Sensitive Receivers – Project Generated Noise Level Increases

Since neither the City of Hesperia General Plan Noise Element nor the City of Hesperia Municipal Code identify any thresholds relating to increases in noise levels, the substantial noise level increase criteria are derived from the FTA *Transit Noise and Vibration Impact Assessment Manual*, summarized in Table 4.9-4 below.

Table 4.9-4. Significance of Noise Level Increases

Noise Levels Without Project Noise Level	Increase when a Significant Impact would Occur (dBA CNEL) (dBA CNEL)
< 55 dBA	5 dBA or more
55 - 60 dBA	3 dBA or more
60 - 65 dBA	2 dBA or more
> 65 dBA	1 dBA or more

Source: Appendix J.

Significance Criteria Summary

Noise impacts are considered significant if any of the following occur as a direct result of the Project. Table 4.9-5 shows the significance criteria summary matrix.

Table 4.9-5. Significance Criteria Summary

Analysis	Receiving Land Use	Condition(s)	Significance Criteria	
			Daytime	*Nighttime*
Off-Site Traffic	Noise-Sensitive	If ambient is < 55 dBA CNEL	≥ 5 dBA CNEL Project increase	
		If ambient is 55 - 60 dBA CNEL	≥ 3 dBA CNEL Project increase	
		If ambient is 60 - 65 dBA CNEL	≥ 2 dBA CNEL Project increase	
		If ambient is > 65 dBA CNEL	≥ 1 dBA CNEL Project increase	
	Office	if ambient is > 70 dBA CNEL	≥ 3 dBA CNEL Project increase	
	Industrial	if ambient is > 75 dBA CNEL	≥ 3 dBA CNEL Project increase	
Operational	Multiple	Exterior Noise Level Standards	See Table 4.9-3	
	Noise-Sensitive	If ambient is < 55 dBA L_{eq}	≥ 5 dBA L_{eq} Project increase	
		If ambient is 55 - 60 dBA L_{eq}	≥ 3 dBA L_{eq} Project increase	
		If ambient is 60 - 65 dBA L_{eq}	≥ 2 dBA L_{eq} Project increase	
		If ambient is > 65 dBA L_{eq}	≥ 1 dBA L_{eq} Project increase	
		Vibration Level Threshold	0.2 in/sec PPV	

Table 4.9-5. Significance Criteria Summary

Analysis	Receiving Land Use	Condition(s)	Significance Criteria	
			Daytime	*Nighttime*
Construction	All	Permitted hours of 7:00 a.m. to 7:00 p.m. except Sunday or a federal holiday		
		Noise Level Threshold	80 dBA L_{eq}	n/a
		Vibration Level Threshold	0.2 in/sec PPV	n/a

Source: Appendix J.

Methodology

The analysis of existing and future noise environments is based on observations, noise level measurements, and computer modeling. Existing noise levels were monitored at selected on-site and off-site locations using ANSI Type II sound level meters for general environmental noise measurement instrumentation. Traffic noise modeling involved the calculation of existing and future traffic noise levels along roadway sections where the Project would contribute additional vehicle trips, as provided by the traffic impact study, using the FHWA model. Vibration from transportation sources was not evaluated in detail because it is not common for vibration from motor vehicles traveling on paved roads to cause disturbance or substantial annoyance in these areas. The calculation of on-site operational noise was calculated from noise level data for specified mechanical equipment and outdoor noise attenuation rates.

Construction noise levels were determined using reference noise level measurements taken by Urban Crossroads Inc. to describe the typical construction activity noise levels for each stage of Project construction. For construction noise, this analysis assumed compliance with conditions specified in the City's Noise Ordinance. Specifically, prohibiting construction between the hours of 7:00 p.m. to 7:00 a.m.

To describe the Project typical construction noise levels, measurements were collected for similar activities at several construction sites. The construction equipment mix used for estimating the construction noise emissions of the Project is shown in Table 4.9-6. Notably, because detailed specific information regarding the construction equipment fleet is unknown at the time of analysis, the analysis is based on collected measurements for various construction activities at several construction sites by Urban Crossroads Inc.

Table 4.9-6. Typical Construction Reference Noise Levels

Construction Stage	Reference Construction Activity	Reference Noise Level @ 50 Feet (dBA L_{eq})	Highest Reference Noise Level (dBA L_{eq})
Demolition	Demolition Activity	67.9	71.9
	Backhoe	64.2	
	Water Truck Pass-By and Backup Alarm	71.9	
Site Preparation	Scraper, Water Truck, and Dozer Activity	75.3	75.3
	Backhoe	64.2	
	Water Truck Pass-By and Backup Alarm	71.9	
Grading	Rough Grading Activities	73.5	73.5
	Water Truck Pass-By and Backup Alarm	71.9	
	Construction Vehicle Maintenance Activities	67.5	

Table 4.9-6. Typical Construction Reference Noise Levels

Construction Stage	Reference Construction Activity	Reference Noise Level @ 50 Feet (dBA L_{eq})	Highest Reference Noise Level (dBA L_{eq})
Building Construction	Foundation Trenching	68.2	71.6
	Framing	62.3	
	Concrete Mixer Backup Alarms and Air Brakes	71.6	
Paving	Concrete Mixer Truck Movements	71.2	71.2
	Concrete Paver Activities	65.6	
	Concrete Mixer Pour and Paving Activities	65.9	
Architectural Coating	Air Compressors	65.2	65.2
	Generator	64.9	
	Crane	62.3	

Source: Appendix J.

4.9.4 Impacts Analysis

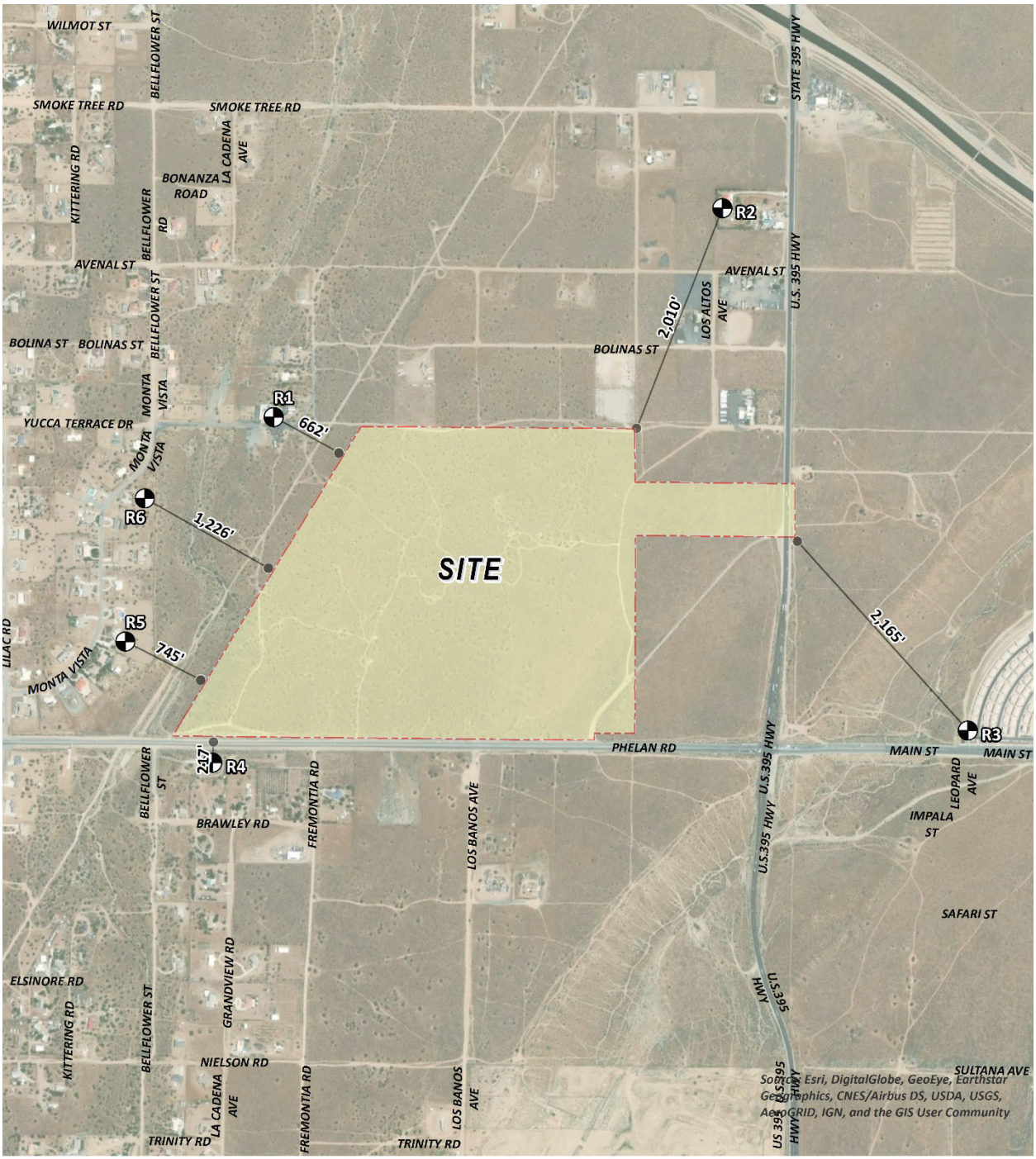
Threshold A: Would the Project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Significant and Unavoidable Impact. The Project would result in the 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, as discussed further below.

Short-Term Construction Impacts

On-Site Construction Noise

Construction of the Project would generate noise that could expose nearby receptors (i.e., residences) to elevated noise levels that may disrupt communication and routine activities. Figure 4.9-2, Noise-Sensitive Receiver Locations, identifies representative noise-sensitive receptors for analysis. The magnitude of the impact would depend on the type of construction activity, equipment, duration of the construction phase, distance between the noise source and receiver, and intervening structures. Noise from construction equipment generally exhibits point source acoustical characteristics. A point source sound is attenuated (or reduced) at a rate of 6 decibels per doubling of distance from the source for “hard site” conditions and at 7.5 decibels per doubling of distance for “soft site” conditions. These rules apply to the propagation of sound waves with no obstacles between source and receivers, such as topography (ridges or berms) or structures. Typical operating cycles may involve two minutes of full power, followed by three or four minutes at lower levels.



SOURCE: Urban Crossroads 2020

FIGURE 4.9-2

Noise-Sensitive Receiver Locations

Hesperia Commerce Center II

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Using the reference construction equipment noise levels and the CadnaA noise prediction model, calculations of the Project construction noise level impacts with multiple pieces of equipment operating simultaneously at the nearest noise-sensitive receiver locations were completed. This includes the additional noise attenuation provided by the existing intervening building structures and noise barriers located between the Project site and the nearest receiver locations.

To assess the "worst-case" construction noise levels, the Project construction noise analysis relies on the highest noise level impacts when the equipment with the highest reference noise level is operating at the closest point from the edge of primary construction activity (Project site boundary) to each receiver location. Table 4.9-7 represents "worst-case" conditions. As shown on Table 4.9-7, the construction noise levels are expected to range from 60.6 to 73.6 dBA L_{eq}, and the highest construction levels are expected to range from 64.7 to 73.6 dBA L_{eq} at the nearby receiver locations. Appendix J includes the detailed CadnaA construction noise model inputs.

Table 4.9-7. Typical Construction Equipment Noise Level Summary

Receiver Location	Construction Noise Levels (dBA L_{eq})						
	Demolition	*Site Preparation*	*Grading*	*Building Construction*	*Paving*	*Architectural Coating*	*Highest Levels*
R1	68.7	72.1	70.3	68.4	68.0	68.0	72.1
R2	61.3	64.7	62.9	61.0	60.6	60.6	64.7
R3	70.2	73.6	71.8	69.9	69.5	69.5	73.6
R4	67.3	70.7	68.9	67.0	66.6	66.6	70.7
R5	66.4	69.8	68.0	66.1	65.7	65.7	69.8
R6	62.7	66.1	64.3	62.4	62.0	62.0	66.1

Source: Appendix J.

As shown in Table 4.9-8, noise levels at nearby noise-sensitive receptors would range from approximately 64.7 dBA Leq to 73.6 dBA Leq when construction is taking place at or near the Project site boundary.

Table 4.9-8. Typical Construction Noise Level Compliance

Receiver Location	Construction Noise Levels (dBA L_{eq})		
	Highest Construction Noise Levels	*Threshold*	*Threshold Exceeded?*
R1	72.1	80	No
R2	64.7	80	No
R3	73.6	80	No
R4	70.7	80	No
R5	69.8	80	No
R6	66.1	80	No

Source: Appendix J.

The City of Hesperia exempts construction activity noise from standard exterior noise exposure limits, if conducted during specific limited daytime hours. The Noise Ordinance requires noise generating construction activities be

restricted to the hours between 7:00 a.m. and 7:00 p.m. (City of Hesperia Municipal Code Section 16.20.125). This ensures that noise-sensitive receptors are not disturbed by early morning or late night activities.

To evaluate whether the Project will generate potentially significant short-term noise levels at nearest receiver locations, a construction-related daytime noise level threshold of 80 dBA L_{eq} is used as a reasonable threshold to assess the daytime construction noise level impacts. The construction noise analysis shows that the nearest receiver locations will satisfy the reasonable daytime 80 dBA L_{eq} significance threshold during Project construction activities, as shown on Table 4.9-8. Therefore, short-term impacts associated with construction noise would be less than significant.

Long-Term Operational Noise

On-Site Operational Noise

Implementation of the Project would also result in changes to existing noise levels on the Project site by developing new stationary sources of noise, including introduction of loading docks, entry gate and truck movements, rooftop air conditioning units, and trash enclosure activity. These sources may affect noise-sensitive vicinity land uses off the Project site. The following analysis evaluates noise from exterior mechanical equipment and activities. Figure 4.9-3, Operational Noise Source Locations, identifies the representative noise source locations used to assess the operational noise levels.



SOURCE: Urban Crossroads 2020

FIGURE 4.9-3

Operational Noise Source Locations

Hesperia Commerce Center II

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To estimate the Project operational noise impacts, reference noise level measurements were collected from similar types of activities to represent the noise levels expected with the development of the Project. A detailed description of the reference noise level measurements shown on Table 4.9-9 used to estimate the Project operational noise impacts. It is important to note that the following projected noise levels assume the worst-case noise environment with the loading dock activity, entry gate and truck movements, rooftop air conditioning units, and trash enclosure activity all operating continuously. These sources of noise activity will likely vary throughout the day.

Table 4.9-9. Reference Noise Level Measurements

Noise Source	Duration (hh:mm:ss)	Ref. Distance (Feet)	Noise Source Height (Feet)	Min./Hour		Reference Noise Level (dBA L_{eq})		Sound Power Level (dBA)
				Day	*Night*	*@ Ref. Dist.*	*@ 50 Feet*	
Loading Dock Activity	00:14:00	30	8	60	60	70.1	65.7	111.5
Entry Gate and Truck Movements	00:15:00	20	8	–	–	64.0	58.0	89.7
Roof-Top Air Conditioning Units	96:00:00	5	5	39	28	77.2	57.2	88.9
Trash Enclosure Activity	00:00:32	8	5	5	5	72.7	56.8	89.0

Source: Appendix J.

Loading Docks

To describe the loading dock activities, a reference noise level measurement was collected to represent the truck activities at the Nature's Best distribution facility located at 16081 Fern Avenue in the City of Chino. The reference noise level measurement was taken in the center of the loading dock activity area and represents multiple concurrent noise sources resulting in a combined noise level of 65.7 dBA L_{eq} at a uniform distance of 50 feet. Specifically, the reference noise level measurement represents one truck located approximately 30 feet from the noise level meter with another truck passing by to park roughly 20 feet away, both with their engines idling. Throughout the reference noise level measurement, a separate docked and running reefer truck was located approximately 50 feet east of the measurement location. Additional background noise sources included truck pass-by noise, truck drivers talking to each other next to docked trucks, and air brake release noise when trucks parked.

Entry Gate and Truck Movements

An entry gate and truck movements reference noise level measurement were taken at the southern entry gate of the Motivational Fulfillment & Logistics Services distribution facility located at 6810 Bickmore Avenue in the City of Chino over a 15-minute period and represents multiple noise sources producing a reference noise level of 58.0 dBA L_{eq} at 50 feet. The noise sources included at this measurement location account for the rattling and squeaking during normal opening and closing operations, the gate closure equipment, truck engines idling outside the entry gate, truck movements through the entry gate, and background truck court activities and forklift backup alarm noise.

Consistent with the *Hesperia Commerce Center II Traffic Impact Analysis*, the Project is expected to generate a total of approximately 11,898 trip-ends per day (actual vehicles) and includes 2,368 truck trip-ends per day. This noise study relies on the actual Project trips (as opposed to the passenger car equivalents) to accurately account for the effect of individual truck trips on the study area roadway network. Using the estimated number of truck trips in combination with time of day vehicle splits, the number of entry gate and truck movements by driveway location

were calculated. As shown on Table 4.9-10, this information is then used to calculate the entry gate and truck movements' operational noise source activity based on the number of events by time of day.

Table 4.9-10. Entry Gate and Truck Movements by Location

Entry Gate and Truck Movement Location	Total Project Truck Trips	Trip Dist.		Truck Trips by Location	Time of Day Vehicle Splits			Truck Movements		
		In	*Out*		*Day*	*Evening*	*Night*	*Day*	*Evening*	*Night*
Driveway 1	2,368	20%	5%	296	63.02%	10.79%	26.19%	187	32	78
Driveway 2		15%	15%	355	63.02%	10.79%	26.19%	224	38	93
Driveway 3		25%	30%	651	63.02%	10.79%	26.19%	410	70	170
Driveway 4		40%	50%	1066	63.02%	10.79%	26.19%	672	115	279

Source: Appendix J.

Roof-top Air Conditioning Units

To assess the noise levels created by the rooftop air conditioning units, reference noise level measurements were collected from a Lennox SCA120 series 10-ton model packaged air conditioning unit. At 5 feet from the rooftop air conditioning unit, the exterior noise levels were measured at 77.2 dBA L_{eq}. At the uniform reference distance of 50 feet, the reference noise levels are 57.2 dBA L_{eq}.

Based on the typical operating conditions observed over a four-day measurement period, the rooftop air conditioning units are estimated to operate for and average 39 minutes per hour during the daytime hours, and 28 minutes per hour during the nighttime hours. These operating conditions reflect peak summer cooling requirements with measured temperatures approaching 96°F with average daytime temperatures of 82°F. For this noise analysis, the air conditioning units are expected to be located on the roof of the Project buildings. This reference noise level describes the expected rooftop air conditioning units located 5 feet above the roof for the planned air conditioning units at the Project site.

Trash Enclosures

To describe the noise levels associated with a trash enclosure activity, Urban Crossroads collected a reference noise level measurement at an existing trash enclosure containing two dumpster bins. The trash enclosure noise levels describe metal gates opening and closing, metal scraping against concrete floor sounds, dumpster movement on metal wheels, trash dropping into the metal dumpster. The reference noise levels describe trash enclosure noise activities when trash is dropped into an empty metal dumpster, as would occur at the Project site. The measured reference noise level at the uniform 50-foot reference distance is 56.8 dBA L_{eq} for the trash enclosure activity. The reference noise level describes the expected noise source activities associated with the trash enclosures for each of the Project buildings. Typical trash enclosure activities are estimated to occur for 5 minutes per hour.

On-Site Operational Noise Summary

Using the reference noise levels to represent the Project operations that include loading dock activity, entry gate and truck movements, rooftop air conditioning units, and trash enclosure activity, Urban Crossroads Inc. calculated the operational source noise levels that are expected to be generated at the Project site and the Project-related noise level increases that would be experienced at each of the noise-sensitive receiver locations.

To demonstrate compliance with local noise regulations, the Project-only operational noise levels are evaluated against exterior noise level thresholds based on the City of Hesperia exterior noise level standards at nearby noise-sensitive receiver locations. Table 4.9-11 shows the operational noise levels associated with Hesperia Commerce Center II Project will satisfy the City of Hesperia 60 dBA L_{eq} daytime and 55 dBA L_{eq} nighttime exterior noise level standards at all nearby receiver locations. Therefore, the operational noise impacts are considered less than significant at the nearby noise-sensitive receiver locations.

Table 4.9-11. Operational Noise Level Compliance

Receiver Location	Project Operational Noise Levels (dBA Leq)		Noise Level Standards (dBA Leq)		Noise Level Standards Exceeded?	
	Daytime	*Nighttime*	*Daytime*	*Nighttime*	*Daytime*	*Nighttime*
R1	53.7	53.1	60	55	No	No
R2	50.0	49.4	60	55	No	No
R3	53.9	53.1	60	55	No	No
R4	50.8	49.9	60	55	No	No
R5	50.8	50.2	60	55	No	No
R6	50.3	49.8	60	55	No	No

Source: Appendix J.

To describe the Project operational noise level increases, the Project operational noise levels are combined with the existing ambient noise levels measurements for the nearby receiver locations potentially impacted by Project operational noise sources. Since the units used to measure noise, decibels (dB), are logarithmic units, the Project-operational and existing ambient noise levels cannot be combined using standard arithmetic equations. Instead, they must be logarithmically added using the following base equation:

$$SPL_{Total} = 10\log_{10}[10^{SPL1/10} + 10^{SPL2/10} + \ldots 10^{SPLn/10}]$$

Where "SPL1," "SPL2," etc. are equal to the sound pressure levels being combined, or in this case, the Project-operational and existing ambient noise levels. The difference between the combined Project and ambient noise levels describe the Project noise level increases to the existing ambient noise environment. As indicated on Table 4.9-11, the Project is not expected to generate a measurable daytime and nighttime operational noise level increase dBA L_{eq} at the nearby receiver locations. Project-related operational noise level increases will satisfy the operational noise level increase significance criteria presented on Table 4.9-5. Therefore, long-term operational impacts associated with on-site noise level increase would be less than significant.

Off-Site Operational Traffic Noise

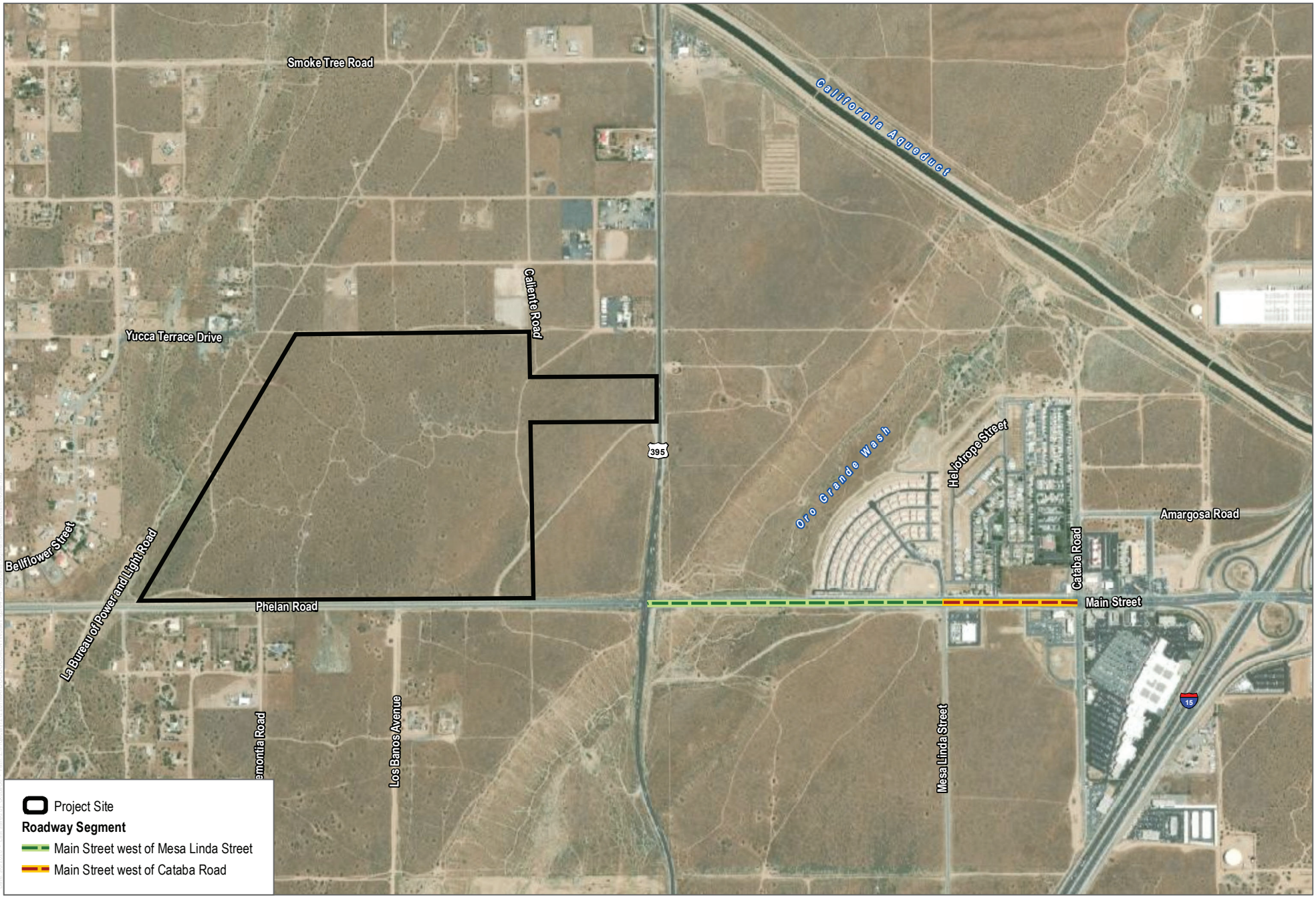
The Project would generate traffic along roadways in the community surrounding the Project site. Many of the roadways evaluated in the Traffic Impact Analysis (Appendix K-1) serve commercial and industrial areas, which are not considered noise-sensitive in relation to noise from roadway traffic. However, a total of 12 roadway segments evaluated in the TIA are aligned along existing noise-sensitive (i.e., residential) areas. Potential noise effects from vehicular traffic were assessed using the Federal Highway Administration's Traffic Noise Model version 2.5 (FHWA 2004). Information used in the model included the site geometry, existing, existing plus Project, future without Project, and future with Project traffic volumes (provided in the Transportation Impact Analysis [Appendix K-1]) and posted traffic speeds. Noise levels were modeled at a uniform distance from the roadway center-line along roadway segments with residences exiting along the right-of-way.

Noise model results are summarized in Table 4.9-12, Off-Site Traffic Noise Modeling Results. Spreadsheets containing the inputs and outputs for the traffic noise modelling are contained in Appendix K-1. The City does not have a specific criterion for evaluating the significance of Project-related increases in off-site traffic noise levels at residences or noise-sensitive areas. For the purposes of this analysis, traffic noise level increases are considered significant if they exceed ambient traffic noise levels by one dB or more, or cause noise levels to exceed the 65 dBA CNEL noise threshold. An increase or decrease in noise level of three dBA is the minimum before any noticeable change in community response would be expected (Caltrans 1998).

Table 4.9-12 shows that the maximum noise level increase would below one (1) dB, and therefore insignificant, at every studied road segment except Main Street. Along Main Street, the Project would result in a maximum increase of 2.3 dB and 2 dB at the Mesa Linda Street and Cataba Road segments, respectively (Figure 4.9-4, Roadway Segments Affected by Off-Site Operational Traffic Noise). While overall exterior noise exposure would remain within the City's maximum exterior limits, the increase in traffic noise would be noticeable to residents along these segments.

To reduce the potentially significant Project traffic noise level increases on the two study area roadway segments for Existing plus Project, Opening Year Cumulative and Horizon Year Project conditions, potential noise mitigation measures were considered in the Noise Impact Analysis (Appendix J). Potential mitigation measures discussed in the report included rubberized asphalt hot mix pavement and off-site noise barriers for the existing non-conforming residential use adjacent to impacted roadway segments. However, while rubberized asphalt would provide some noise reduction, this mitigation is only effective for tire-on-pavement noise at higher speeds and would not reduce truck-related off-site traffic noise levels associated with truck engine and exhaust stacks.

The Noise Impact Analysis found that for off-site noise barriers at receiving noise-sensitive land uses experiencing Project-related traffic noise level increases would need to be high enough and long enough to block the line-of-sight from the noise source (at 11.5 feet high per Caltrans) to the receiver (at 5 feet high per FHWA guidance) in order to provide a 5 dBA reduction per FHWA guidance. Exterior noise mitigation in the form of noise barriers is not anticipated to provide the FHWA attainable reduction of 5 dBA required to reduce the off-site traffic noise level increases and would also require potential openings for driveway access to individual residential lots fronting the road. As such, off-site noise barriers would not be feasible and would not lower the off-site traffic noise levels below a level of significance.



SOURCE: Esri World Imagery 2020

DUDEK

0 625 1,250 Feet

FIGURE 4.9-4

Roadway Segments Affected by Off-Site Operational Traffic Noise

Hesperia Commerce Center II

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Table 4.9-12. Off-Site Traffic Noise Modeling Results

Roadway Segment	Existing Noise Level (dBA CNEL)	Existing with Project Noise Level (dBA CNEL)	Opening Year 2021 without Project Noise Level (dBA CNEL)	Opening Year 2021 with Project Noise Level (dBA CNEL)	Horizon Year 2040 without Project Noise Level (dBA CNEL)	Horizon Year 2040 with Project Noise Level (dBA CNEL)	Maximum Noise Level Increase (dB)	Threshold Exceeded?
U.S. Hwy. 395 n/o Luna Rd.	79.4	79.5	80.1	80.2	83.2	83.2	0.1	No
U.S. Hwy. 395 s/o Luna Rd.	78.7	78.8	79.5	79.7	83.1	83.1	0.2	No
U.S Hwy. 395 s/o Bear Valley Rd.	79.2	79.3	80.0	80.1	83.3	83.4	0.1	No
U.S. Hwy. 395 s/o Eucalyptus St.	79.4	79.5	80.1	80.3	83.3	83.3	0.2	No
Baldy Mesa Rd. n/o Phelan Rd.	74.2	74.2	74.3	74.4	75.7	75.7	0.1	No
Baldy Mesa Rd. s/o Phelan Rd.	70.0	70.1	70.2	70.2	71.5	71.5	0.1	No
Verbena Rd. n/o Phelan Rd.	61.3	61.6	61.4	61.8	62.8	63.0	0.4	No
U.S. Hwy. 395 s/o Yucca Terrace Dr.	81.6	82.3	82.7	83.2	83.4	83.9	0.7	No
U.S. Hwy. 395 s/o Main St.	81.1	81.2	81.8	81.9	85.1	85.1	0.1	No
U.S. Hwy. 395 s/o Poplar St.	81.1	81.2	81.9	82.0	83.0	83.0	0.1	No
U.S. Hwy. 395 s/o Joshua St.	81.4	81.4	82.1	82.1	82.9	82.9	0	No
Escondido Av. n/o Sultana St.	80.4	80.4	81.0	81.0	81.9	81.9	0	No
Escondido Av. s/o Sultana St.	80.4	80.4	81.0	81.0	81.9	81.9	0	No
Topaz Av. n/o Main St.	72.0	72.0	72.2	72.2	73.5	73.5	0	No
Luna Rd. e/o U.S. Hwy. 395	74.9	74.9	75.1	75.1	76.4	76.4	0	No
Bear Valley Rd. e/o U.S. Hwy. 395	76.7	76.7	77.0	77.0	78.6	78.7	0.1	No
Eucalyptus St. w/o U.S. Hwy. 395	60.7	61.0	60.9	61.2	62.2	62.4	0.3	No
Eucalyptus St. e/o U.S. Hwy. 395	68.7	68.8	68.9	69.0	70.2	70.3	0.1	No
Phelan Rd. w/o Baldy Mesa Rd.	78.1	78.1	79.0	79.1	79.6	79.6	0.1	No
Phelan Rd. w/o Verbena Rd.	78.1	78.1	79.0	79.1	79.6	79.6	0.1	No
Phelan Rd. w/o Bellflower St.	78.2	78.3	79.1	79.2	79.7	79.8	0.1	No
Phelan Rd. e/o Driveway 1	78.3	78.5	79.2	79.4	79.8	80.0	0.2	No
Main St. w/o Mesa Linda St.	79.1	81.4	80.4	82.1	80.6	82.3	2.3	**Yes**
Main St. w/o Cataba Rd.	79.6	81.6	80.8	82.4	81.1	82.6	2.0	**Yes**
Main St. e/o Key Point Av.	81.5	82.2	82.4	83.0	83.0	83.5	0.7	No
Main St. e/o Mariposa Rd.	82.2	82.2	82.8	82.8	83.7	83.7	0	No

Table 4.9-12. Off-Site Traffic Noise Modeling Results

Roadway Segment	Existing Noise Level (dBA CNEL)	Existing with Project Noise Level (dBA CNEL)	Opening Year 2021 without Project Noise Level (dBA CNEL)	Opening Year 2021 with Project Noise Level (dBA CNEL)	Horizon Year 2040 without Project Noise Level (dBA CNEL)	Horizon Year 2040 with Project Noise Level (dBA CNEL)	Maximum Noise Level Increase (dB)	Threshold Exceeded?
Main St. w/o Escondido Av.	82.4	82.4	82.9	82.9	83.9	83.9	0	No
Main St. e/o Escondido Av.	81.4	81.5	82.0	82.0	82.9	83.0	0.1	No
Main St. e/o Topaz Av.	82.4	82.4	82.9	82.9	83.9	83.9	0	No
Sultana St. e/o Escondido Av.	73.1	73.1	73.4	73.5	74.6	74.6	0.1	No
Joshua St. e/o U.S. Hwy. 395	75.2	75.3	78.8	78.8	79.2	79.2	0.1	No

Source: Appendix J.

In addition, implementation of both rubberized asphalt hot mix pavement and off-site noise barriers would need to occur within the public right-of-way and private property, respectively. Thus, the ability for the Project applicant to incorporate these measures could not be guaranteed, as there is no assurances that the respective property owners (e.g., the City and private residential property owners) would allow for these improvements on their respective properties. As such, there are no assurances that these measures could be adequately implemented.

Based on the infeasibility of potential mitigation to adequately reduce off-site Project traffic noise levels to less-than-significant levels, off-site Project-related traffic noise level increases at adjacent land uses would remain significant. Therefore, long-term operational impacts associated with Project-related traffic noise increases would be significant and unavoidable.

Threshold B: Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?

Less-than-Significant Impact. The Project would not result in generation of excessive groundborne vibration or groundborne noise levels, as discussed below.

Short-Term Construction Impacts

For construction vibration, this analysis used FTA thresholds for structural damage (vibration-peak-particle velocities greater than 0.2 inches per second) and FTA's threshold for human annoyance within residences (80 vibration velocity level in decibels (VdB) at residences where people normally sleep, for infrequent events).

During demolition, land clearing, and construction activities for the Project groundborne vibration would be produced by heavy-duty construction equipment. The most important equipment relative to generation of vibration, and the vibration levels produced by such equipment, is illustrated in Table 4.9-13.

Table 4.9-13. Vibration Velocities for Typical Construction Equipment

Equipment	PPV at 25 Feet (Inches Per Second)	Approximate Ground Vibration Level 25 feet (VdB)
Large Bulldozer	0.089	87
Loaded Trucks	0.076	86
Drill Rig / Auger	0.089	58
Jackhammer	0.035	87
Small Bulldozer	0.003	79

Source: Appendix J.

As shown in Table 4.9-13, use of heavy equipment (e.g., a large bulldozer) generates vibration levels of 0.089 inches per second PPV at a distance of 25 feet. The nearest residences to the Project site would be approximately 217 feet from ground disturbance from structural foundations, and could experience vibration levels of 0.003 inches per second PPV. Vibration levels at these receptors would remain below the FTA building damage threshold of 0.2 inches per second PPV. In addition, based on the City of Hesperia vibration standards, the unmitigated Project construction vibration levels would remain below the 0.2 PPV (in/sec) threshold at all the nearby noise-sensitive receptor locations. Therefore, short-term construction impacts associated with vibration would be less than significant.

Long-Term Operational Impacts

The operation of the Project site will include heavy trucks moving on site to and from the loading dock areas. Truck vibration levels are dependent on vehicle characteristics, load, speed, and pavement conditions. According to the FTA *Transit Noise and Vibration Impact Assessment Manual,* trucks rarely create vibration that exceeds 70 VdB or 0.004 PPV (in/sec) at 25 feet (unless there are bumps due to frequent potholes in the road). Trucks transiting on site will be travelling at very low speeds so it is expected that delivery truck vibration impacts will satisfy the City of Hesperia 0.2 PPV (in/sec) vibration threshold. Therefore, long-term operational impacts associated with vibration would be less than significant.

Threshold C: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels.

No Impact. The nearest operational public-use airport to the Project site is the Hesperia Airport, which is located approximately 6.2 miles to the south. The airport is located on the Mesa, east of Antelope Valley and south of Ranchero Road. According to the Comprehensive Land Use Plan, the Project site is not located within a runway protection zone or safety zone area, which could have potential safety and noise impacts (San Bernardino County 1991). Therefore, given the considerable distance between the nearest airport and the Project site no impacts would occur.

Threshold D: Would the Project result in cumulatively considerable noise impacts?

Significant and Unavoidable Impact. The cumulative context for traffic noise is the traffic volume increases on roadways within Hesperia as a result of buildout of the City's 2010 General Plan and the anticipated increase in traffic volumes along these roadways. The Project traffic analysis considered the addition of traffic trips from cumulative projects as identified by the City.

Non-transportation noise sources (e.g., Project operation) and construction noise impacts are typically project-specific and highly localized (i.e., these do not generally affect the community noise level at distances beyond several hundred feet). Construction activities associated with proposed or future development within the area would contribute to cumulative noise levels, but in a geographically limited and temporary manner. As other development occurs in the area, noise from different types of uses (e.g., traffic, aircraft, and fixed noise sources) would continue to combine, albeit on a localized basis, to cause increases in overall background noise conditions within the area. As a result, such sources do not significantly contribute to cumulative noise impacts at distant locations and are not evaluated on a cumulative level.

The analysis of off-site Project-related traffic noise levels included an evaluation of traffic volumes and resulting roadway traffic noise levels from cumulative projects. Table 4.9-12 shows that the maximum noise level increase for the cumulative versus cumulative plus Project scenario would be less than 1 dB at every studied road segment except Main Street. Along Main Street, the Project would result in a maximum increase of 2.3 dB and 2 dB at the Mesa Linda Street and Cataba Road segments, respectively. While overall exterior noise exposure would remain within the City's maximum exterior limits, the increase in traffic noise would be clearly noticeable to residents along these two segments.

To reduce the potentially significant Project traffic noise level increases on the two study area roadway segments for Existing plus Project, Opening Year Cumulative and Horizon Year Project conditions, potential noise mitigation measures were considered in the Noise Impact Analysis (Appendix J). Potential mitigation measures discussed in

the report included rubberized asphalt hot mix pavement and off-site noise barriers for the existing non-conforming residential use adjacent to impacted roadway segments. However, as further discussed in the Noise Impact Analysis, while rubberized asphalt would provide some noise reduction, this mitigation is only effective for tire-on-pavement noise at higher speeds and would not reduce truck-related off-site traffic noise levels associated with truck engine and exhaust stacks.

The Noise Impact Analysis found that for off-site noise barriers at receiving noise-sensitive land uses experiencing Project-related traffic noise level increases would need to be high enough and long enough to block the line-of-sight from the noise source (at 11.5 feet high per Caltrans) to the receiver (at 5 feet high per FHWA guidance) in order to provide a 5 dBA reduction per FHWA guidance. Exterior noise mitigation in the form of noise barriers is not anticipated to provide the FHWA attainable reduction of 5 dBA required to reduce the off-site traffic noise level increases and would also require potential openings for driveway access to individual residential lots fronting the road. As such, off-site noise barriers would not be feasible and would not lower the off-site traffic noise levels below a level of significance.

In addition, implementation of the both rubberized asphalt hot mix pavement and off-site noise barriers would need to occur within the public right-of-way and private property, respectively. Thus, the ability for the Project applicant to incorporate these measures could not be guaranteed, as there is no assurances that the respective property owners (e.g., the City and private residential property owners) would allow for these improvements on their respective properties. As such, there are no assurances that these measures could be adequately implemented.

Based on the infeasibility of potential mitigation to adequately reduce off-site Project traffic noise levels to less-than-significant levels, off-site Project-related traffic noise level increases at adjacent land uses would remain significant. Therefore, long-term operational impacts associated with Project-related traffic noise increases would be significant and unavoidable, and the Project would have cumulatively considerable impact related to noise.

4.9.5 Mitigation Measures and Level of Significance After Mitigation

Threshold A: Would the Project result in 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?

Short-Term Construction Impacts

The Project would result in **less-than-significant impacts** with regard to short-term construction noise. No mitigation is required.

Long-Term Operational Impacts

The Project would result in less-than-significant on-site operational impacts; however, the Project would result in potentially significant off-site operational traffic noise impacts along Main Street between U.S. Highway 395 and Cataba Road. Based on the infeasibility of potential mitigation to adequately reduce off-site Project traffic noise levels to less-than-significant levels, and because there are no assurances that noise-reducing measures could be adequately implemented, no reasonably feasible and implementable mitigation measures have been identified. As such, off-site operational traffic noise impacts would remain **significant and unavoidable**.

Threshold B: Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?

The Project would result in **less-than-significant impacts** with regard to groundborne vibration and groundborne noise levels. No mitigation is required.

Threshold C: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels.

The Project would result in **no impact** with regard to excessive airport noise levels. No mitigation is required.

Threshold D: Would the Project result in cumulatively considerable noise impacts?

The Project would result in potentially significant cumulative traffic noise impacts along Main Street between U.S. Highway 395 and Cataba Road. Based on the infeasibility of potential mitigation to adequately reduce cumulative traffic noise levels to less-than-significant levels, and because there are no assurances that noise-reducing measures could be adequately implemented, no reasonably feasible and implementable mitigation measures have been identified. As such, cumulative traffic noise impacts would remain **significant and unavoidable**.

4.9.6 References Cited

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4.10 Transportation

This section describes the existing transportation conditions of the Hesperia Commerce Center II Project (Project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the Project.

In addition to the documents incorporated by reference (see Section 2.7 of Chapter 2, Introduction, of this Environmental Impact Report [EIR]), the following analysis is based, in part, on the following sources, which are found in Appendix K of this Draft EIR:

- *Traffic Impact Analysis* (TIA) prepared by Urban Crossroads in June 2020 (Appendix K-1)
- *Vehicle Miles Traveled (VMT) Analysis* prepared by Urban Crossroads in July 2020 (Appendix K-2)

4.10.1 Existing Conditions

This section provides a summary of the existing circulation network, the City of Hesperia General Plan Circulation Network, bicycle and pedestrian facilities, transit service, and truck routes.

Existing Circulation Network

The study area includes 25 existing and future intersections, as shown in Figure 4.10-1, Project Site Location and Traffic Study Area.

Regional access to the Project site is available from the Interstate (I) 15/Main Street interchange. The Project site is located north of Phelan Road and west of U.S. Highway 395 in the City of Hesperia. Vehicular and truck traffic access will be provided via four driveways (#4, #5, #6, and #7) shown in Figure 4.10-1, Project Site Location and Traffic Study Area.

Figure 4.10-2 illustrates the City of Hesperia General Plan Circulation Element, Figure 4.10-3 illustrates the County of San Bernardino General Plan Circulation Element, and Figure 4.10-4 illustrates City of Victorville General Plan Circulation Element.

Main Street, west of I-15 and Phelan Road are Major Arterials within the study area. Escondido Avenue, north of Main Street is a Major Arterial with bike lanes. Mesa Linda Street and Escondido Avenue, south of Main Street are Arterials. Poplar Street, west of Lassen Road and Joshua Street are Secondary Arterials. Main Street Corridor "A" is the segment of Main Street from the I-15 to Ninth Avenue. This segment of Main Street can accommodate six travel lanes and includes a landscape median. This segment does not include bike lanes.

Bicycle and Pedestrian Facilities

The City of Hesperia (City) bike plan is shown in Figure 4.10-5. Within the study area, there are existing Class II bike paths along Escondido Avenue. Within the study area, there are proposed Class I bike paths along Main Street, east of I-15, proposed Class II bike facilities along Topaz Avenue and Mariposa Avenue, and a proposed Class III bike facility along Joshua Street.

Field observations conducted in October 2019 indicates nominal pedestrian and bicycle activity within the study area. Figure 4.10-6 illustrates the existing pedestrian facilities, including sidewalks and crosswalks. As shown in

Figure 4.10-6, Existing Pedestrian Facilities, there are existing sidewalks along portions of Luna Road, Main Street, and Escondido Avenue within the study area.

Transit Service

The study area is currently served by the Victor Valley Transit Authority (VVTA), a public transit agency serving the Victor Valley area within San Bernardino County, with bus service along Mariposa Road, Main Street, Phelan Road, Bear Valley Road, and Escondido Avenue. Existing bus routes (21W, 25, 64, and 68) provided within the area by VVTA are shown in Figure 4.10-7, Existing Transit Routes.

Truck Routes

The City of Hesperia's General Plan does not provide designated truck routes. The City of Victorville truck routes are shown in Figure 4.10-8, City of Victorville State Rail and Truck Routes. Truck routes for the Project have been determined based on discussions with City staff. These truck routes serve both the Project and future cumulative development projects throughout the study area.

4.10.2 Relevant Plans, Policies, and Ordinances

The following section describes regulations, plans, policies, and ordinances relevant to the study area. These include policies or regulations regarding minimum level of service (LOS) standards as wells as the newly implemented Vehicle Miles Traveled metric for determination of significant impacts. State, regional, and local regulations are described. There are no traffic-specific federal regulations applicable to the Project. A summary of minimum LOS standards for informational purposes is included in Section 4.10.3, Thresholds of Significance.

State

Senate Bill 743

On September 27, 2013, Governor Brown signed Senate Bill (SB) 743, which became effective on January 1, 2014. The purpose of SB 743 is to streamline the review under the California Environmental Quality Act (CEQA) process for several categories of development projects including the development of infill projects in transit priority areas and to balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions. SB 743 adds Chapter 2.7: Modernization of Transportation Analysis for Transit Oriented Infill Projects to the CEQA Statute (Public Resources Code Section 21099). Section 21099(d)(1) provides that aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment. In addition, SB 743 mandates that alternative metric(s) for determining impacts relative to transportation shall be developed to replace the use of LOS in CEQA documents.

In the past, environmental review of transportation impacts focused on the delay that vehicles experience at intersections and on roadway segments, which is often measured using LOS. Mitigation for impacts on vehicular delay often involves increasing capacity such as widening a roadway or the size of an intersection, which in turn encourages more vehicular travel and greater pollutant emissions. Additionally, improvements to increase vehicular capacity can often discourage alternative forms of transportation such as biking and walking. SB 743 directed the Office of Planning and Research (OPR) to develop an alternative metric(s) for analyzing transportation impacts in CEQA documents. The alternative shall promote the state's goals of reducing greenhouse gas emissions and traffic-

related air pollution by promoting the development of multimodal transportation system and providing clean, efficient access to destinations. Under SB 743, it was anticipated that the focus of transportation analysis will shift from vehicle delay to vehicle miles traveled (VMT) within transit-priority areas (i.e., areas well served by transit).

Pursuant to SB 743, OPR released the draft revised CEQA Guidelines in November 2017, recommending the use of VMT for analyzing transportation impacts. Additionally, OPR released Updates to Technical Advisory on Evaluating Transportation Impacts in CEQA, to provide guidance on VMT analysis. In this Technical Advisory, OPR provides its recommendations to assist lead agencies in screening out projects from VMT analysis and selecting a significance threshold that may be appropriate for their particular jurisdictions. While OPR's Technical Advisory is not binding on public agencies, CEQA allows lead agencies to "consider thresholds of significance … recommended by other public agencies, provided the decision to adopt those thresholds is supported by substantial evidence" (CEQA Guidelines Section 15064.7[c]).

In December 2018, the CEQA Guidelines were updated to add Section 15064.3, Determining the Significance of Transportation Impacts, that describes specific considerations for evaluating a project's transportation impacts using the VMT methodology. This new methodology is required to be used for projects beginning on July 1, 2020.

CEQA Guidelines Section 15064.3(b) is divided into four subdivisions as follows:

(1) Land Use Projects. Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.

(2) Transportation Projects. Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.

(3) Qualitative Analysis. If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.

(4) Methodology. A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled, and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project.

Since the Project is a land use development, the CEQA Guidelines Section 15064.3(b)(1) applies to the Project.

Sustainable Communities Strategies: Senate Bill 375

The Sustainable Communities and Climate Protection Act of 2008 (Sustainable Communities Act, SB 375, Chapter 728, Statutes of 2008) supports the state's climate action goals to reduce greenhouse gas emissions through coordinated transportation and land use planning with the goal of more sustainable communities. Under the Sustainable Communities Act, the California Air Resources Board sets regional targets for greenhouse gas emissions reductions from passenger vehicle use. In 2010, the California Air Resources Board established these targets for 2020 and 2035 for each region covered by one of the state's Metropolitan Planning Organizations (MPOs). The California Air Resources Board will periodically review and update the targets, as needed.

Each of California's MPOs must prepare a Sustainable Communities Strategy (SCS) as an integral part of its Regional Transportation Plan (RTP). The SCS contains land use, housing, and transportation strategies that, if implemented, would allow the region to meet its greenhouse gas emission reduction targets. Once adopted by the MPO, the RTP/SCS guides the transportation policies and investments for the region. California Air Resources Board must review the adopted SCS to confirm and accept the MPO's determination that the SCS, if implemented, would meet the regional greenhouse gas targets. If the combination of measures in the SCS would not meet the regional targets, the MPO must prepare a separate alternative planning strategy to meet the targets. The alternative planning strategy is not a part of the RTP.

The Sustainable Communities Act also establishes incentives to encourage local governments and developers to implement the SCS or the alternative planning strategy. Developers can get relief from certain CEQA requirements if their new residential and mixed-use projects are consistent with a region's SCS (or alternative planning strategy) that meets the targets (see California Public Resources Code Sections 21155, 21155.1, 21155.2, 21159.28).

Caltrans

The California Department of Transportation (Caltrans) Draft Transportation Impact Study Guide, February 2020, will replace the Guide for the Preparation of Traffic Impact Studies (Caltrans 2002, 2020). Per the 2020 Transportation Impact Study Guide, Caltrans' primary review focus is VMT, replacing LOS as the metric used in CEQA transportation analyses (Caltrans 2020). Caltrans recommends use of OPR's recommended thresholds and guidance on methods of VMT assessment found in OPR's Technical Advisory (OPR 2018) for land use projects. In addition to VMT, the 2020 Transportation Impact Study Guide states that it may request a targeted operational and safety analysis to address a specific geometric or operational issue related to the State Highway System and connections with the State Highway System. The mainline and ramp junctions analysis provided in the Project's TIA (Appendix K-1) is consistent with this requirement and is based on the Caltrans 2002 Guide.

Regional

Southern California Association of Governments

The Southern California Association of Governments (SCAG) develops the RTP, which presents the transportation vision for Los Angeles, Orange, San Bernardino, Imperial, Riverside, and Ventura Counties. SB 375 was enacted to reduce greenhouse gas emissions from automobiles and light trucks through integrated transportation, land use, housing, and environmental planning. Under the law, SCAG is tasked with developing an SCS, an element of the RTP that provides a plan for meeting emissions reduction targets set forth by the California Air Resources Board.

The 2020–2045 RTP/SCS also known as Connect SoCal Plan is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility

options and achieve a more sustainable growth pattern. It charts a path toward a more mobile, sustainable and prosperous region by making connections between transportation networks, between planning strategies and between the people whose collaboration can improve the quality of life for Southern Californians (SCAG 2020). The Connect SoCal Plan was adopted on September 3, 2020 by SCAG's Regional Council.

San Bernardino County Congestion Management Program

The passage of Proposition 111 in June 1990 established a process for each metropolitan county in California that has an urbanized area with a population over 50,000 (which would include the County of San Bernardino) to prepare a Congestion Management Program (CMP). In 1990 the San Bernardino Associated Governments (SANBAG) was designated the Congestion Management Agency (CMA) for San Bernardino County. In January 2017, SANBAG split into the San Bernardino County Transportation Authority (SBCTA) and San Bernardino Council of Governments (SBCOG).

Although implementation of the CMP was made voluntary by the passage of Assembly Bill 2419, the CMP requirement has been retained in all five urbanized counties within the SCAG region. In addition to their value as a transportation management tool, CMPs have been retained in these counties because of the federal Congestion Management System requirement that applies to all large, urban areas that are not in attainment of federal air quality standards. These counties recognize that the CMP provides a mechanism through which locally implemented programs can fulfill most aspects of a regional requirement that would otherwise have to be addressed by the regional agency (for the County of San Bernardino, SCAG). The most recent CMP that was prepared by the San Bernardino Associated Governments in June 2016.

The LOS at each CMP location is monitored by local jurisdictions in order to implement the statutory requirements of the CMP. If LOS standards deteriorate, then local jurisdictions must prepare a deficiency plan to meet conformance standards outlined by the countywide plan. The local CMP requires that a TIA report be prepared when a project's trip generation exceeds 250 two-way peak hour trips. For the CMP roadway system, the LOS standard shall be E for all segments and intersections except those designated LOS F, as listed in Table 2-1 of the CMP (SANBAG 2016). However, per SB 743, LOS is no longer considered an environmental impact under CEQA. As the County of San Bernardino has not adopted significance thresholds regarding a VMT impact, the significance thresholds provided in the OPR's Technical Advisory, as described above, have been used for this Project.

Regional Funding Mechanisms – Measure "I" Funds

In 2004, the voters of San Bernardino County approved the 30-year extension of Measure "I," a one-half of one percent sales tax on retail transactions, through the year 2040, for transportation projects including, but not limited to, infrastructure improvements, commuter rail, public transit, and other identified improvements. The Measure "I" extension requires that a regional traffic impact fee be created to ensure development is paying its fair share. A regional Nexus study was prepared by SBCTA and concluded that each jurisdiction should include a regional fee component in their local programs to meet the Measure "I" requirement. The regional component assigns specific facilities and cost sharing formulas to each jurisdiction and was most recently updated in September 2017. Revenues collected through these programs are used in tandem with Measure "I" funds to deliver projects identified in the Nexus Study.

While Measure "I" is a self-executing sales tax administered by SBCTA, as the funds raised through Measure "I" have funded in the past, and will continue to fund, new transportation facilities in San Bernardino County, including within the City of Hesperia.

Local

City of Hesperia General Plan

The General Plan Circulation Element outlines the City's goals and implementation policies to provide a safe and efficient transportation system strategy (City of Hesperia 2010). It also designates the Specific Plan to cover all freeway frontages within the City as well as the commercial and industrial areas parallel to the freeway corridor. The goals, policies, and development standards applicable to the Project are also found in the Main Street and Freeway Corridor Specific Plan.

Circulation Element

Goal CI-2 Develop and implement a City-wide Congestion Management Plan

Policy CI-2.1 Strive to achieve and maintain a LOS D or better on all roadways and intersections: LOS E during peak hours shall be considered acceptable through freeway interchanges and major corridors (Bear Valley Road, Main Street/Phelan Road, U.S. Highway 395).

Policy CI-2.2 Work with regional agencies which have authority over roadways within the City to ensure a minimum Level of Service D for roadways and a minimum Level of Service E for intersections.

Policy CI-2.3 Develop policies and regulations to ensure that future development does not reduce the Level of Service of roadways and intersections below the minimum Levels of Service goals.

Main Street and Freeway Corridor Specific Plan

The Specific Plan establishes a framework for the Main Street and freeway corridors and is intended to facilitate and support development and improvements along these corridors. The regulations of the specific plan replace those set forth in the planning and zoning provisions of the City's Development Code, and any other applicable ordinances. The Project site is zoned and designated by the Specific Plan as Commercial/Industrial Business Park (CIBP) (City of Hesperia 2020). The Project site would be developed in accordance with the provisions set forth in this land use designation. The CIBP zone falls within three land use districts, Main Street/I-15 District, Highway 395/I-15 District, and Industrial District. The Main Street/I-15 and Highway 395/I-15 Districts provide enhanced vehicular, truck, and rail accessibility by taking advantage of their location along the I -5 corridor with its connection to U.S. Highway 395, and its linkage to the Southern California Logistics Airport. The Project site falls within the Main Street/I-15 District. The Main Street/I-15 District takes advantage of regional freeway accessibility and visibility through high-quality development and streetscape enhancements and has following goals related to circulation (City of Hesperia 2020):

Goal C-1: Increase freeway access to Interstate-15, for purposes of conveying regional traffic into and out of the community.

Goal C-2*:* Explore and provide the highest level of access for all modes of transportation and maintains efficient circulation in the Specific Plan area throughout the day.

Policy C-2.1: Preserve the traffic-carrying capacity of arterial streets by implementing policies that include the promotion of shared access locations among multiple properties or establishments, reciprocal access agreements, shared parking, and the use of side streets to provide access to parcels, if possible.

Policy C-2.2: Increase trip reduction efforts.

Policy C-2.3: Provide truck route designations for specific facilities in the City.

Policy C-2.4: Reduce the number of median openings to only those intersections that are signalized.

Policy C-2.6: Encourage present and future public transit use.

Policy C-2.7: Identify activity centers that would benefit from increased transit access and work with Victor Valley Transit Authority (VVTA) to enhance service to these centers.

Policy C-2.8: Facilitate bicycle use and circulation within the Specific Plan area.

Policy C-2.9: Promote a safe and attractive pedestrian environment to encourage pedestrian traffic within and across the districts, especially in the City Center District, where wider sidewalks for pedestrians are desirable.

Local Funding Mechanisms

City of Hesperia Development Impact Fee Program

The City of Hesperia has created its own local Development Impact Fee (DIF) program to impose and collect fees from new residential, commercial, and industrial development for the purpose of funding roadways and intersections necessary to accommodate City growth as identified in the City's General Plan Circulation Element. The City's DIF includes a Regional Circulation System Fee to comply with Measure "I" and a Local Circulation System Fee to address transportation improvements which are locally noteworthy. The City of Hesperia DIF facilities list has been provided by City staff.

The Project applicant will be subject to the City's DIF fee program and will pay the requisite City DIF fees at the rates then in effect. The Project applicant's payment of the requisite DIF fees at the rates then in effect pursuant to the DIF Program will reduce its deficiencies to DIF-funded facilities. After the City's DIF fees are collected, they are placed in a separate interest-bearing account pursuant to the requirements of Government Code § 66000 *et seq*. The timing to use the DIF fees is established through periodic capital improvement programs which are overseen by the City's Public Works Department.

Fair Share Contribution

Project improvements may include a combination of fee payments to established programs (e.g., DIF), construction of specific improvements, payment of a fair share contribution toward future improvements or a combination of these approaches. Improvements constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate (to be determined at the City of Hesperia's discretion).

When off-site improvements are identified with a minor share of responsibility assigned to proposed development, the approving jurisdiction may elect to collect a fair share contribution or require the development to construct improvements. Improvements included in a defined program and constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate.

4.10.3 Thresholds of Significance

The significance criteria used to evaluate the Project's impacts to transportation are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to transportation would occur if the project would:

A. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
B. 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.
E. Result in cumulatively considerable transportation impacts.

VMT Impact Thresholds

The updated CEQA Guidelines themselves do not establish a significance threshold and the OPR's Technical Advisory recommends a threshold of significance for residential, office and other land uses. Although the recommended threshold for per capita or per employee for residential or office projects, respectively, is 15% below that of existing development, lead agencies can use more location-specific information to develop their own specific threshold for other project/land use types. The City of Hesperia has yet to adopt its own VMT analysis guidelines and thresholds. Therefore, per City staff recommendation, the VMT threshold of better than existing regional VMT has been used in the Project's analysis until the City of Hesperia adopts its own guidelines and thresholds.

Project Trip Generation

Trip generation represents the amount of traffic that is attracted and produced by a development, and is based upon the specific land uses planned for a given project. To develop the traffic characteristics of a proposed project, the trip generation rates used for this analysis are based on information collected by the Institute of Transportation Engineers as provided in their Trip Generation Manual and the High-Cube Warehouse Trip Generation Study (ITE 2017, 2019). The trip generation summary illustrating daily, and peak hour trip generation estimates for the Project in actual vehicles and passenger car equivalent (PCE) vehicles are shown in Table 4.10-1, Project Trip Generation.

As shown in Table 4.10-1, the Project is anticipated to generate a total of 11,898 actual vehicle trip-ends per day, with 1,258 AM peak hour trips and 1,261 PM peak hour trips. Consistent with the City's traffic study guidelines, the peak hour operations analysis has been conducted using PCE volumes. The Project is anticipated to generate a total of 15,152 PCE trip-ends per day, 1,587 PCE AM peak hour trips and 1,570 PCE PM peak hour trips.

Table 4.10-1. Project Trip Generation

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	*Out*	*Total*	*In*	*Out*	*Total*	
Project Trip Generation Summary (Actual)									
High-Cube Fulfillment Center Warehouse (65% of Bldg. 1, 2)	2,361.648	TSF							
Passenger Cars:			187	56	243	95	245	340	4,134
Truck Trips									
2–4 axle:			15	4	19	7	19	26	384
5+-axle:			20	6	26	7	17	24	512
Net Truck Trips			*35*	*10*	*45*	*14*	*36*	*50*	*896*
Fulfillment Center Total Net Trips (Actual Vehicles)[2]			*222*	*66*	*288*	*109*	*281*	*390*	*5,030*
General Light Industrial (35% of Bldg. 1, 2)	1,271.656	TSF							
Passenger Cars:			616	84	700	82	548	630	4,958
Truck Trips									
2-axle:			63	9	72	8	56	64	506
3-axle:			31	4	35	4	27	31	246
4+-axle:			74	10	84	10	66	76	600
Net Truck Trips			*168*	*23*	*191*	*22*	*149*	*171*	*1,352*
General Light Industrial Total Net Trips (Actual Vehicles)[2]			*784*	*107*	*891*	*104*	*697*	*801*	*6,310*
General Light Industrial (Bldg. 3)	112.125	TSF							
Passenger Cars:			54	7	61	7	48	55	438
Truck Trips									
2-axle:			6	1	7	1	5	6	44
3-axle:			3	0	3	0	2	2	22
4+-axle:			7	1	8	1	6	7	54
Net Truck Trips			*16*	*2*	*18*	*2*	*13*	*15*	*120*
General Light Industrial Total Net Trips (Actual Vehicles)[2]			*70*	*9*	*79*	*9*	*61*	*70*	*558*
Passenger Car Total			**857**	**147**	**1,004**	**184**	**841**	**1,025**	**9,530**
Truck Total (Actual Vehicles)			**219**	**35**	**254**	**38**	**198**	**236**	**2,368**
Total Project (Actual Vehicles)			**1,076**	**182**	**1,258**	**222**	**1,039**	**1,261**	**11,898**
Project Trip Generation Summary (PCE)									
High-Cube Fulfillment Center Warehouse (65% of Bldg. 1, 2)	2,361.648	TSF							
Passenger Cars:			187	56	243	95	245	340	4,134

Table 4.10-1. Project Trip Generation

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	*Out*	*Total*	*In*	*Out*	*Total*	
Truck Trips									
2–4 axle:			29	9	38	15	37	52	766
5+-axle:			60	18	78	20	51	71	1,538
Net Truck Trips			*89*	*27*	*116*	*35*	*88*	*123*	*2,304*
Fulfillment Center Total Net Trips (PCE)[2]			*276*	*83*	*359*	*130*	*333*	*463*	*6,438*
General Light Industrial (35% of Bldg. 1, 2)	1,271.656	TSF							
Passenger Cars:			616	84	700	82	548	630	4,958
Truck Trips									
2-axle:			94	13	107	12	84	96	758
3-axle:			61	8	69	8	54	62	492
4+-axle:			223	30	253	30	199	229	1,798
Net Truck Trips			*378*	*51*	*429*	*50*	*337*	*387*	*3,048*
General Light Industrial Total Net Trips (PCE)[2]			*994*	*135*	*1,129*	*132*	*885*	*1,017*	*8,006*
General Light Industrial (Bldg. 3)	112.125	TSF							
Passenger Cars:			54	7	61	7	48	55	438
Truck Trips									
2-axle:			8	1	9	1	7	8	68
3-axle:			5	1	6	1	5	6	44
4+-axle:			20	3	23	3	18	21	158
Net Truck Trips			*33*	*5*	*38*	*5*	*30*	*35*	*270*
General Light Industrial Total Net Trips (PCE)[2]			*87*	*12*	*99*	*12*	*78*	*90*	*708*
Passenger Car Total			***857***	***147***	***1,004***	***184***	***841***	***1,025***	***9,530***
Truck Total (PCE)			***500***	***83***	***583***	***90***	***455***	***545***	***5,622***
Total Project (PCE)			**1,357**	**230**	**1,587**	**274**	**1,296**	**1,570**	**15,152**

Source: Appendix K-1

[1] TSF = thousand square feet

[2] Total Net Trips = Passenger Cars + Net Truck Trips.

Project Trip Distribution

Trip distribution is the process of identifying the probable destinations, directions, or traffic routes that will be used by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered to identify the route where the Project traffic would distribute. The Project trip distribution was developed based on anticipated travel patterns to and from the Project site for both passenger cars and truck traffic. The Project trip distribution patterns have been developed based on the anticipated travel patterns for the warehousing trucks. For both passenger cars and trucks, the Project trip distribution was developed based on an understanding of existing travel patterns in the area, the geographical location of the site, and the site's proximity

to the regional arterial and state highway system. The distribution patterns were reviewed by the ity of Hesperia as part of the traffic study scoping process.

The Project truck trip distribution pattern is illustrated in Figure 4.10-9. The Project passenger car trip distribution pattern is illustrated in Figure 4.10-10.

Modal Split

The traffic reducing potential of public transit, walking, or bicycling have not been considered in the Project's traffic analysis. Essentially, the traffic projections are conservative in that these alternative travel modes might be able to reduce the forecasted traffic volumes (employee trips only).

Project Trip Assignment

The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, Project ADT and peak hour intersection turning movement volumes in PCE are shown in Figure 4.10-11, Project-Only Average Daily Traffic (in PCE), and Figure 4.10-12, Project-Only Traffic Volumes (in PCE).

Methodology

This section describes the methodology used to analyze the potential impacts of the Project.

Vehicle Miles Traveled Analysis Methodology

As described in Section 4.10.2, Relevant Plans, Policies, and Ordinances, OPR has approved the addition of new Section 15064.3, "Determining the Significance of Transportation Impacts" to the State's CEQA Guidelines, compliance with which is required beginning July 1, 2020. The Updated CEQA Guidelines state that "generally, vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts" and define VMT as "the amount and distance of automobile travel attributable to a project." It should be noted that "automobile" refers to on-road passenger vehicles, specifically cars and light trucks. Heavy-duty truck VMT could be included for modeling convenience and ease of calculation (for example, where models or data provide combined auto and heavy truck VMT). Other relevant considerations may include the effects of a project on transit and non-motorized traveled.

The San Bernardino County Transportation Authority (SBCTA) is currently conducting a multi-jurisdictional study to develop a set of procedures and provide local jurisdictions with sufficient information to adopt VMT baselines and thresholds of significance. The San Bernardino County Transportation Authority released its Recommended Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment (SBCTA Guidelines) that address both traditional automobile delay-based level LOS and new VMT analysis requirements (SBCTA 2019). However, the City of Hesperia has yet to adopt its own VMT analysis guidelines and thresholds. Therefore, per City staff recommendation, the VMT threshold of better than existing regional VMT has been used in the Project's analysis until the City of Hesperia adopts its own guidelines and thresholds.

Screening for Land Use Projects

The SBCTA Guidelines provides details on appropriate "screening thresholds" that can be used to identify when a proposed land use project is anticipated to result in a less-than-significant impact without conducting a more detailed analysis. A land use project need only to meet one of the above screening thresholds to result in a less-than- significant impact (SBCTA 2019).

- **Project-Type Screening:** The SBCTA Guidelines identifies projects that are consistent with the current Sustainable Communities Strategy (SCS) or general plan, and that generate fewer than 110 daily vehicle trips be presumed to have a less-than-significant impact on VMT. As shown in Table 4.10.1, the Project would generate more than 110 daily vehicle trips and would not be eligible to screen out based on project type screening.
- **Low VMT Area Screening:** As noted in the Technical Advisory and SBCTA Guidelines, residential and office projects that locate in areas with low VMT and that incorporate similar features (density, mix of uses, and transit accessibility) will tend to exhibit similarly low VMT. The Screening Tool uses the sub-regional San Bernardino Transportation Analysis Model (SBTAM) to measure VMT performance within individual traffic analysis zones (TAZs) within the region. The Project's physical location based on parcel number was input into the Screening Tool to determine the TAZ's VMT as compared to the County average. A parcel within the Project site was selected and the Screening Tool was run for VMT per service population (i.e., population and employment) measure of VMT. Based on the Screening Tool results (see Appendix K-2), the Project is partially located within what appears to be a low VMT generating TAZ. However, further review of the TAZ (53908102) indicates that the socio-economic data within the zone contains no employment or population and review of adjacent TAZ's that contain small amounts of employment and population generate VMT levels that exceed the County's current average. SBCTA Guidelines note that to qualify the project land use must be consistent with the existing land use in the low VMT generating TAZ. As the existing TAZ contains no employment use, the Project would not qualify as residing in a low VMT area.
- **TPA Screening:** Consistent with guidance identified in the Technical Advisory and SBCTA Guidelines, projects located within a Transit Priority Area (TPA) (i.e., within ½ mile of an existing "major transit stop" or an existing stop along a "high-quality transit corridor") may be presumed to have a less than significant impact absent substantial evidence to the contrary. However, the presumption may not be appropriate if a project:
    - Has a Floor Area Ratio (FAR) of less than 0.75;
    - Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking);
    - Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization); or
    - Replaces affordable residential units with a smaller number of moderate- or high-income residential units.

Based on the Screening Tool results presented in Appendix K-2, the Project site is not located within ½ mile of an existing major transit stop, or along a high-quality transit corridor.

As outlined above, the Project does not meet the screening criteria identified in the SBCTA guidelines. Therefore, an assessment of the Project's VMT impact under base year conditions has been provided using available significance thresholds and guidance from OPR and Technical Advisory.

Project VMT Estimation Methodology

The San Bernardino Transportation Analysis Model (SBTAM) is a useful tool to estimate VMT as it considers interaction between different land uses based on socio-economic data such as population, households, and employment. The SBCTA Guidelines identifies SBTAM as the appropriate tool for conducting VMT analysis for land use projects in San Bernardino County. The SBTAM is a trip-based model that has been developed using SCAG's Sub-Regional Model Development Tool.

For land use projects such as the Project, model-based approach (tour- or trip- based travel demand models) offer the best methods for assessing VMT and for comparing those assessments to VMT thresholds. Per OPR's Technical Advisory, when a trip-based model is used to analyze an office project, the focus can be on home-based work trips. Since the Project would

primarily be a warehouse use, the metric chosen for VMT estimation is per employee. Therefore, the analysis for the Project is based on home-based VMT for employees. It should be noted even though OPR does not require that VMT of heavy trucks be included in a project's VMT estimation, the SBTAM model includes a truck component. Therefore, Project truck trips and truck-related VMT are included in the Project's per-employee VMT, and the Project's VMT is a conservative estimate.

4.10.4 Impacts Analysis

Threshold A: Would the Project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Less-than-Significant Impact. The Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, as discussed below.

Regional Transportation Plan/Sustainable Communities Strategy

The 2020–2045 RTP/SCS was adopted on September 3, 2020, and presents the land use and transportation vision for the region through the year 2045, providing a long-term investment framework for addressing the region's challenges. The RTP/SCS establishes goals for the region and identifies transportation investments that address the region's growing population, as well as strategies to reduce traffic congestion and GHG emissions. In addition, the RTP/SCS is supported by a combination of transportation and land use strategies that help the region achieve state GHG emission reduction goals and federal Clean Air Act requirements, preserve open space areas, improve public health and roadway safety, support the region's vital goods movement industry, and utilize resources more efficiently (SCAG 2020).

Consistency with the 2020–2045 RTP/SCS goals, below, demonstrates that the Project would not conflict with the applicable goals in the RTP/SCS adopted for the purpose of avoiding or mitigating an environmental effect. Table 4.10-2, Consistency with 2020–2045 RTP/SCS Goals, shows how the Project promotes consistency with the guiding principles and policies of the RTP/SCS.

Table 4.10-2. Consistency with 2020–2045 RTP/SCS Goals

RTP/SCS Goal	Project Applicable Component(s)	Consistency
Goal 1 Encourage regional economic prosperity and global competitiveness.	The Project would involve construction of three industrial warehouse buildings. Thus, the Project would generate jobs and tax revenue for the City and its residents. Once operational, the Project would add to the City's business tax base and would employ approximately 3,134 workers, helping the City better meet its jobs/housing balance, while also providing commercial/industrial business park use that will help the City offer a more balanced array of land uses throughout the broader Project area.	**Consistent**
Goal 2 Improve mobility, accessibility, reliability, and travel safety for people and goods.	The Project would include construction and operation of three industrial warehouse buildings that would be easily and efficiently accessible to U.S. Highway 395 and I-15, which would help to facilitate regional goods movement throughout Southern California.	**Consistent**
Goal 3	A traffic impact analysis (Appendix K-1) has been prepared to determine the Project's potential effect on the regional and local circulation system. Improvements to adjacent roadway facilities	**Consistent**

Table 4.10-2. Consistency with 2020–2045 RTP/SCS Goals

RTP/SCS Goal	Project Applicable Component(s)	Consistency
Enhance the preservation, security, and resilience of the regional transportation system.	would be implemented as part of the Project, as to accommodate for street capacity and effectiveness of the regional circulation system during operation of the Project. Further, the City has created its own local Development Impact Fee (DIF) program to impose and collect fees from new residential, commercial and industrial development for the purpose of funding roadways and intersections necessary to accommodate City growth as identified in the City's General Plan Circulation Element. The City's DIF includes a Regional Circulation System Fee to comply with Measure "I" and a Local Circulation System Fee to address transportation improvements which are locally noteworthy. As such, the Project applicant will be subject to the City's DIF fee program and will pay the requisite City DIF fees at the rates then in effect.	
Goal 4 Increase person and goods movement and travel choices within the transportation system.	The Project would include construction and operation of three industrial warehouse buildings, which would be easily and efficiently accessible to U.S. Highway 395 and I-15, which would help to facilitate regional goods movement throughout Southern California.	**Consistent**
Goal 5 Reduce greenhouse gas emissions and improve air quality.	The Project would involve development of an industrial use that inherently involves the emission of greenhouse gas (GHG) and air contaminant emissions. However, the Project's contribution would be within acceptable levels used by MDAQMD to assess GHG emission impacts and would incorporate mitigation measures to reduce impacts to air quality. In addition, according to the Southern California Association of Governments Comprehensive Regional Goods Movement Plan and Implementation Strategy, the region will run out of suitably zoned vacant land designated for warehouse facilities in or around 2028. Thus, the Project would meet the growing demand warehousing space, and would do so in an area that is proximate to regional highways (I-15 and U.S. Highway 395), thereby reducing the need for longer distance trips which could result in additional air pollutant and GHG emissions. Additionally, the Project would employ approximately 3,134 workers, helping the City better meet its jobs/housing balance, which should shorten commute distances of City residents who choose to work on the Project site, which would have a direct positive effect on tailpipe GHG and air contaminant emissions.	**Consistent**
Goal 6 Support healthy and equitable communities.	The Project would involve development of an industrial use that inherently involves the emission of GHG and air contaminant emissions. However, the Project's contribution would be within acceptable levels used by MDAQMD to assess GHG emission impacts and would incorporate mitigation measures to reduce impacts to air quality. In addition, according to the Southern California Association of Governments Comprehensive Regional Goods Movement Plan and Implementation Strategy, the region will run out of suitably zoned vacant land designated for warehouse	**Consistent**

Table 4.10-2. Consistency with 2020–2045 RTP/SCS Goals

RTP/SCS Goal	Project Applicable Component(s)	Consistency
	facilities in or around 2028. Thus, the Project would meet the growing demand warehousing space, and would do so in an area that is proximate to regional highways (I-15 and U.S. Highway 395), thereby reducing the need for longer distance trips which could result in additional air pollutant and GHG emissions. Additionally, development of the Project at the Project site would provide quick and efficient access to U.S. Highway 395 and I-15, thereby eliminating the need for truck traffic to take longer routes through residential or commercial/retail areas. The Project would also include a number of components that are designed to reduce energy use, such as incorporating energy efficiency design features in compliance with CALGreen standards.	
Goal 7 Adapt to a changing climate and support an integrated regional development pattern and transportation network.	As climate change continues to increase the number of instances of disruption to local and regional systems, it will become increasingly more urgent for local jurisdictions to employ strategies to reduce their individual contributions. The Project would involve development of an industrial use that inherently involves the emission of GHG and air contaminant emissions. However, the Project's contribution would be within acceptable levels used by MDAQMD to assess GHG emission impacts. In addition, according to the Southern California Association of Governments Comprehensive Regional Goods Movement Plan and Implementation Strategy, the region will run out of suitably zoned vacant land designated for warehouse facilities in or around 2028. Thus, the Project would meet the growing demand warehousing space, and would do so in an area that is proximate to regional highways (I-15 and U.S. Highway 395), thereby reducing the need for longer distance trips which could result in additional GHG emissions.	**Consistent**
Goal 8 Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	Development of the Project at the Project site would provide quick and efficient access to U.S. Highway 395 and I-15, thereby eliminating the need for truck traffic to take longer routes through residential or commercial/retail areas. The Project would also include a number of components that are designed to reduce energy use, such as incorporating energy efficiency design features in compliance with CALGreen standards. In addition, according to the Southern California Association of Governments Comprehensive Regional Goods Movement Plan and Implementation Strategy, the region will run out of suitably zoned vacant land designated for warehouse facilities in or around 2028. Thus, the Project would meet the growing demand warehousing space, and would do so in an area that is proximate to regional highways (I-15 and U.S. Highway 395), thereby reducing the need for longer distance trips which could result in additional air pollutant and GHG emissions.	**Consistent**

Table 4.10-2. Consistency with 2020–2045 RTP/SCS Goals

RTP/SCS Goal	Project Applicable Component(s)	Consistency
Goal 9 Encourage development of diverse housing types in areas that are supported by multiple transportation options.	The Project site is not zoned for housing, but rather commercial, industrial, and business uses.	**Not Applicable**
Goal 10 Promote conservation of natural and agricultural lands and restoration of habitats.	The Project would be located on an area zoned for commercial, industrial, and business uses. The Project site does not support agriculture. The Project site does support suitable habitat for sensitive plant and wildlife species, and is identified as Joshua Tree Woodland, which is a CDFW community of concern. Mitigation measures have been outlined in this Draft EIR to offset potentially significant impacts to suitable on-site habitat, sensitive plant and wildlife species, and Joshua Tree Woodland.	**Consistent**

Source: SCAG 2020.
City = City of Hesperia; I = Interstate; EIR = Environmental Impact Report; DIF = Development Impact Fee; MDAQMD = Mojave Desert Air Quality Management District

As described in Table 4.10-2, the Project would be consistent with the applicable goals and policies set forth by the in the RTP/SCS.

City of Hesperia General Plan Circulation Element

The General Plan Circulation Element outlines the City's goals and implementation policies to provide a safe and efficient transportation system strategy. These goals and implementation policies are provided in detail in Section 4.10.2, Relevant Plans, Policies, and Policies, and primarily pertain to LOS of transportation facilities in the City.

As discussed previously, a TIA was prepared to evaluate the Project's effects on the LOS on transportation facilities in the Project area. The detailed results are provided in Appendix K-1 and are also summarized later below. Based on the results of the TIA, the Project would be consistent with the goals and policies under General Plan Circulation Element. Although the City's LOS policy was determined to no longer be applicable as a transportation impact under CEQA per SB 743, some of the intersections would not comport with Policy CI-2.1, 2.2 and 2.3 under General Plan Goal: CI-2 Develop and implement a City-wide Congestion Management Plan of the City's General Plan, as they would operate or are forecast to operate at unsatisfactory (LOS E or F) conditions during either the AM or PM peak hours (City of Hesperia 2010):

Policy CI-2.1 Strive to achieve and maintain a LOS D or better on all roadways and intersections: LOS E during peak hours shall be considered acceptable through freeway interchanges and major corridors (Bear Valley Road, Main Street/Phelan Road, Highway 395).

Policy CI-2.2 Work with regional agencies which have authority over roadways within the City to ensure a minimum Level of Service D for roadways and a minimum Level of Service E for intersections.

Policy CI-2.3 Develop policies and regulations to ensure that future development does not reduce the Level of Service of roadways and intersections below the minimum Levels of Service goals.

Although development (as summarized below) of the Project would exceed the LOS goals stated in Policy CI-2.1, 2.2 and 2.3, and improvement measures to achieve acceptable LOS have been provided in Section 4.10.5, Mitigation Measures and Level of Significance After Mitigation, LOS has been addressed herein for informational purposed only and can no longer be used to determine significant transportation impacts under CEQA and SB 743. The Project would not conflict with any other policy of the City's Circulation Element, applicable Specific Plan and RTP/SCS.

Transit, Bicycle, and Pedestrian Facilities

Currently, VVTA Route 21W is the closest service route to the Project and the closest bus stop is approximately 0.25 miles from the Project site at the intersection of Phelan Road and Lilac Road. Routes 25, 64 and 68 are accessible from the bus stop located along Cataba Road, just north of Main Street and approximately 1.25 miles from the site. VVTA Route 21W could potentially serve the Project in the future. Transit service is reviewed and updated by VVTA periodically to address ridership, budget, and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate. As such, it is recommended that the Project applicant work in conjunction with VVTA to potentially provide bus service to the site.

The Project would not conflict with any plans or policies regarding existing or proposed bicycle and pedestrian facilities in the study area and would be consistent with the City of Hesperia General Plan Bike Plan (Figure 4.10-5).

Pedestrian facilities in the study area are shown in Figure 4.10-6. Currently, there are no sidewalks along the Project frontage and the intersections adjacent to the Project site do not currently have pedestrian crosswalks. As such, it is recommended that the Project applicant work in conjunction with the City to improve pedestrian facilities and connectivity along the Project frontage by constructing sidewalks and pedestrian crossings at intersections adjacent to the Project site.

Conclusion

Based on analysis provided above, the Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, and its impact to transportation plans and programs would be less than significant.

Threshold B: Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Significant and Unavoidable Impact. CEQA Guidelines Section 15064.3(b) focuses on newly adopted criteria (VMT) adopted pursuant to SB 743 for determining the significance of transportation impacts. As discussed in Section 4.10.2, Relevant Plans, Policies, and Ordinances, pursuant to SB 743, the focus of transportation analysis changes from vehicle delay to VMT. The related updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018. As stated in CEQA Guidelines Section 15064.3(c), the provisions of Section 15064.3 shall apply statewide on July 1, 2020.

> The City of Hesperia has yet to adopt its own VMT analysis guidelines and thresholds. City staff have recommended the VMT threshold of better than existing regional VMT until the City of Hesperia adopts its own guidelines and thresholds.

For the purposes of this EIR, the recommended VMT analysis methodology and thresholds identified within the OPR's Technical Advisory and SBCTA February 2020 guidelines have been used. The VMT analysis memorandum prepared by Urban Crossroads is included in Appendix K-2.

The San Bernardino Transportation Analysis Model (SBTAM) is a useful tool to estimate VMT as it considers interaction between different land uses based on socio-economic data such as population, households, and employment. The SBCTA Guidelines identifies SBTAM as the appropriate tool for conducting VMT analysis for land use projects in San Bernardino County.

Project VMT has been calculated using the most current version of SBTAM. Adjustments in socioeconomic data (SED) (i.e., employment) have been made to a traffic analysis zone (TAZ) within the SBTAM model to reflect the Project's proposed land uses (i.e., warehouse). As mentioned previously, the SBTAM model includes a truck component. Therefore, Project truck trips and truck related VMT are included in the Project's per-employee VMT, and the Project's VMT is a conservative estimate.

Table 4.10-3 summarizes the employment estimates for the Project. It should be noted that the employment estimates are consistent with the employment density factors identified in SCAG's Employment Density Study (SCAG 2001).

Table 4.10-3. Employment Estimates

Land Use	Quantity (in square feet)	Employment Density Factor[1]	Estimated Employees
Warehouse	3,745,429	1 employee per 1,195 SF	3,134

Source: Appendix K-2
1 Table II-B of the SCAG Employment Density Study (SCAG 2001)

Adjustments to employment factors for the Project TAZ were made to both the SBTAM base year model (2012) and the cumulative year model (2040). Project VMT was then calculated for both the base year model (2012) and cumulative year model (2040) and linear interpolation was used to determine the Project's baseline (2020) VMT. The VMT is then normalized by dividing by the Project's service population (SP) (e.g., employees). As shown in Table 4.10-4, Project Vehicle Miles Traveled per Service Population, the Project baseline (2020) VMT per SP is 39.25.

Table 4.10-4. Project Vehicle Miles Traveled per Service Population

	Baseline 2020
Employment	3,134
Vehicle Miles Traveled	123,022
Vehicle Miles Traveled/Service Population[1]	39.25

Source: Appendix K-2
1 Since the Project does not have a residential component, the service population consists entirely of employment.

SBCTA provides VMT calculations for each of its member agencies and for the County of San Bernardino region. Urban Crossroads has obtained this data from SBCTA which identifies that the existing San Bernardino County VMT per SP for is 32.66.

Table 4.10-5, Project Vehicle Miles Traveled per Service Population Comparison, shows the comparison between Project-generated VMT per SP to the baseline (2016) regional (San Bernardino County) VMT per SP, which was derived from the SBTAM base year model by SBCTA and their consultant. As shown, the Project would exceed the

current threshold of the baseline County of San Bernardino VMT per SP. The Project VMT impact is therefore significant and unavoidable.

Table 4.10-5. Project Vehicle Miles Traveled per Service Population Comparison

	Baseline (2020) VMT/SP
Project	39.25
San Bernardino County Regional Baseline (2016)	32.66
Percent Change	+18.58%
Below the Regional Baseline?	No

Source: Appendix K-2
VMT = vehicle miles traveled; SP = service population

Threshold C: Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Hazardous Design Features and Incompatible Uses

Less-than-Significant Impact. The Project is anticipated to be developed within a single phase with an anticipated opening year of 2021. Regional access to the Project site is available from the I-15/Main Street interchange. The Project is located north of Phelan Road and west of U.S. Highway 395 in the City of Hesperia. Vehicular and truck traffic access will be provided via the following driveways:

- Driveway 1 via Phelan Road – Right-In/Right-Out/Left-Out access for both passenger cars and trucks (no left-in access)
- Driveway 2 via Yucca Terrace Drive – Full access for both passenger cars and trucks
- Driveway 3 via Yucca Terrace Drive – Full access for both passenger cars and trucks
- Driveway 4 via Phelan Road – Full access for both passenger

The City of Hesperia does not have a designated truck route map. As shown in Figure 4.10-10, per consultation with the City, trip distribution pattern for truck traffic was determined. The majority of trucks would use roadway segments of Main Street/Yucca Drive and U.S. Highway 395 adjacent to the Project site to access I-15 via the I-15/Main Street interchange. 45% of the trucks are estimated to travel northbound and 50% of the trucks would travel southbound along I-15. Since the Project is located within the Hesperia Main Street and Freeway Corridor Specific Plan and most of the truck traffic will be distributed along the freeway, the introduction of Project-related truck trips would not be considered an incompatible use.

All roadway improvements required as a result of the Project, whether located on or off site, would be designed and constructed in accordance with all applicable local, state, and federal roadway standards and practices. The Project driveways intersections along Main Street/Yucca Drive and Yucca Terrace Drive have been analyzed as intersections (#4, #5, #6, and #7) and will be improved and designed per local standards to accommodate Project traffic. Figure 4.10-13 shows site adjacent roadway and site-access recommendations, and Figure 4.10-14, Truck Access, shows the truck inbound and outbound path at the Project driveways. As shown, the Project driveways are anticipated to accommodate the wide turning radius of trucks as currently designed.

These improvements would be overseen by the applicable lead agency and their qualified traffic engineers and are detailed in Section 4.10.5. This approach would ensure compliance with any and all applicable roadway design

requirements. As such, no hazardous design features would be part of the Project's roadway improvements. Therefore, impacts associated with hazardous design features or incompatible uses in conjunction with the implementation of improvements would be less than significant.

Queuing Analysis

Significant and Unavoidable. A queuing analysis was performed for U.S. Highway 395 from Luna Road to Joshua Street to assess vehicle queues along the roadways. There are no intersection turning movements that currently experience periodic queuing issues during the peak hours based on the 95th percentile peak hour traffic flows.

A queuing analysis was performed for the off-ramps at the I-15 and Main Street interchange to assess vehicle queues for the off ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the I-15 mainline. There are no off-ramp movements that are currently experiencing queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows.

Existing plus Project

As shown in Table 4.10-6, Peak-Hour Queuing Summary for Existing Plus Project Conditions, the following intersection is anticipated to experience periodic queuing issues during the peak hours based on the 95th percentile peak hour traffic flows with the addition of Project traffic under Existing plus Project traffic conditions:

- U.S. Highway 395/Phelan Road/Main Street (#12) Southbound Left – AM and PM peak hours

There are no off-ramp movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows.

Opening Day plus Project

As shown in Table 4.10-7, Peak-Hour Queuing Summary for Opening Year Cumulative (2021) Plus Project Conditions, the following intersection turning movements are anticipated to experience periodic queuing issues during the peak hours based on the 95th percentile peak hour traffic flows for Opening Year Cumulative (2021) Without Project traffic conditions:

- U.S. Highway 395/Phelan Road/Main Street (#12) Southbound Left – AM and PM peak hours
- U.S. Highway 395/Three Flags Road (#14) Northbound Left – AM and PM peak hours

The following additional intersection turning movement is anticipated to experience queuing issues during the peak hours based on the 95th percentile peak hour traffic flows with the addition of Project traffic for Opening Year Cumulative (2021) With Project traffic conditions:

- U.S. Highway 395 and Phelan Road/Main Street (#12) Northbound Left – AM and PM peak hours

There are no off-ramp movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows under Opening Year Cumulative (2021) With Project traffic conditions.

Horizon Year (2040) plus Project

As shown in Table 4.10-8, Peak-Hour Queuing Summary for Horizon Year (2040) Plus Project Conditions, the following intersection turning movements are anticipated to experience periodic queuing issues during the peak hours based on the 95th percentile peak hour traffic flows for Horizon Year (2040) Without Project traffic conditions:

- U.S. Highway 395/Bear Valley Road (#9) Northbound Left – AM and PM peak hours
- U.S. Highway 395/Bear Valley Road (#9) Southbound Left – AM and PM peak hours
- U.S. Highway 395/Phelan Road/Main Street (#12) Northbound Left – PM peak hour only
- U.S. Highway 395/Phelan Road/Main Street (#12) Southbound Left – AM and PM peak hours
- U.S. Highway 395/Poplar Street (#13) Southbound Left – AM and PM peak hours
- U.S. Highway 395/Three Flags Road (#14) Northbound Left – AM and PM peak hours
- U.S. Highway 395/Joshua Street (#15) Southbound Left – AM and PM peak hours

There are no additional intersection turning movements that are anticipated to experience queuing issues during the peak hours based on the 95th percentile peak hour traffic flows for Horizon Year (2040) With Project traffic conditions, in addition to the movements identified under Horizon Year (2040) Without Project traffic conditions.

There are no off-ramp movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows with the addition of Project traffic under Horizon Year (2040) With Project traffic conditions.

Improvement measures required to mitigate Project's impact would include fair-share contribution to Intersections #9, #12, #13, #14, and #15. Since the City does not have jurisdiction over some of these facilities, these improvements cannot be assumed to be in place prior to Project's occupancy. Therefore, Project's impact to increase in hazardous conditions (i.e. queuing) would be significant and unavoidable.

Threshold D: Would the Project result in inadequate emergency access?

Less-than-Significant Impact. As mentioned above, the Project has four access driveways and in the event of an emergency all the driveways would enable vehicles to enter/exit the Project site. All streets improvements will be designed with adequate width, turning radius, and grade to facilitate access by City's firefighting apparatus, and to provide alternative emergency ingress and egress. The site plan would be subject to plan review by the City's Fire Department to ensure proper access for fire and emergency response is provided and required fire suppression features are included. Therefore, the Project's impact due to inadequate emergency access would be less than significant.

Threshold E: Would the Project result in cumulatively considerable transportation impacts?

Significant and Unavoidable Impact. A TIA was prepared to evaluate the Project's effects on the LOS on transportation facilities in the Project area. The Project's cumulative contribution to traffic-related impacts has been analyzed under Opening Year and Horizon Year analyses within the TIA and summarized under Threshold A. Some of the study area intersections would not comport with Policy CI-2.1, 2.2 and 2.3 under General Plan Goal: CI-2 Develop and implement a City-wide Congestion Management Plan of the City's General Plan, as they would operate or are forecast to operate at unsatisfactory (LOS E or F) conditions during either the AM or PM peak hours. However, LOS has been addressed herein for informational purposed only and can no longer be used to determine significant transportation impacts under CEQA and SB 743.

As discussed above in Threshold B, the Project would exceed the current threshold of the baseline County of San Bernardino VMT per SP, resulting in a Project-specific VMT impact that is therefore significant and unavoidable. OPR's Technical Advisory states the following, "a project that falls below an efficiency-based threshold that is aligned with long-term goals and relevant plans has no cumulative impact distinct from the project impact. Accordingly, a finding of a less-than-significant project impact would imply a less than significant cumulative impact and vice versa. Therefore, the Project's finding related to cumulative VMT impacts is considered potentially significant. MM-TRA-1 would be implemented. However, the effectiveness of some of the TDM strategies that have potential to reduce the Project VMT are dependent on yet unknown Project building tenant(s); and as noted above, VMT reductions from TDM strategies cannot be guaranteed in most cases. Therefore, Project's cumulative impact with respect to VMT would be significant and unavoidable.

In addition, the Project may increase a hazardous condition due to queuing impacts at the intersections #9, #12, #13, #14, and #15 under the Horizon Year (2040) plus Project analysis scenario. Since the City does not have jurisdiction over some of these facilities, these improvements cannot be assumed to be in place prior to Project's occupancy. Therefore, Project's impact to increase in hazardous conditions (i.e. queuing) would be significant and unavoidable, and thus, the Project could contribute to a cumulatively considerable impact associated with queuing and hazardous design features.

Table 4.10-6. Peak-Hour Queuing Summary for Existing Plus Project Conditions

Intersection	Movement	Available Stacking Distance (Feet)	Existing (2019)				E+P			
			95th Percentile Queue (Feet)		*Acceptable?*[1]		*95th Percentile Queue (Feet)*		*Acceptable?* [1]	
			AM Peak Hour	*PM Peak Hour*	*AM*	*PM*	*AM Peak Hour*	*PM Peak Hour*	*AM*	*PM*
U.S. Highway 395 & Luna Rd.	NBL	360	67	99	Yes	Yes	67	99	Yes	Yes
	NBR	455	4	31	Yes	Yes	5	36	Yes	Yes
	SBL	400	240	242	Yes	Yes	240	242	Yes	Yes
	SBR	400	24	28	Yes	Yes	24	28	Yes	Yes
U.S. Highway 395 & Bear Valley Rd.	NBL	220	160[2]	228[2,3]	Yes	Yes	160[2]	228[2]	Yes	Yes
	SBL	230	232[2,3]	224[2]	Yes	Yes	232[2,3]	224[2]	Yes	Yes
U.S. Highway 395 & Eucalyptus St.	NBL	475	23	25	Yes	Yes	25	39	Yes	Yes
	NBR	345	10	28	Yes	Yes	12	36	Yes	Yes
	SBL	440	15	30	Yes	Yes	15	30	Yes	Yes
	SBR	300	0	0	Yes	Yes	0	0	Yes	Yes
U.S. Highway 95 & Phelan Rd./Main St.	NBL	280	128	198	Yes	Yes	289[2,3]	218	Yes	Yes
	SBL	250	238	263[2,3]	Yes	Yes	**337**[2]	**879**[2]	**No**	**No**
U.S. Highway 395 & Poplar St.	SBL	375	3	3	Yes	Yes	3	3	Yes	Yes
U.S. Highway 395 & Three Flags Rd.	NBL	190	45	58	Yes	Yes	45	58	Yes	Yes
	NBR	190	0	26	Yes	Yes	25	26	Yes	Yes
	SBL	225	41	58	Yes	Yes	41	58	Yes	Yes
	SBR	225	22	12	Yes	Yes	22	12	Yes	Yes
U.S. Highway 395 & Joshua St.	NBL	190	24	51	Yes	Yes	24	51	Yes	Yes
	NBR	330	14	29	Yes	Yes	14	29	Yes	Yes
	SBL	220	138	101	Yes	Yes	143	152[2]	Yes	Yes
I-15 SB Ramps & Main St.	SBL	1,750	48	122	Yes	Yes	77	171	Yes	Yes
	SBR	1,200	30	211	Yes	Yes	454[2]	383	Yes	Yes
I-15 NB Ramps & Main St.	NBL	1,290	51	133	Yes	Yes	402	199	Yes	Yes
	NBT/R	1,200	65	342	Yes	Yes	80	360	Yes	Yes
	NBR	700	66	342	Yes	Yes	81	358	Yes	Yes

Source: Appendix K-1

1 Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided.

2 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

3 An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table.

Table 4.10-7. Peak-Hour Queuing Summary for Opening Year Cumulative (2021) Plus Project Conditions

Intersection	Movement	Available Stacking Distance (Feet)	2021 Without Project				2021 With Project			
			95th Percentile Queue (Feet)		*Acceptable?*[1]		*95th Percentile Queue (Feet)*		*Acceptable?* [1]	
			AM Peak Hour	*PM Peak Hour*	*AM*	*PM*	*AM Peak Hour*	*PM Peak Hour*	*AM*	*PM*
U.S. Highway 395 & Luna Rd.	NBL	360	67	102	Yes	Yes	67	102[3]	Yes	Yes
	NBR	455	6	34	Yes	Yes	6	36	Yes	Yes
		400	246	253	Yes	Yes	246	253	Yes	Yes
	SBR	400	24	28	Yes	Yes	24	28	Yes	Yes
U.S. Highway 395 & Bear Valley Rd.	NBL	220	166[2]	225[2,3]	Yes	Yes	166[2]	225[2,3]	Yes	Yes
	SBL	230	236[2,3]	235[2,3]	Yes	Yes	236[2,3]	235[2,3]	Yes	Yes
U.S. Highway 395 & Eucalyptus St.	NBL	475	23	25	Yes	Yes	25	39	Yes	Yes
	NBR	345	12	30	Yes	Yes	14	42	Yes	Yes
	SBL	440	15	32	Yes	Yes	15	32	Yes	Yes
	SBR	300	0	0	Yes	Yes	0	0	Yes	Yes
U.S. Highway 95 & Phelan Rd./Main St.	NBL	280	207[2]	293[2,3]	Yes	Yes	**378**[2]	**330**[2]	**No**	**No**
	SBL	250	**382**[2]	**526**[2]	**No**	**No**	**492**[2]	**1,122**[2]	**No**	**No**
U.S. Highway 395 & Poplar St.	SBL	375	3	3	Yes	Yes	3	3	Yes	Yes
U.S. Highway 395 & Three Flags Rd.	NBL	190	**263**	**241**	**No**	**No**	**263**	**241**	**No**	**No**
	NBR	190	28	35	Yes	Yes	28	37	Yes	Yes
	SBL	225	46	66[2]	Yes	Yes	46	66[2]	Yes	Yes
	SBR	225	50	28	Yes	Yes	50	28	Yes	Yes
U.S. Highway 395 & Joshua St.	NBL	190	32	53	Yes	Yes	32	53	Yes	Yes
	NBR	330	18	37	Yes	Yes	18	39	Yes	Yes
	SBL	220	230[2,3]	207	Yes	Yes	235[3]	235[3]	Yes	Yes
I-15 SB Ramps & Main St.	SBL	1,750	71	175	Yes	Yes	109	184	Yes	Yes
	SBR	1,200	96	342	Yes	Yes	737[2]	460	Yes	Yes
I-15 NB Ramps & Main St.	NBL	1,290	107	163	Yes	Yes	633[2]	234	Yes	Yes
	NBT/R	1,200	129	394	Yes	Yes	143	394	Yes	Yes
	NBR	700	131	394	Yes	Yes	145	394	Yes	Yes

Source: Appendix K-1

1 Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided.

2 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

3 An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table

Table 4.10-8. Peak-Hour Queuing Summary for Horizon Year (2040) Plus Project Conditions

Intersection	Movement	Available Stacking Distance (Feet)	2040 Without Project				2040 With Project			
			95th Percentile Queue (Feet)		*Acceptable?[1]*		*95th Percentile Queue (Feet)*		*Acceptable?[1]*	
			AM Peak Hour	*PM Peak Hour*	*AM*	*PM*	*AM Peak Hour*	*PM Peak Hour*	*AM*	*PM*
U.S. Highway 395 & Luna Rd.	NBL	360	134[2]	204[2]	Yes	Yes	134[2]	204[2]	Yes	Yes
	NBR	455	18	49	Yes	Yes	19	52	Yes	Yes
	SBL	400	377[2]	387[2]	Yes	Yes	377[2]	387[2]	Yes	Yes
	SBR	400	31	32	Yes	Yes	32	32	Yes	Yes
U.S. Highway 395 & Bear Valley Rd.	NBL	220	**250**[2]	**659**[2]	**No**	**No**	**250**[2]	**659**[2]	**No**	**No**
	SBL	230	**504**[2]	**359**[2]	**No**	**No**	**504**[2]	**359**[2]	**No**	**No**
U.S. Highway 395 & Eucalyptus St.	NBL	475	26	32	Yes	Yes	29	44	Yes	Yes
	NBR	345	27	52	Yes	Yes	29	64	Yes	Yes
	SBL	440	26	38	Yes	Yes	26	38	Yes	Yes
	SBR	300	0	0	Yes	Yes	0	0	Yes	Yes
U.S. Highway 95 & Phelan Rd./Main St.	NBL	280	234[2]	**406**[2]	Yes	**No**	**407**[2]	**441**[2]	**No**	**No**
	SBL	250	**439**[2]	**640**[2]	**No**	**No**	**546**[2]	**1,230**[2]	**No**	**No**
U.S. Highway 395 & Poplar St.	SBL	375	**590**	**1,183**	**No**	**No**	**765**	**1,200**	**No**	**No**
U.S. Highway 395 & Three Flags Rd.	NBL	190	**482**[2]	**259**	**No**	**No**	**482**[2]	**259**	**No**	**No**
	NBR	190	32	51	Yes	Yes	38	51	Yes	Yes
	SBL	225	78[2]	149[2]	Yes	Yes	78	149[2]	Yes	Yes
	SBR	225	61	31	Yes	Yes	61	31	Yes	Yes
U.S. Highway 395 & Joshua St.	NBL	190	33	70[2]	Yes	Yes	33	70[2]	Yes	Yes
	NBR	330	36	63	Yes	Yes	36	65	Yes	Yes
	SBL	220	**314**	**224**	**No**	**No**	**324**[2]	**254**	**No**	**No**
I-15 SB Ramps & Main St.	SBL	1,750	112	250	Yes	Yes	160	250	Yes	Yes
	SBR	1,200	155	467	Yes	Yes	923[2]	597	Yes	Yes
I-15 NB Ramps & Main St.	NBL	1,290	155	187	Yes	Yes	802	261	Yes	Yes
	NBT/R	1,200	253	648[2]	Yes	Yes	254	648[2]	Yes	Yes
	NBR	700	258	648[2]	Yes	Yes	258	648[2]	Yes	Yes

Source: Appendix K-1

1 Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided.

2 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

3 An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table.

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4.10.5 Mitigation Measures and Level of Significance After Mitigation

Threshold A: Would the Project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

The Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, and its impact to transportation plans and programs would be **less than significant**. No mitigation is required.

Threshold B: Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Based on available research, for projects located within a suburban context, a maximum 10% reduction in VMT is achievable when combining multiple mitigation strategies. Furthermore, to even achieve a 10% reduction in VMT, a project would need to contain a diverse land use mix, workforce housing and project- specific transit options. Even under the most favorable circumstances, projects located within a suburban context, such as the Project evaluated here, could realize a maximum 10% reduction in VMT through implementation of feasible TDM measures. For the Project, this could result in reduction from 39.25 to 35.33 total VMT per service population which would still exceed the regional threshold of 32.66 total VMT per service population by 8.2%.

It is also recognized that as the Project area and surrounding communities develop as envisioned under the City of Hesperia General Plan. These actions could collectively alter transportation patterns, improve the region's jobs/housing ratio, diminish VMT, and support implementation of new or alternative TDM measures. There is no means, however, to quantify any VMT reductions that could result from implementation of MM-TRA-1. The Project's total VMT per service population exceeds the regional (San Bernardino County) threshold of better than existing total VMT per service population. Even with implementation of maximum feasible TDM measures, Project VMT cannot be reduced to levels that would be less-than-significant and the efficacy of TDM measures and reduction of VMT impacts below thresholds cannot be assured at this time. Additionally, the effectiveness of some of the TDM strategies that have potential to reduce the Project VMT are dependent on yet unknown Project building tenant(s); and as noted above, VMT reductions from TDM strategies cannot be guaranteed in most cases. Therefore, Project's impacts would be **significant and unavoidable**.

MM-TRA-1 The Project applicant shall submit a Transportation Demand Management (TDM) plan prepared by a qualified transportation consultant acceptable to the City of Hesperia to reduce Project's vehicle miles traveled. The TDM plan shall be approved by the City prior to the issuance of the first occupancy permit. The TDM plan shall apply to Project tenants through tenant leases. The TDM plan shall discourage single-occupancy vehicle trips and encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking. Examples of trip reduction measures may include, but are not limited to:

- Transit passes
- Car-sharing programs
- Telecommuting and alternative work schedules
- Ride sharing programs

Threshold C: Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The Project could result in potentially significant impacts associated with increasing hazards due to a geometric design feature related to queuing. Improvement measures required to mitigate Project's impact would include fair-share contribution to Intersections #9, #12, #13, #14, and #15. Since the City does not have jurisdiction over these facilities, these improvements cannot be assumed to be in place prior to Project's occupancy. Therefore, Project's impact to increase in hazardous conditions (i.e. queuing) would be **significant and unavoidable**.

Threshold D: Would the Project result in inadequate emergency access?

The Project would have a **less-than-significant impact** with regard to resulting in inadequate emergency access. No mitigation is required.

Threshold E: Would the Project result in cumulatively considerable transportation impacts?

The Project could result in potentially significant impacts with regard to cumulatively considerable transportation impacts. MM-TRA-1 would be implemented to reduce impacts with respect to cumulative VMT impacts; however, the effectiveness of some of the TDM strategies that have potential to reduce the Project VMT are dependent on yet unknown Project building tenant(s); and as noted above, VMT reductions from TDM strategies cannot be guaranteed in most cases. Therefore, Project's cumulative impact with respect to VMT would be **significant and unavoidable**. The Project may increase a hazardous condition due to queuing impacts at the intersections #9, #12, #13, #14, and #15 under the Horizon Year (2040) plus Project analysis scenario. Since the City does not have jurisdiction over some of these facilities, these improvements cannot be assumed to be in place prior to Project's occupancy. Therefore, Project's impact to increase in hazardous conditions (i.e. queuing) would be **significant and unavoidable**, and thus, the Project could contribute to a cumulatively considerable impact associated with queuing and hazardous design features.

4.10.6 References Cited

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SANBAG (San Bernardino Associated Governments). 2016. *San Bernardino County Congestion Management Program*. June 2016.

SBCTA (San Bernardino County Transportation Authority). 2019. *Recommended Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment*.

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SCAG. 2020. *Connect SoCal (2020–2045 Regional Transportation Plan/Sustainable Communities Strategy).* http://scagrtpscs.net/Documents/2020/2020RTPSCS_LocalInputProcessFS.pdf.

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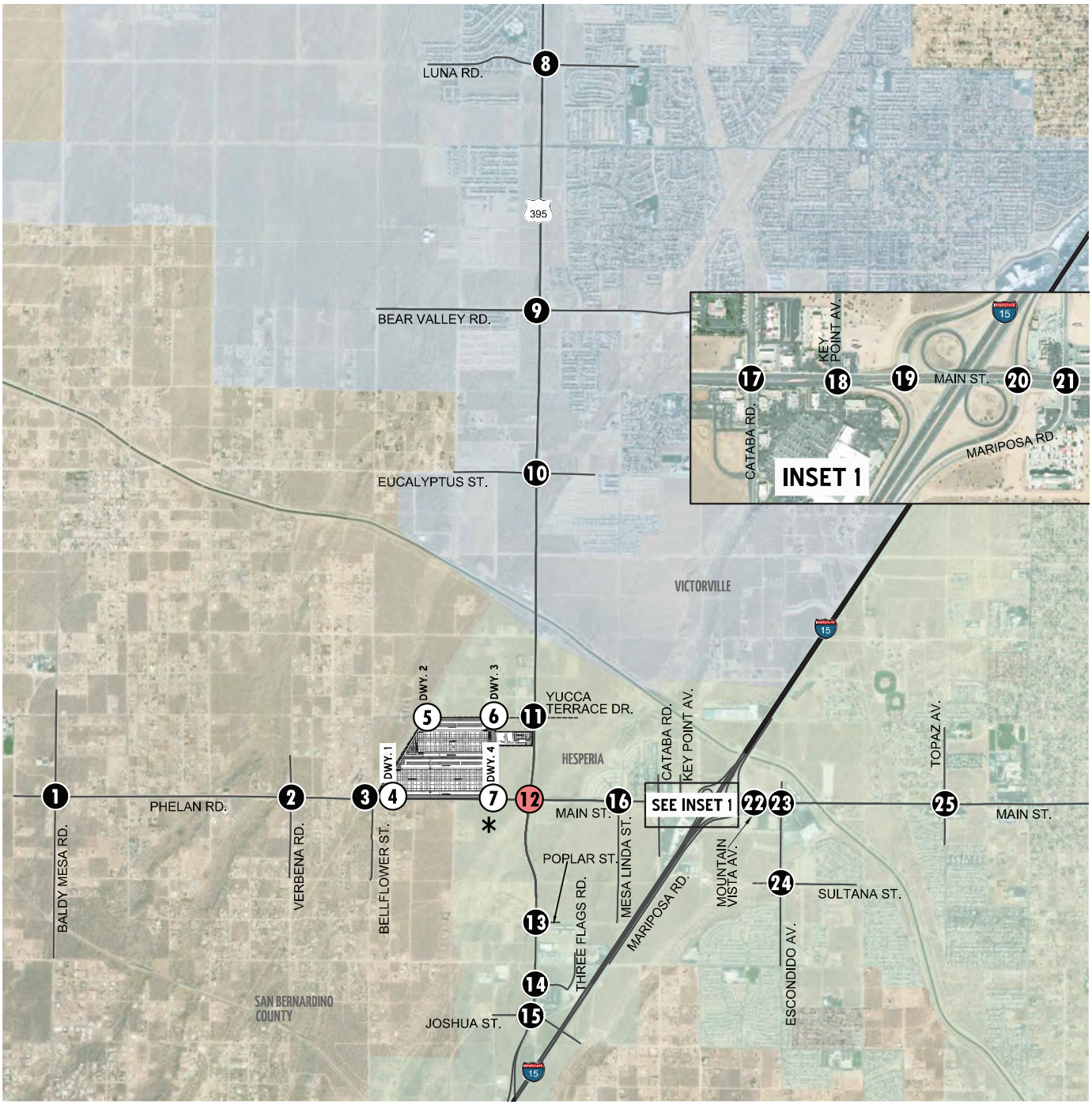

SOURCE: Urban Crossroads 2020

FIGURE 4.10-1

Project Site Location and Traffic Study Area

Hesperia Commerce Center II

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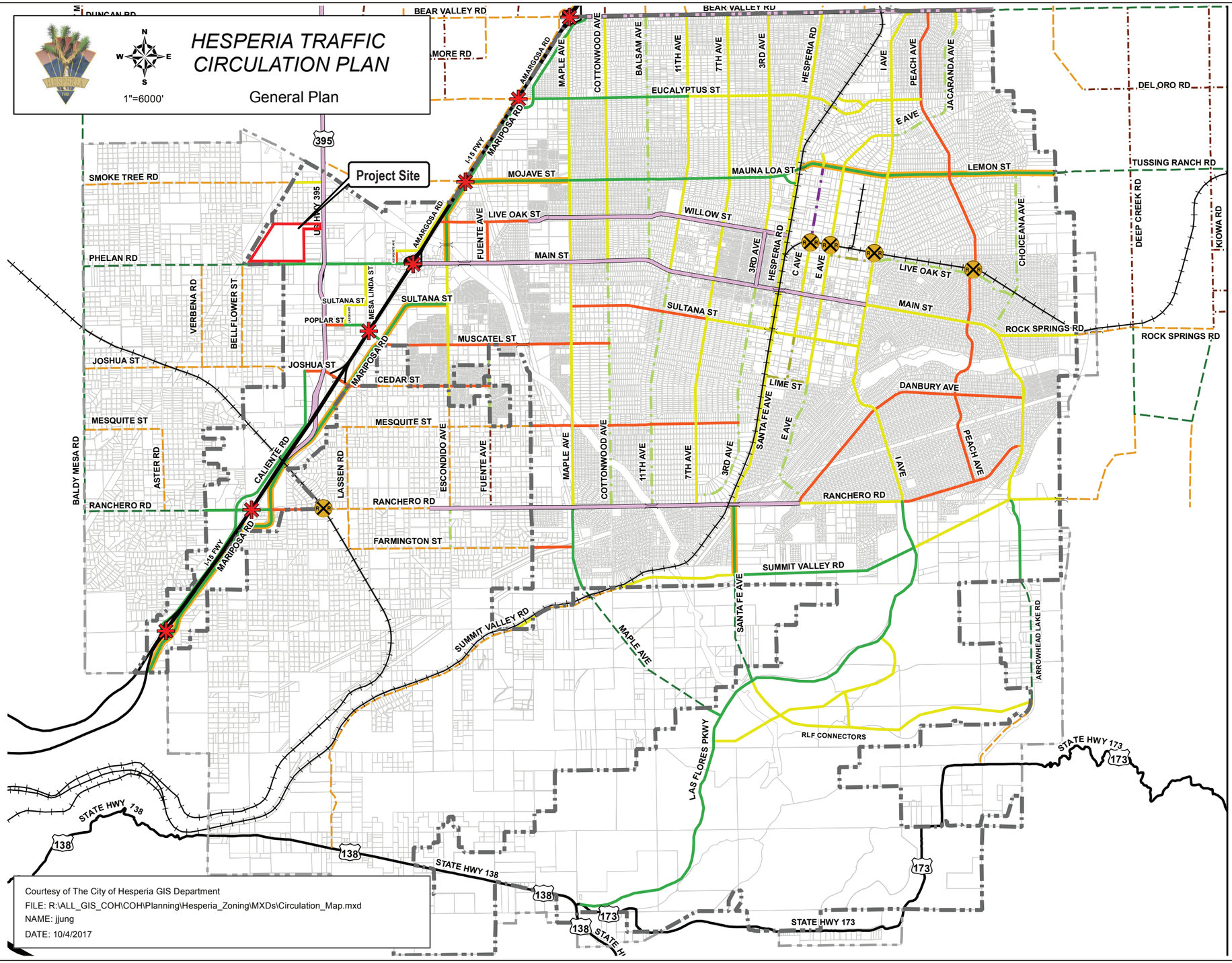

Roadway Classifications

Arterials

	(RoW)	(Curb-Curb)
Major Arterial	(120')	(104')* (92')**
Arterial	(100')	(72')
Secondary Arterial	(80')	(50')
Industrial Collector	(70')	(46')**
Suburban Collector	(60')	(36')**
Rural Collector	(60')	(48')* (40')**
Major Arterial w/Bike Lane	(128')	(104')*

* with bike lane
** without bike lane

Streets Outside City

- Major Arterial
- Arterial
- Colllector

Misc.

- City Boundary
- Sphere of Influence
- Railroad
- State Hwy
- At Grade Crossing
- Bridge/Overcrossing/Undercrossing
- Freeway Interchange

Special Street Sections

- Special Street

	(RoW)	(Curb-Curb)
Ranchero Road	(140')	(92')
US Highway 395	(130')	(106')
Bear Valley Road (halfwidth)	(64')	(52')
Enhanced 3rd Avenue	(100')	(76')
Main Street Corridor "A"	(120')	(88')
Main Street Corridor "B"	(105')	(70')
Modified Live Oak-Willow St	(80')	(40')

For more information on these streets, please refer to sections in the Circulation Element text

SOURCE: City of Hesperia 2017

FIGURE 4.10-2

City of Hesperia General Plan Circulation Element

Hesperia Commerce Center II

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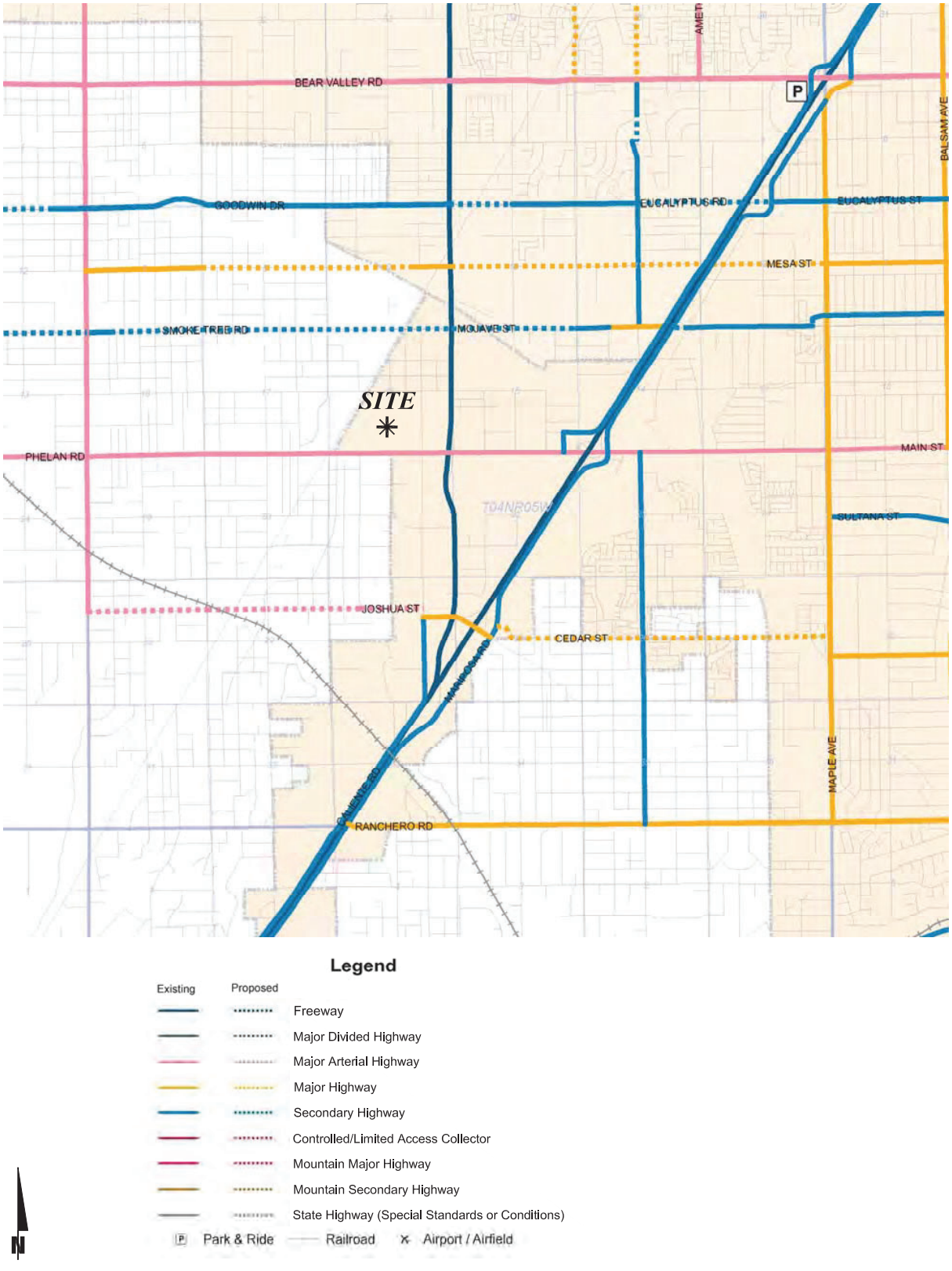

SOURCE: Urban Crossroads 2020

FIGURE 4.10-3

County of San Bernardino General Plan Circulation Element

Hesperia Commerce Center II

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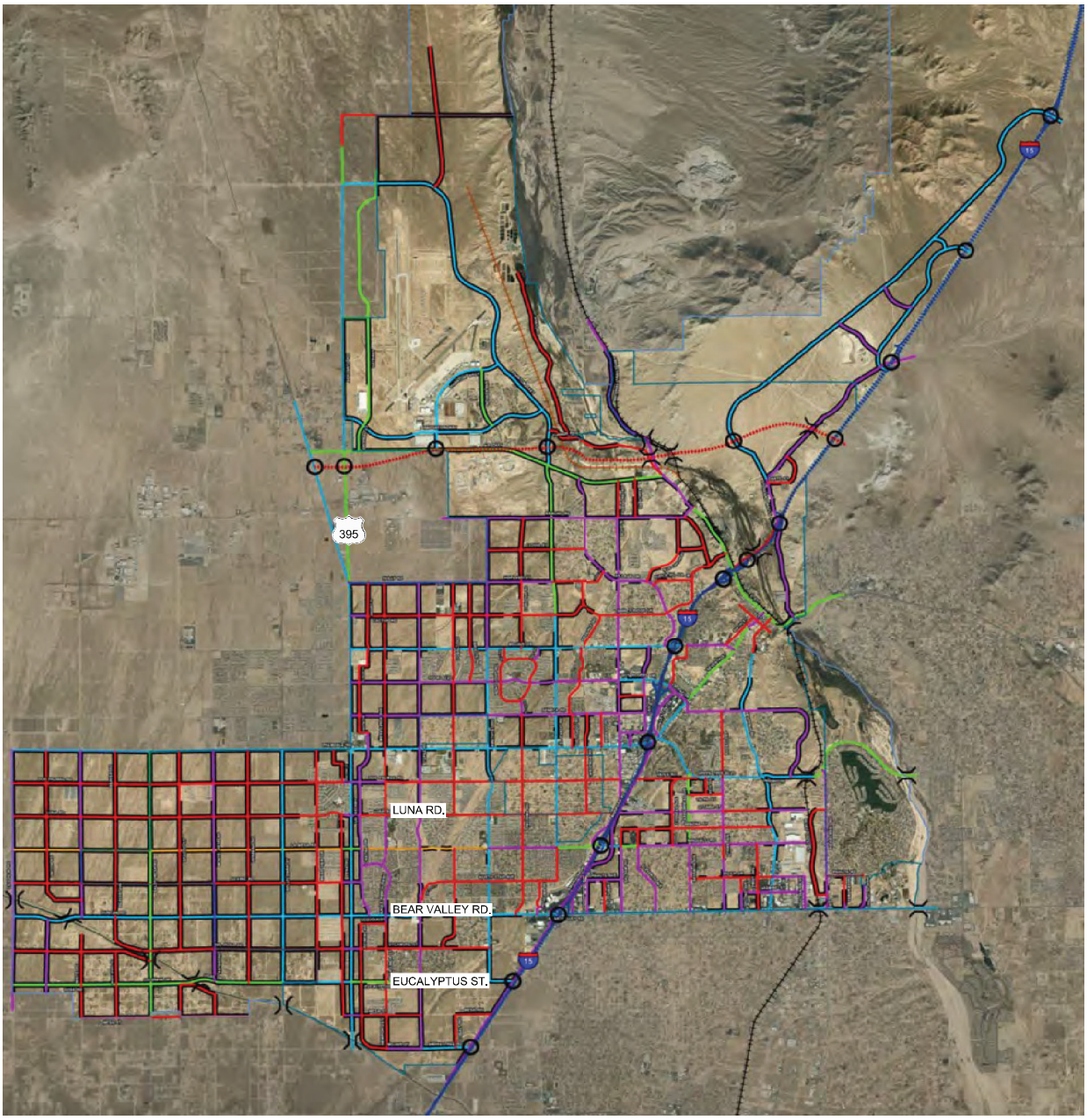

SOURCE: Urban Crossroads 2020

FIGURE 4.10-4

City of Victorville General Plan Circulation Element

Hesperia Commerce Center II

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CITY OF HESPERIA NON-MOTORIZED TRANSPORTATION PLAN

1"=4000'

Project Site

Park & Ride Facility

CITY HALL

Legend

- City Boundary
- Schools
- Parks

Apple Valley Bike Paths

- Class I Bike Path
- Class II Bike Path

Hesperia Bike Paths

- Class I Bike Path
- Class II Bike Path
- Class III Bike Path
- Completed Facility

Courtesy of The City of Hesperia GIS Department
Y:\ALL_GIS_COH\COH\Engineering\Non-Motorized_Transportation_Plan_11x17.mxd
8/17/09

SOURCE: City of Hesperia 2009

FIGURE 4.10-5

City of Hesperia General Plan Bike Plan

Hesperia Commerce Center II

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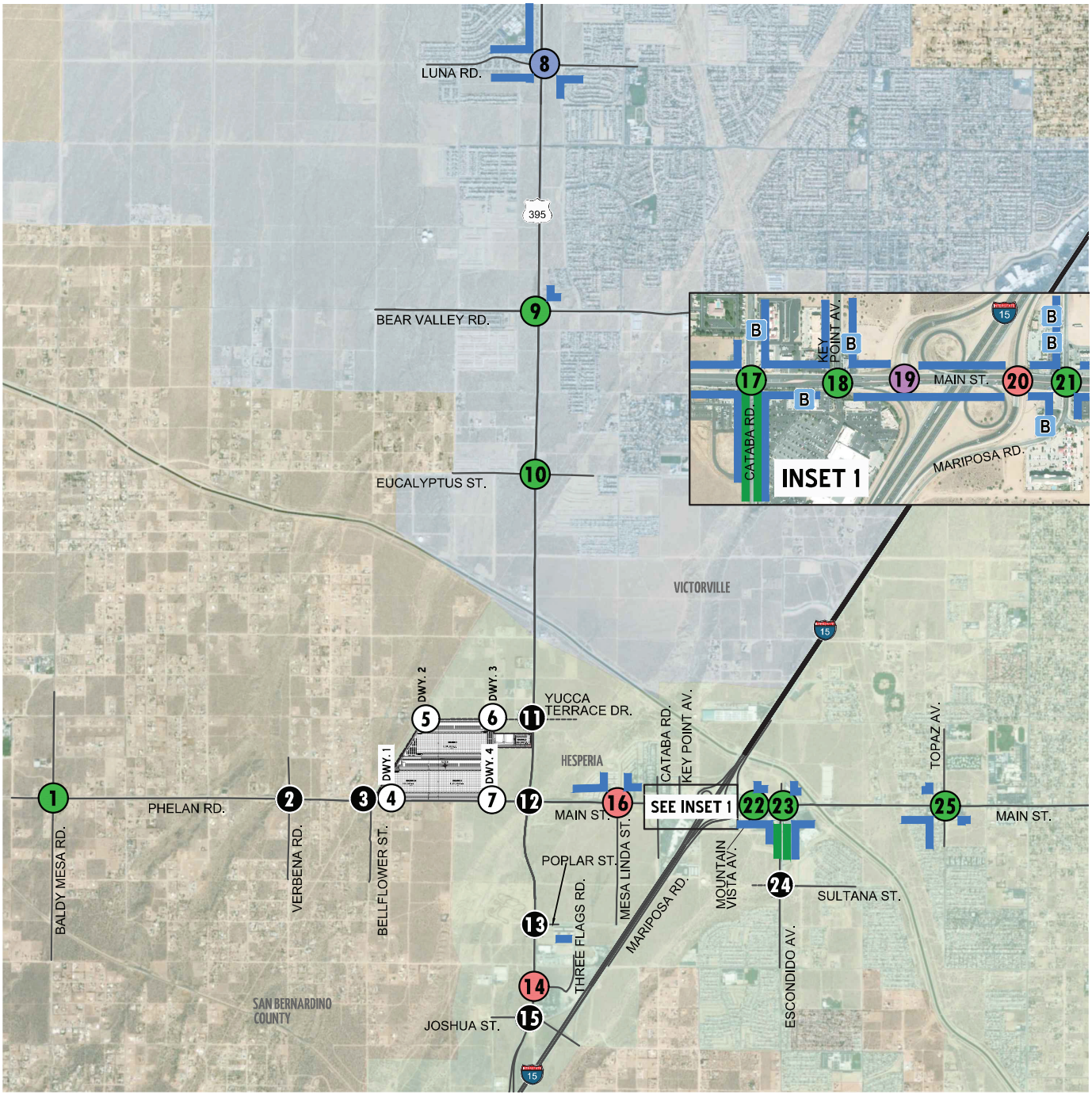

LEGEND:

- = SIDEWALK
- = BIKE LANE
- B = BUS STOP
- 0 = NO CROSSWALK
- 0 = FUTURE INTERSECTION
- 0 = CROSSWALK ON ALL APPROACHES
- 0 = CROSSWALK ON THREE APPROACHES
- 0 = CROSSWALK ON TWO APPROACHES
- 0 = CROSSWALK ON ONE APPROACH

SOURCE: Urban Crossroads 2020

FIGURE 4.10-6

Existing Pedestrian Facilities

Hesperia Commerce Center II

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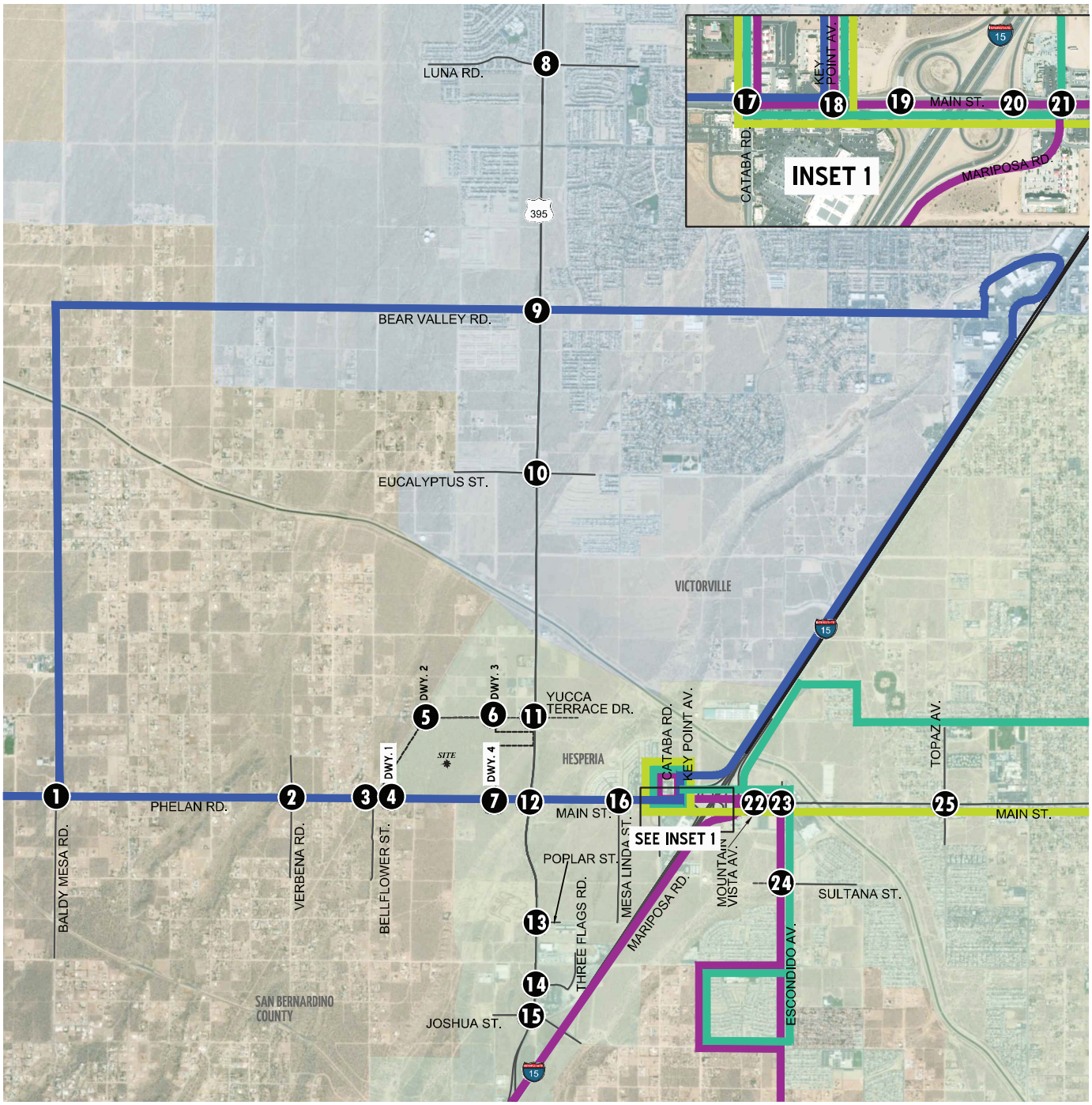

SOURCE: Urban Crossroads 2020

FIGURE 4.10-7

Existing Transit Routes

Hesperia Commerce Center II

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SOURCE: Urban Crossroads 2020

FIGURE 4.10-8

City of Victorville State Rail and Truck Routes

Hesperia Commerce Center II

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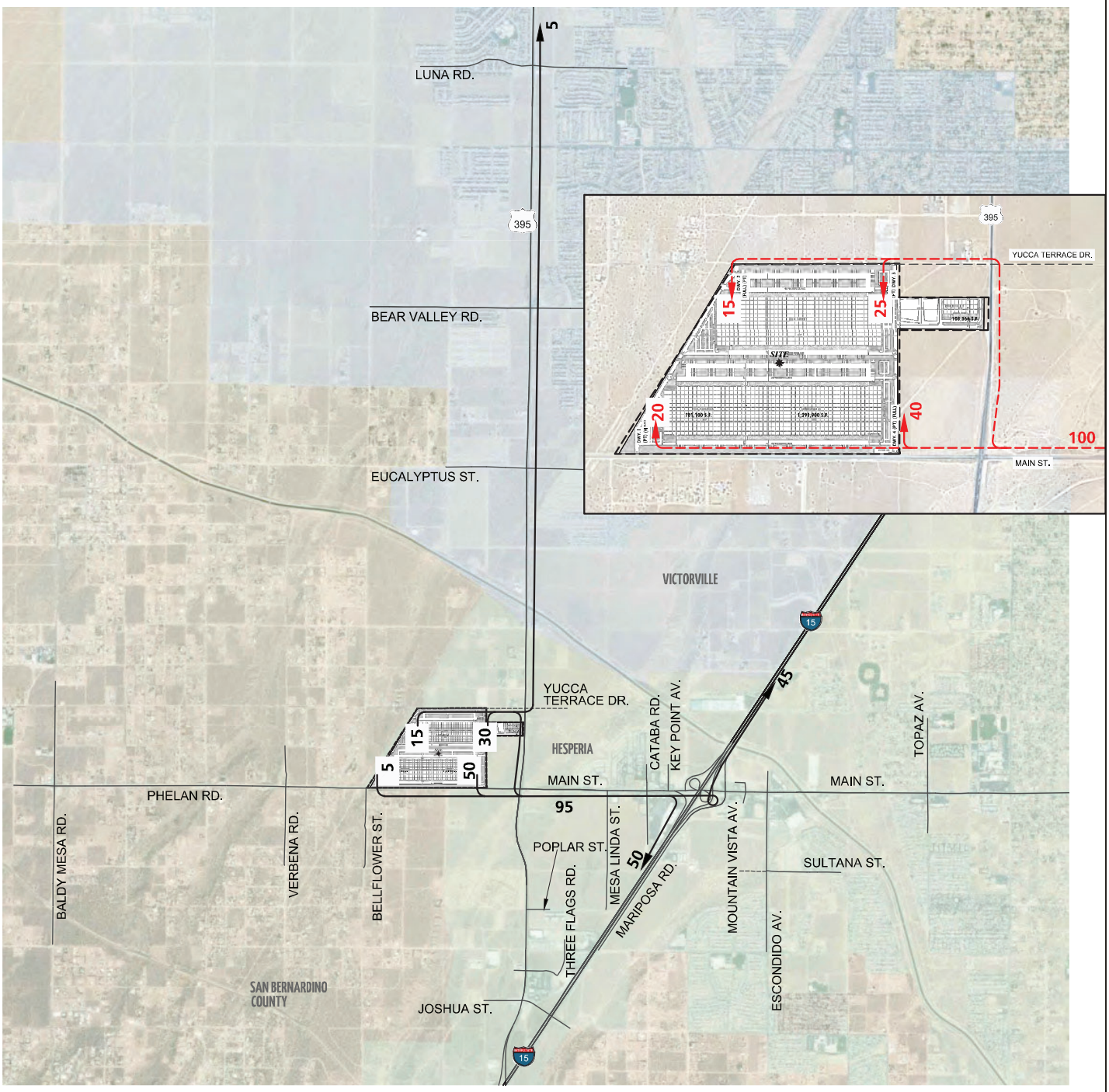

LEGEND:

10 = PERCENT TO/FROM PROJECT

= OUTBOUND

= INBOUND

N

SOURCE: Urban Crossroads 2020

FIGURE 4.10-9

Project (Truck) Trip Distribution

Hesperia Commerce Center II

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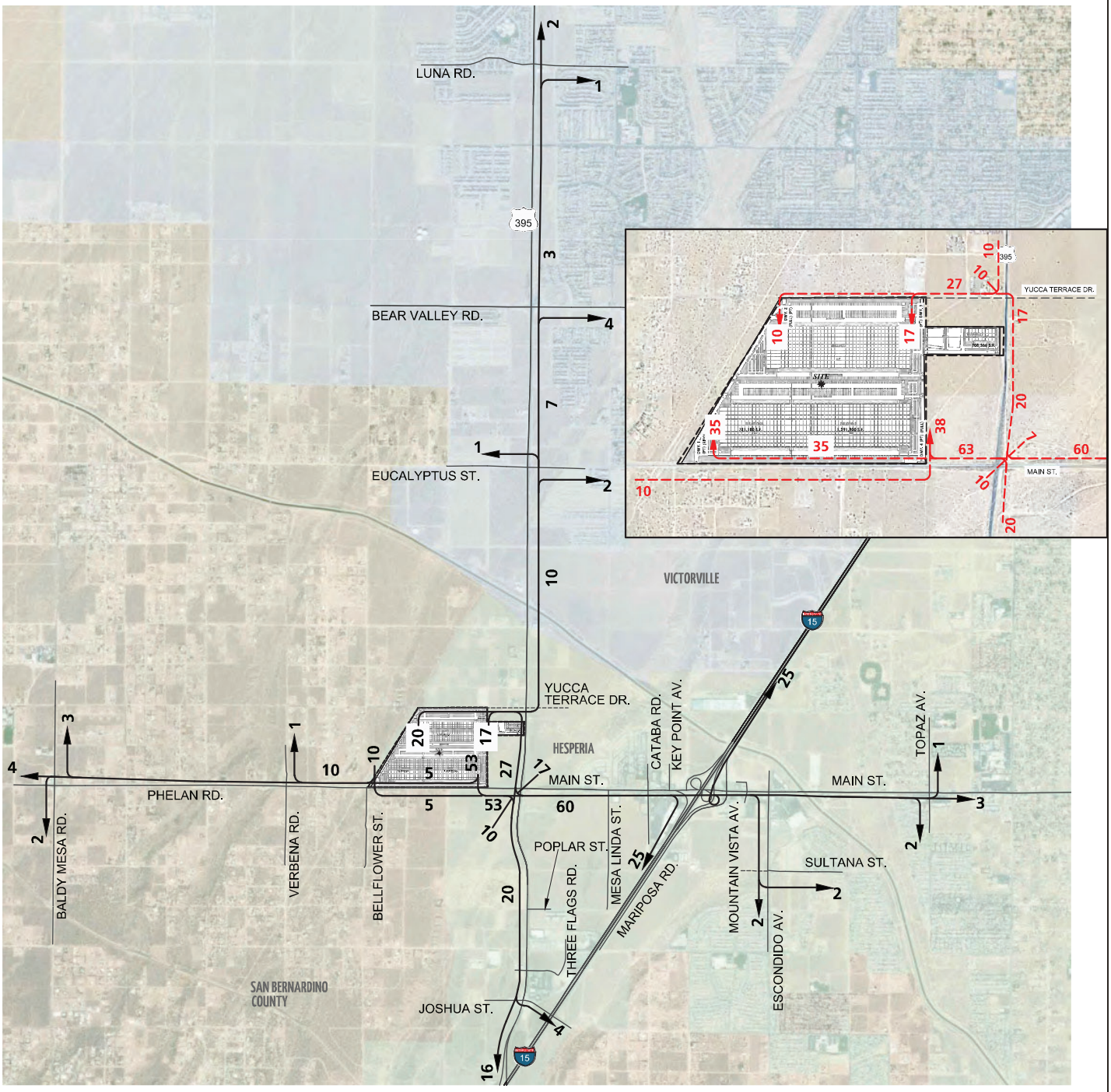

LEGEND:

10 = PERCENT TO/FROM PROJECT

= OUTBOUND

= INBOUND

SOURCE: Urban Crossroads 2020

FIGURE 4.10-10

Project (Passenger Car) Trip Distribution

Hesperia Commerce Center II

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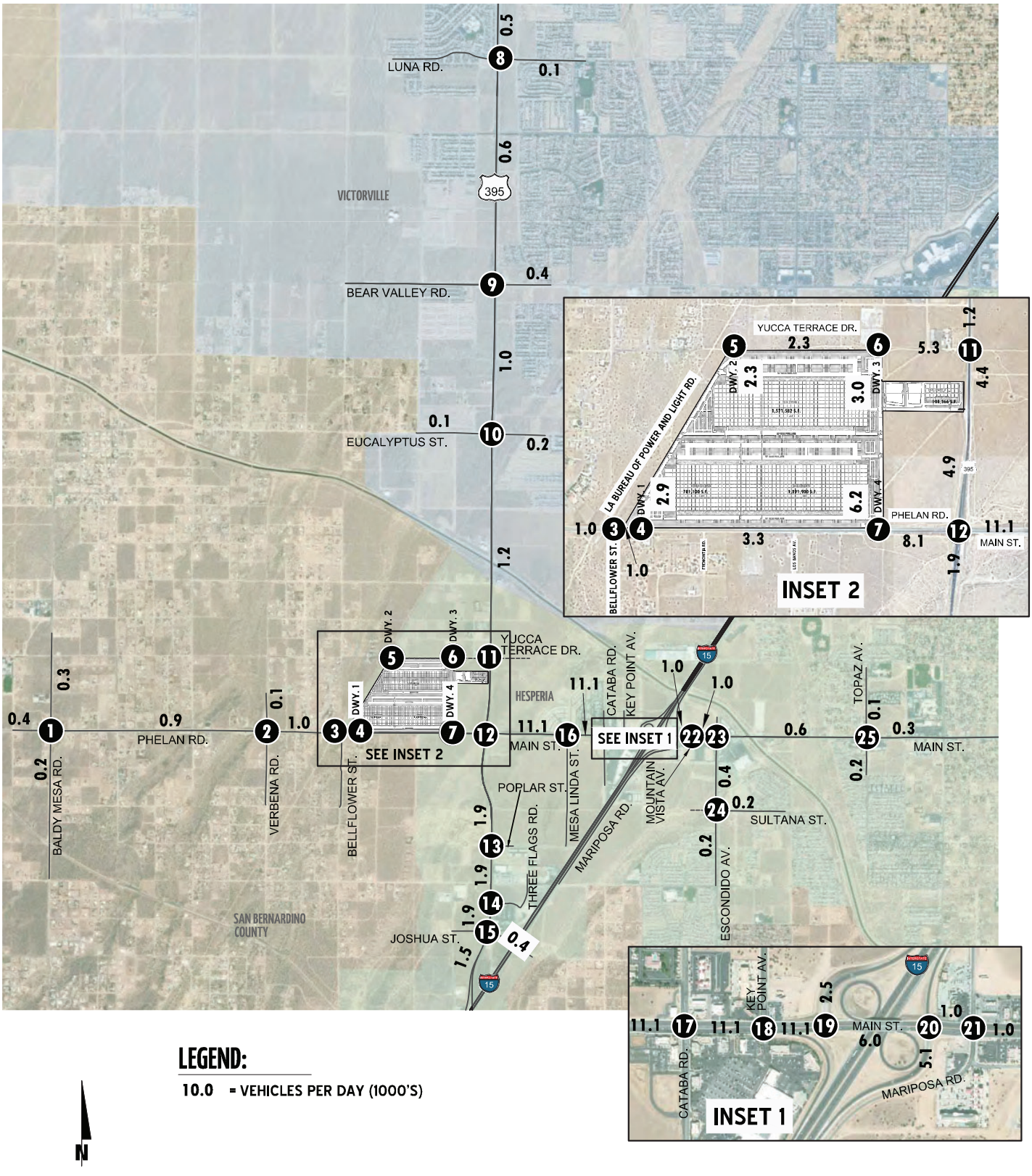

SOURCE: Urban Crossroads 2020

FIGURE 4.10-11

Project-Only Average Daily Taffic (in PCE)

Hesperia Commerce Center II

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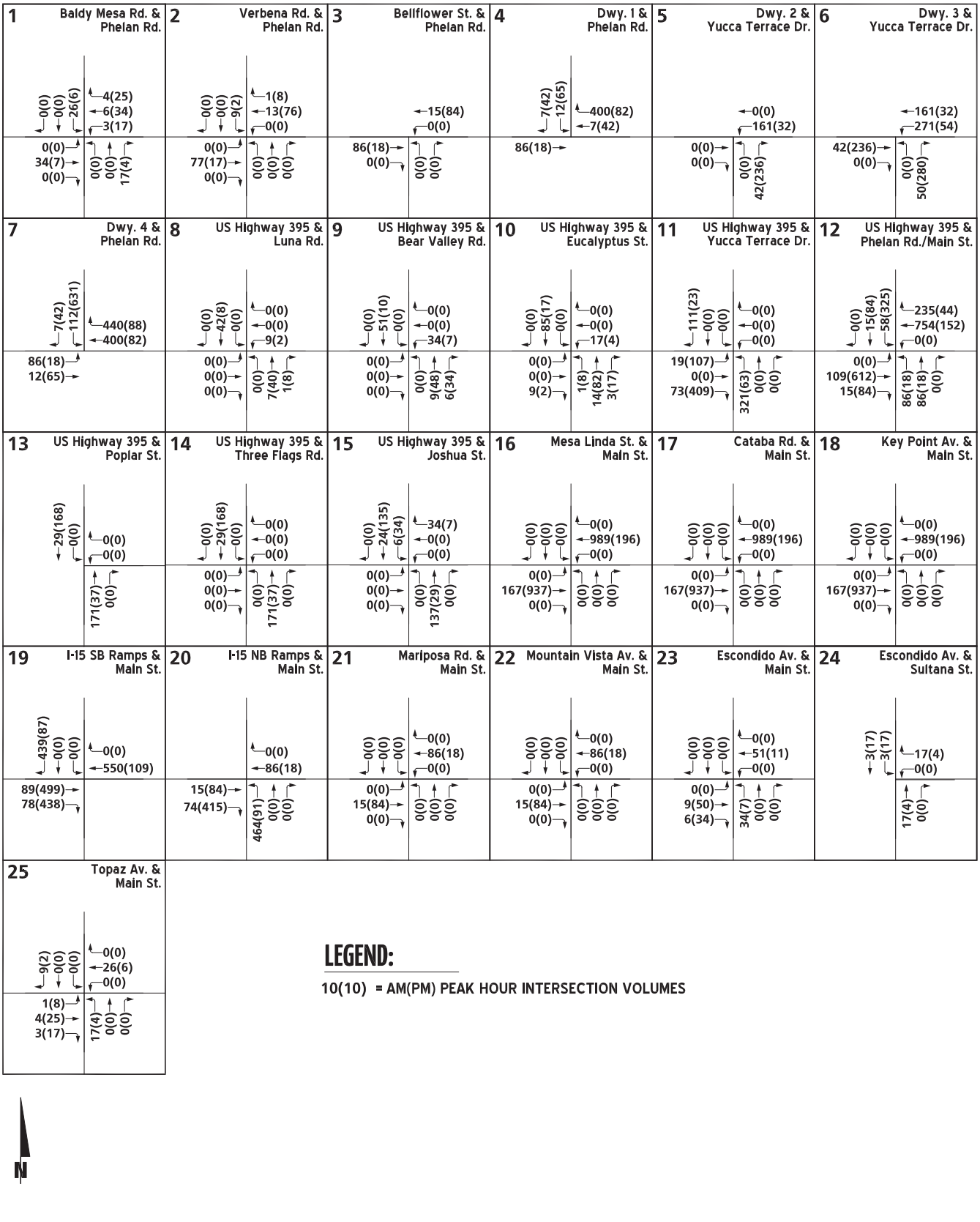

SOURCE: Urban Crossroads 2020

FIGURE 4.10-12

Project-Only Traffic Volumes (in PCE)

Hesperia Commerce Center II

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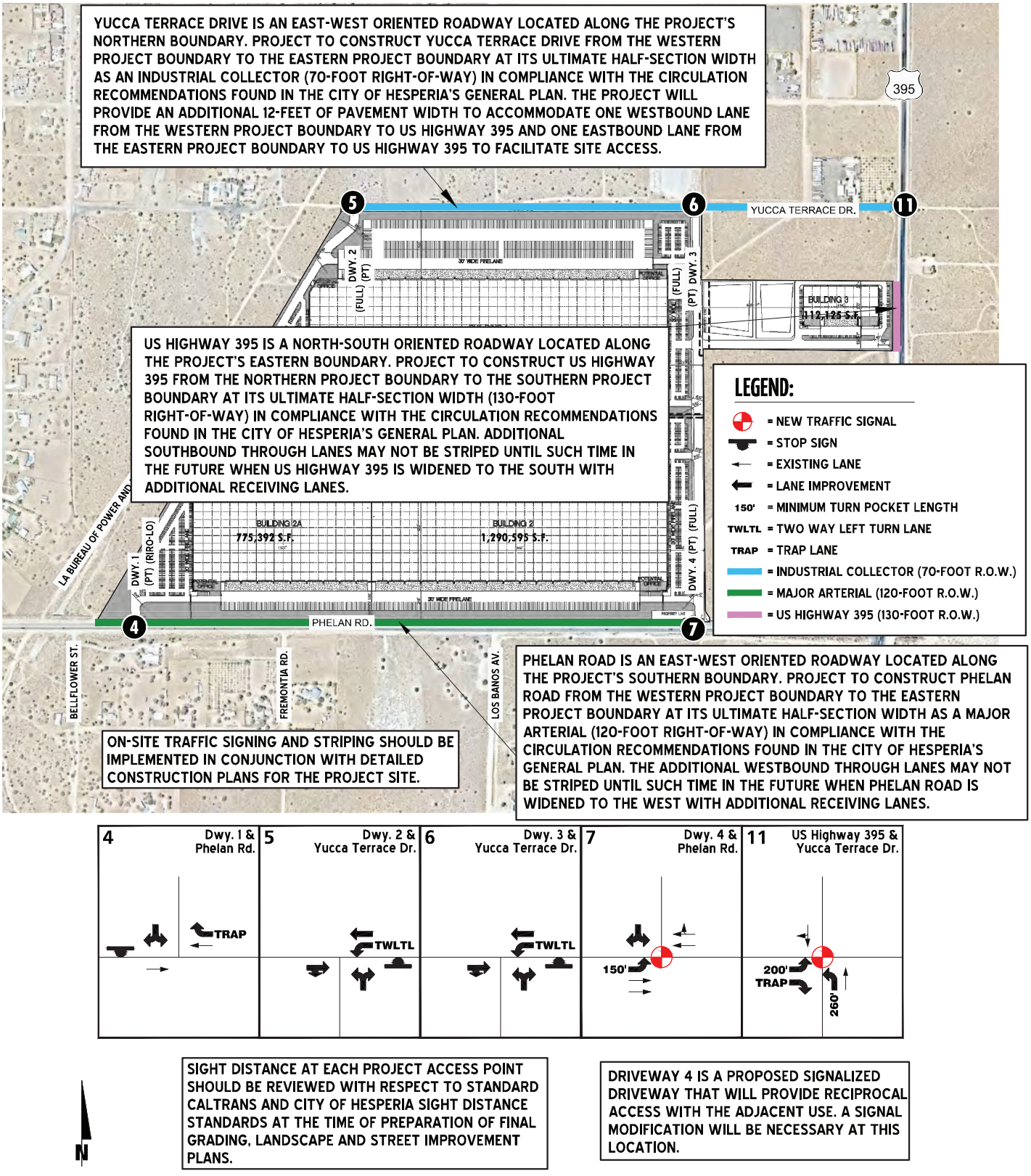

SOURCE: Urban Crossroads 2020

FIGURE 4.10-13

Site Adjacent Roadway and Site Access Recommendations

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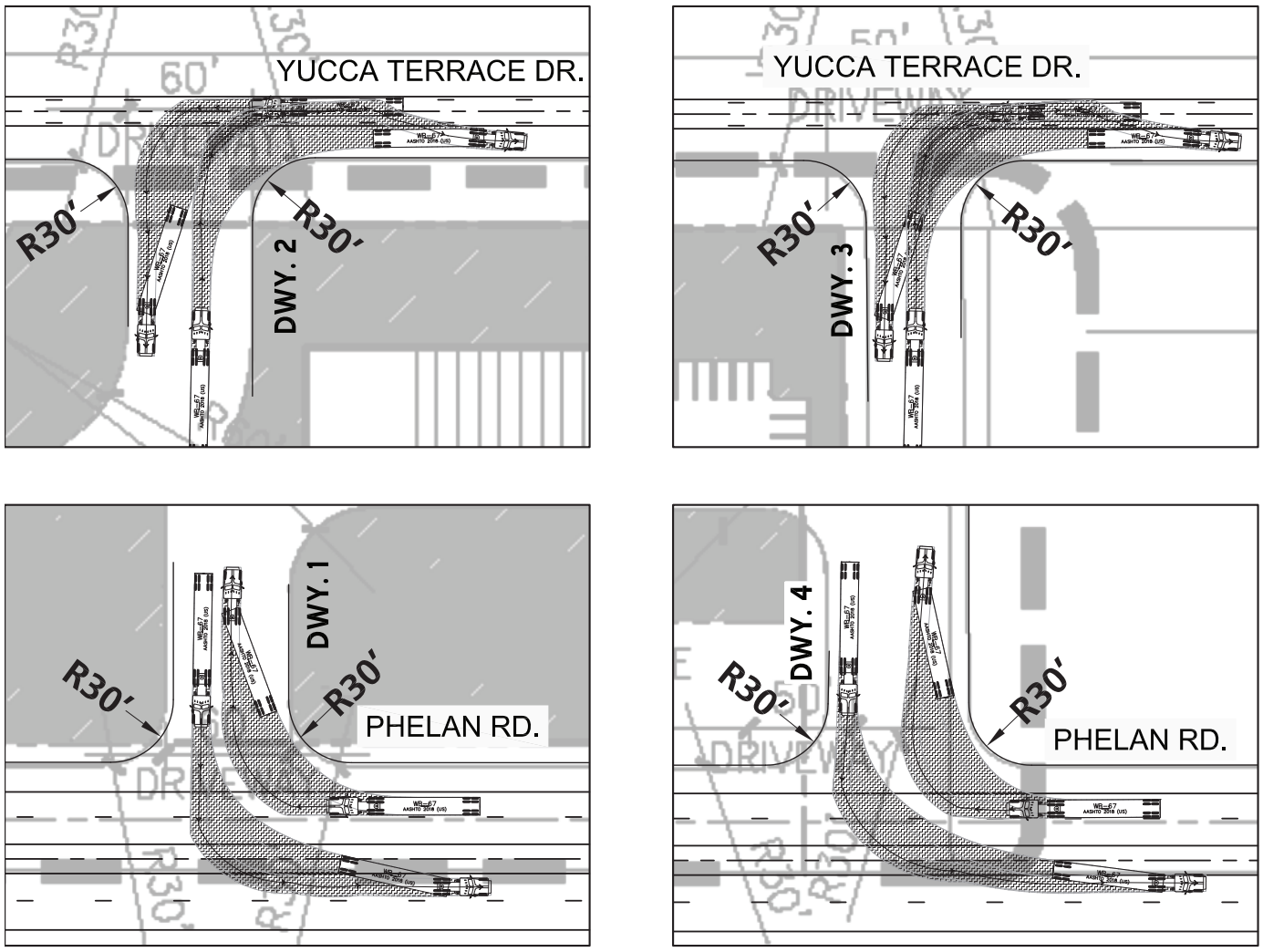

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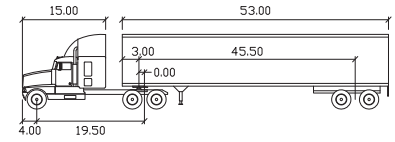

WB-67

feet

Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 75.0
Trailer Track	: 8.50		

GRAPHIC SCALE

0 40 80

1"=80'

N

SOURCE: Urban Crossroads 2020

FIGURE 4.10-14

Truck Access

Hesperia Commerce Center II

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4.11 Utilities and Service Systems

This section describes the existing utility conditions of the Hesperia Commerce Center II Project (Project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to the implementation of the Project.

In addition to the documents incorporated by reference (see Section 2.7 of Chapter 2 of this Environmental Impact Report [EIR]), the following analysis is based, in part, on the following sources:

- *Water Supply Assessment* prepared by KEC Engineers Inc. in June 2020 (Appendix L)
- *Hesperia Commerce II Industrial Buildings City of Hesperia, CA Preliminary Drainage Report* prepared by WestLAND Group Inc. in November 2019 (Appendix I-1)
- *Mojave River Watershed Preliminary Water Quality Management Plan for: Hesperia Commerce II* prepared by WestLAND Group Inc. in November 2019 (Appendix I-2)

4.11.1 Existing Conditions

Water

Water Supply

The City's water system is managed by the Hesperia Water District, which is a subsidiary special district of the City. The Hesperia Water District provides utility service for the water and sewer system within the City and operates as a self-sustaining utility business enterprise. With minor exceptions, the Hesperia Water District's service area matches the City's boundaries and covers approximately 74 square miles.

Hesperia Water District estimates that it currently (i.e., in 2020) receives approximately 88.0% of its water from groundwater, 5.5% from purchased water, and 6.5% from recycled water (Hesperia Water District 2016). Regarding the portion of the District's water supply that originates as groundwater, the District receives water from sixteen active wells within the City, the entirety of which is located within Alto Subarea sub basin of the Mojave River Groundwater Basin. The Mojave Water Agency serves as the entity responsible for managing the use, replenishment, and protection of the groundwater basin. The Mojave River Ground Water Basin is adjudicated basin and thus has a managed groundwater extraction rate, reducing the potential for over-extraction to occur (Hesperia Water District 2016). The Upper Mojave River Ground Water Basin is also classified by the California Department of Water Resources as having a very low priority in regards to prioritizing the completion of a Groundwater Sustainability Plan (GSP) (CDWR 2019) (see Section 4.11.2, Relevant Plans, Policies, and Ordinances, for additional detail).

In addition to relying on groundwater, the Hesperia Water District purchases imported State Water Project water. However, the Hesperia Water District does not directly resell State Water Project water to retail customers. Rather, the Hesperia Water District partners with the Mojave Water Agency and other retail water purveyors to use imported State Water Project water to replenish the Upper Mojave Water Basin as part of the Regional Recharge and Recovery Project (also referred to as the "R3" project) which is managed by the Mojave Water Agency. Hesperia Water District can then purchase the rights to recover banked water and distribute it as a potable supply. This practice further assists regional water providers in sustainable management of the Mojave Groundwater Basin.

Lastly, the Hesperia Water District also receives recycled water from the Hesperia Subregional Water Recycling Facility in Hesperia, which is owned and operated by the Victor Valley Wastewater Reclamation Authority (VVWRA). This facility receives, treats, and recycles a portion of the City's wastewater and distributes recycled water to a select number of customers within the City (City of Hesperia 2019a).

Pursuant to the Urban Water Management Planning Act, Hesperia Water District prepares an Urban Water Management Plan (UWMP) on a five-year basis to evaluate current and projected water supplies and demands amongst other water planning issues. Hesperia Water District's most recent UWMP, prepared in 2015, Hesperia Water District's UWMP includes plans for provision of water (including drought scenarios) for its service area. The plan uses regional population, land use plans, and projections of future growth as the basis of planning for future water supply and demonstrating compliance with state water conservation goals and policies. Hesperia Water District comprehensively updates its UWMP on a 5-year basis to refine population projections and include all new land use patterns and development.

According to the Hesperia Water District UWMP, Hesperia Water District has the supply needed to meet current and projected water demands through 2035 during normal-, historic single-dry-, and historic multiple-dry-year periods, as shown in Table 4.11-1, which presents the supplies and demands for the various drought scenarios for the projected planning period of 2020-2035 in five-year increments. Demands are shown with the effects of assumed urban demand reduction (conservation) measures that would be implemented during drought conditions.

Table 4.11-1. Supply and Demand Comparison (Acre-Feet per Year)

Supply and Demand		2020	2025	2030	2035
Average Year					
Supply totals		15,078	16,298	17,743	19,297
Demand totals		15,078	16,298	17,743	19,297
Difference		0	0	0	0
Single-Dry Year					
Supply totals		13,571	14,668	15,969	17,367
Demand totals		13,571	14,668	15,969	17,367
Difference		0	0	0	0
Multiple Dry Years Supply and Demand Comparison					
First Year	Supply totals	13,571	14,668	15,969	17,367
	Demand totals	13,571	14,668	15,969	17,367
	Difference	0	0	0	0
Second Year	Supply totals	13,571	14,668	15,969	17,367
	Demand totals	13,571	14,668	15,969	17,367
	Difference	0	0	0	0
Third Year	Supply totals	13,571	14,668	15,969	17,367
	Demand totals	13,571	14,668	15,969	17,367
	Difference	0	0	0	0

Source: Hesperia Water District 2016.

Existing Water Use

The Project consists of vacant, undeveloped land. As such, there is no existing water demand on site.

Water Infrastructure

The City's existing water distribution system includes approximately 550 miles of underground pipelines. In addition, the distribution system includes a number of water reservoirs, referred to as Plants, to store water to help equalize fluctuations between supply and demand, to supply sufficient water for firefighting, and to meet demands during an emergency or an unplanned outage of a major source of supply.

Within the immediate vicinity of the Project site, there are several 6-inch, 8-inch, and 12-inch water pipelines within Phelan Road, U.S. Highway 395, Los Banos Avenue, and Yucca Terrace Road (Figure 3-11, Conceptual Water Plan, in Chapter 3, Project Description). These pipelines receive water from Plant 30 (which is composed of three storage reservoirs), located approximately 3 miles south of the Project site.

Wastewater

Sewer Infrastructure

The City owns, operates, and maintains a wastewater collection system, including approximately 128 miles of gravity sewer pipe, 2,407 manholes, 704 cleanouts, one operational lift station, and one force main. The primary sources of wastewater in the City's system includes sanitary flow from residential, commercial, and industrial sources. As of 2016, approximately 11% of the City of Hesperia's geographical area was served by sewers. The remaining area is either undeveloped or served by on-site septic tanks (Hesperia Water District 2016).

The portion of the City's wastewater that is not treated by on-site septic tanks is conveyed to and treated and recycled at the Hesperia Subregional Water Recycling Facility which is owned and operated by VVWRA. Currently, this facility is capable of treating up to 1.0 mgd of wastewater. The water recycling facility is a "scalping plant", meaning only wastewater is treated here. No solid waste is treated at this site. Solid waste is returned to the sewer line where it continues via VVWRA's 3-mile interceptor to the VVWRA Regional Wastewater Treatment Plant (RWWTP) in Victorville. When measured in 2016, the RWWTP treated on average 12.5 mgd of wastewater and had a maximum treatment capacity of 18.0 mgd. (City of Hesperia 2016, 2019a; Hesperia Water District 2016).

Within the immediate vicinity of the Project site, there are no existing sewer lines. The closest sewer line is an 8-inch gravity sewer line located in Acacia Road, located approximately 0.6 miles to the east of the Project site on the eastern side of U.S. Highway 395 and Oro Grande Wash.

Existing Wastewater Generation

The Project site is undeveloped and vacant. As such, no wastewater is currently generated.

Stormwater Drainage

The Project consists of a 194.8-acre, irregularly shaped site, which consists of vacant, undeveloped land that has been moderately disturbed in the past due to illegal dumping, trespassing, and unpermitted off-road vehicle use.

Surface elevation within the Project site is relatively flat, ranging between 3,522 feet in the northeast corner to 3,602 feet above mean sea level in the southwest. For a majority of the Project site, the local topographic gradient is approximately 2.0% towards the northeast, while the southwest corner is sloping approximately 7.0% to the west (Appendix I-1). Ground surface cover within the Project site is moderately vegetated with native grasses, shrubs, and trees. The predominance of pervious surfaces currently allows for the percolation of water into the underlying soils.

Within the greater Project area, stormwater facilities are managed by the San Bernardino County Flood Control District. Locally, Oro Grande Wash is a regional storm drain facility that is part of the City of Hesperia's Master Plan of Drainage. The wash has an earthen bottom and is routinely maintained by the San Bernardino County Flood Control District. This flood control channel flows for approximately 9 miles to the north and northeast of the Project site, recharging the underlying groundwater basin (Upper Mojave River Valley Basin) before eventually draining into the Mojave River, which in turn terminates in Silver Lake.

While there are no stormwater drainage facilities located on site because the site is undeveloped, stormwater that does not percolate into existing soils is currently conveyed off site. Stormwater that is conveyed off site can be delineated as originating from six drainage areas, Drainage Area A through Drainage Area F (Figure 4.8-3, Existing Drainage Conditions, in Section 4.8, Hydrology and Water Quality). For a majority of the Project site, Drainage Area C through Drainage Area F convey stormwater runoff to the northeast, while Drainage Area B flows to the west, and Drainage Area A flows to the south. Because there are no existing stormwater drainage facilities on site, rain events can produce significant ponding conditions where stormwater from Drainage Areas C through F terminate. Western and southern flows from Drainage Areas A and B currently drain into an unnamed wash directly to the southwest of the Project site.

Solid Waste

The collection, transport, and disposal of solid waste and recyclables from business use and residential use in the City are provided by Advance Disposal Company Inc. (Advance Disposal). After waste is collected, it is delivered to the Advance Disposal Co & Recycling Center, located at 17105 Mesa Street in Hesperia, approximately 6.1 miles to the northeast of the Project site. Currently, 75% or more of solid waste generated by the City is being recycled (Advance Disposal 2019). Any remaining waste is collected and hauled to the Victorville Sanitary Landfill (City of Hesperia 2010). Details on this landfill are provided below (CalRecycle 2019):

> The Victorville Sanitary Landfill is located at 18600 Stoddard Wells Road in Victorville, approximately 13.2 miles to the northeast of the Project site. This landfill is owned and operated by the County of San Bernardino Solid Waste Management Division. The Victorville Landfill has a maximum permitted daily throughput of 3,000 tons, has a maximum capacity of 83,200,000 cubic yards, and has a remaining capacity of 81,510,000 cubic yards. As of 2009, this landfill was expected to remain open for another 27 years.

Construction waste is typically disposed of at inert landfills, which are facilities that accept materials such as soil, concrete, asphalt, and other construction debris. San Bernardino County has two landfills that accept inert waste, the Victorville Sanitary Landfill and the Chino Valley Rock Landfill (County of San Bernardino 2018). The Chino Valley Rock Landfill is located at 13434 Ontario Avenue in Ontario, approximately 31.4 miles to the southwest of the Project site. The Chino Valley Rock Landfill has a maximum daily throughput of 1,500 tons and a maximum capacity of 4,600,500 tons per year (CalRecycle 2019). However, as waste from the City is already disposed of at the Victorville Sanitary Landfill, it is unlikely that Chino Valley Rock Landfill would be used. In addition, the City has a franchise agreement with Advance Disposal, which designates them as the City's exclusive waste hauler, including all construction waste. As a result, no self-hauling or third-party services may be used when transporting construction debris (City of Hesperia 2019b).

Electricity

Electrical power for the City is provided by Southern California Edison (SCE). SCE, a subsidiary of Edison International, serves approximately 180 cities in 11 counties across central and Southern California. According to

the California Public Utilities Commission (CPUC), approximately 84 billion kilowatt-hours of electricity were used in SCE's service area in 2017. Demand forecasts anticipate that approximately 75 billion kilowatt-hours of electricity will be used in SCE's service area in 2020 (CPUC 2018). SCE receives electric power from a variety of sources. According to CPUC's 2018 California Renewables Portfolio Standard Annual Report, 32% of SCE's power came from eligible renewables, such as biomass/waste, geothermal, small hydroelectric, solar, and wind sources (CPUC 2018).

The City is served by a total of three existing substations, with the substation serving the Project site being the Aqueduct Substation, located east of the Project site near the intersection of Muscatel Street and Topaz Street (SCE 2020). The Aqueduct Substation transforms an incoming 220-kilovolt (kV) electrical current into a 115-kV and 12-kV current, which is distributed to the substation's end users via a network of underground and aboveground electrical lines. The Auld Substation has a total generation capacity of 19.44 megawatts (MW), and currently generates 15.54 MW.

California's electricity industry is an organization of traditional utilities, private generating companies, and state agencies, each with a variety of roles and responsibilities to ensure that electrical power is provided to consumers. In order to ensure to ensure projected supply meets demand, SCE tracks planned development and coordinates with the California Independent System Operator. The California Independent Service Operator (ISO) is a nonprofit public benefit corporation and is the impartial operator of the state's wholesale power grid and is charged with maintaining grid reliability, and to direct uninterrupted electrical energy supplies to California's homes and communities. While utilities (such as SCE) still own transmission assets, the ISO routes electrical power along these assets, maximizing the use of the transmission system and its power generation resources. The ISO matches buyers and sellers of electricity to ensure that enough power is available to meet demand. To these ends, every five minutes the ISO forecasts electrical demands, accounts for operating reserves, and assigns the lowest cost power plant unit to meet demands while ensuring adequate system transmission capacities and capabilities.

Part of the ISO's charge is to plan and coordinate grid enhancements to ensure that electrical power is provided to California consumers. To this end, transmission owners (investor-owned utilities such as SCE) file annual transmission expansion/modification plans to accommodate the state's growing electrical needs. The ISO reviews and either approves or denies the proposed additions. In addition, and perhaps most importantly, the ISO works with other areas in the western United States electrical grid to ensure that adequate power supplies are available to the state. In this manner, continuing reliable and affordable electrical power is assured to existing and new consumers throughout the state.

As the Project site is currently undeveloped, there is no electric infrastructure on site. However, 12-kV overhead electrical lines emanating from the Aqueduct Substation are located along Phelan Road, U.S. Highway 395, and Yucca Terrace Drive.

Natural Gas

Natural gas service for the City is provided by the Southern California Gas Company (SoCalGas). The territory serviced by SoCalGas encompasses approximately 20,000 square miles and more than 500 communities. In the California Energy Demand mid-energy demand scenario, natural gas demand is projected to have an annual growth rate of 0.03% in SoCalGas's service territory. As of 2017, approximately 7.2 billion therms were used in SoCalGas's service area per year, or 19.7 million therms per day. At Project build-out (2021), natural gas demand is anticipated to be approximately 7.9 billion therms per year, or 21.6 million therms per day, in SoCalGas's service area (California Gas and Electric Utilities 2016). The total capacity of natural gas available to SoCalGas in 2016 is estimated to have been 3.9 billion cubic feet per day. In 2021, the total capacity available is also estimated to be

3.9 billion cubic feet per day[1] (California Gas and Electric Utilities 2016). This amount is approximately equivalent to 3.98 billion thousand British thermal units (kBTU) per day, 39.8 million therms per day. Over the course of a year, the available capacity would therefore be 14.5 billion therms per year, which is well above the existing and future anticipated natural gas demand in the area serviced by SoCalGas.

As the Project site is currently undeveloped, there are no underground gas pipelines on site. However, an existing natural gas pipeline is located within Phelan Road.

Telecommunications

There are a number of telecommunications service providers in the City including Frontier Communications, Spectrum, and Hughes Net. These companies are private companies that provide connections to their communication systems on an as-needed basis and maintain existing infrastructure in the vicinity of the Project site. Because the end user of the Project has not yet been identified, it is unknown at this time which provider would provide telecommunications services. However, because existing infrastructure is located within the vicinity of the Project site, it is anticipated that telecommunication lines would be extended onto the Project site from their existing locations.

4.11.2 Relevant Plans, Policies, and Ordinances

Federal

National Pollutant Discharge Elimination System Permit Program

The National Pollution Discharge Elimination System (NPDES) permit program was established in the Clean Water Act (CWA) to regulate municipal and industrial discharges to surface waters of the United States. Discharge from any point source is unlawful unless the discharge is in compliance with an NPDES permit. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (Code of Federal Regulations, Title 40, Section 268, Subpart D), contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs that include federal landfill criteria. The federal regulations address the location, operation, design, and closure of landfills, as well as groundwater monitoring requirements.

[1] One cubic foot of natural gas has approximately 1,020 BTUs of natural gas or 1.02 kBTUs of natural gas.

State

California Code of Regulations, Titles 14 and 27

Title 14 (Natural Resources, Division 7) and Title 27 (Environmental Protection, Division 2 [Solid Waste]) of the California Code of Regulations govern the handling and disposal of solid waste and operation of landfills, transfer stations, and recycling facilities.

Assembly Bills 939 and 341: Solid Waste Reduction

The California Integrated Waste Management (CIWM) Act of 1989 (AB 939) was enacted as a result of a national crisis in landfill capacity, as well as a broad acceptance of a desired approach to solid waste management of reducing, reusing, and recycling. AB 939 mandated local jurisdictions to meet waste diversion goals of 25% by 1995 and 50% by 2000 and established an integrated framework for program implementation, solid waste planning, and solid waste facility and landfill compliance. AB 939 requires cities and counties to prepare, adopt, and submit to the California Department of Resources Recycling and Recovery (CalRecycle) a source reduction and recycling element to demonstrate how the jurisdiction will meet the diversion goals. Other elements included encouraging resource conservation and considering the effects of waste management operations. The diversion goals and program requirements are implemented through a disposal-based reporting system by local jurisdictions under CIWM Board (CIWMB) regulatory oversight. Since the adoption of AB 939, landfill capacity is no longer considered a statewide crisis. AB 939 has achieved substantial progress in waste diversion, program implementation, solid waste planning, and protection of public health, safety, and the environment from landfills operations and solid waste facilities.

In 2011, AB 341 was passed, making a legislative declaration that it is the policy goal of the state that not less than 75% of solid waste generated be source reduced, recycled, or composted by the year 2020. AB-341 requires that local agencies adopt strategies that will enable 75% diversion of all solid waste by 2020. This bill requires all commercial businesses and public entities that generate 4 cubic yards or more of waste per week to have a recycling program in place. In addition, multifamily apartments with five or more units are also required to form a recycling program.

Senate Bill 1374: Construction and Demolition Waste Reduction

Senate Bill (SB) 1374 requires that annual reports submitted by local jurisdictions to CIWMB include a summary of the progress made in the diversion of construction and demolition waste materials. In addition, SB 1374 requires the CIWMB to adopt a model ordinance suitable for adoption by any local agency that required 50% to 75% diversion of construction and demolition waste materials from landfills. Local jurisdictions are not required to adopt their own construction and demolition ordinances, nor are they required to adopt CIWMB's model by default.

Assembly Bill 1327: California Solid Waste Reuse and Recycling Access Act of 1991

AB 1327, which was established in 1991, required CalRecycle to develop a model ordinance for the use of recyclable materials in development projects. Local agencies were then required to adopt the model ordinance, or an ordinance of their own, governing adequate areas for collection and loading of recyclable materials in development projects.

Assembly Bill 1826: Mandatory Commercial Organics Recycling

In October 2014, Governor Brown signed AB 1826 Chesbro (Chapter 727, Statutes of 2014), requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste generated per week. (Organic waste is defined as food waste, green waste, landscape, and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste.) This law also requires local jurisdictions across the state to implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. This law phases in the mandatory recycling of commercial organics over time. In particular, the minimum threshold of organic waste generation by businesses decreases over time, which means an increasingly greater proportion of the commercial sector will be required to recycle organic waste.

Senate Bill X7-7

SB X7-7, which became effective on February 3, 2010, is the water conservation component to the Delta legislative package (SB 1, Delta Governance/Delta Plan). The bill implements water use reduction goals established in 2008 to achieve a 20% statewide reduction in urban per capita water use by December 31, 2020. The bill requires each urban retail water supplier to develop urban water use targets to help meet the 20% goal by 2020 and an interim 10% goal by 2015. The bill establishes methods for urban retail water suppliers to determine targets to help achieve water reduction targets. The retail water supplier must select one of the four compliance options. The retail agency may choose to comply with SB X7-7 as an individual or as a region in collaboration with other water suppliers. Under the regional compliance option, the retail water supplier must report the water use target for its individual service area.

Sustainable Groundwater Management Act

On September 16, 2014, Governor Jerry Brown signed into law a three-bill legislative package—AB 1739 (Dickinson), SB 1168 (Pavley), and SB 1319 (Pavley)—collectively known as SGMA. This act requires governments and water agencies of high- and medium-priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. For critically over-drafted basins, sustainability should be achieved by 2040. For the remaining high- and medium-priority basins, 2042 is the deadline. Through SGMA, the CDWR provides ongoing support to local agencies through guidance, financial assistance, and technical assistance. SGMA empowers local agencies to form Groundwater Sustainability Agencies (GSAs) to manage basins sustainably, and requires those GSAs to adopt GSP for crucial groundwater basins in California.

Urban Water Management Plans

Pursuant to the California Urban Water Management Act (California Water Code Sections 10610-10656), urban water purveyors are required to prepare and update a UWMP every 5 years. UWMPs are prepared by California's urban water suppliers to support long-term resource planning and ensure adequate water supplies. Every urban water supplier that either delivers more than 3,000 AFY of water annually or serves more than 3,000 connections are required to assess the reliability of its water sources over a 20-year period under normal-year, dry-year, and multiple-dry-year scenarios in a UWMP. UWMPs must be updated and submitted to the CDWR every five years for review and approval. The Project site is within the area addressed by Hesperia Water District UWMP.

Senate Bill 610 and Senate Bill 221: Water Supply Assessments

SB 610 and SB 221, amended into state law effective January 1, 2002, improve the linkage between certain land-use decisions made by cities and counties and water supply availability. The statutes require detailed information regarding water availability and reliability with respect to certain developments to be included in the administrative record, to serve as the evidentiary basis for an approval action by the City or County on such projects. Under Water Code Section 10912[a], projects subject to the California Environmental Quality Act (CEQA) requiring a water supply assessment (WSA) include: residential development of more than 500 dwelling units; shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space; commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space; hotel, motel or both, having more than 500 rooms; industrial, manufacturing, or processing plants, or industrial parks planned to house more than 1,000 persons, occupying more than 40 acres of land or having more than 650,000 square feet of floor area; mixed-use projects that include one or more of the projects specified; or a project that would demand an amount of water equivalent to or greater than the amount required by a 500 dwelling units. A fundamental source document for compliance with SB 610 is the UWMP. The UWMP can be used by the water supplier to meet the standard for SB 610. SB 221 applies to the Subdivision Map Act, conditioning a tentative map on the applicant to verify that the public water supplier has sufficient water available to serve the proposed development.

Pursuant to the requirements of SB 610, a WSA was prepared for the Project and includes a comprehensive assessment of historical demands and a projection of future demands based on forecasted development of the remaining developable lands within the City's water service area. The WSA is included as Appendix L.

Executive Order B-29-15

In response to the ongoing drought in California, Executive Order (EO) B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25% relative to water use in 2013. The term of the EO extended through February 28, 2016, although many of the directives became permanent water-efficiency standards and requirements. The EO includes specific directives that set strict limits on water usage in the state. In response to EO B-29-15, the CDWR modified and adopted a revised version of the Model Water Efficient Landscape Ordinance that, among other changes, significantly increases the requirements for landscape water use efficiency and broadens its applicability to include new development projects with smaller landscape areas.

Sanitary Sewer General Waste Discharge Requirements

On May 2, 2006, the State Water Resources Control Board (SWRCB) adopted a General Waste Discharge Requirement (Order No. 2006-0003) for all publicly owned sanitary sewer collection systems in California with more than 1.0 mile of sewer pipe. The order provides a consistent statewide approach to reducing sanitary sewer overflows by requiring public sewer system operators to take all feasible steps to control the volume of waste discharged into the system in order to prevent sanitary sewer waste from entering the storm sewer system, and to develop a Sewer System Management Plan. The General Waste Discharge Requirement also requires that storm sewer overflows be reported to the SWRCB using an online reporting system.

California Code of Regulations Title 24, Part 11

In 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code, Part 11 of Title 24, is commonly referred to as CALGreen and establishes minimum mandatory standards as well as voluntary standards pertaining to the planning and design of sustainable

site development, energy efficiency, water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all new construction of residential and non-residential buildings. CALGreen standards are updated periodically. The latest version (CALGreen 2019) became effective on January 1, 2020.

Mandatory CALGreen standards pertaining to water, wastewater, and solid waste include the following (24 CCR Part 11):

- Mandatory reduction in indoor water use through compliance with specified flow rates for plumbing fixtures and fittings.
- Mandatory reduction in outdoor water use through compliance with a local water-efficient landscaping ordinance or the California Department of Water Resources' Model Water Efficient Landscape Ordinance.
- Diversion of 65% of construction and demolition waste from landfills.

Regional

Water Quality Control Plans (Basin Plans)

The Porter-Cologne Act, Section 13000, directs each Regional Water Quality Control Board (RWQCB) to develop a water quality control plan (Basin Plan) for all areas within its region. The Basin Plan is the basis for each RWQCB's regulatory program. The Project site is located within the purview of the Lahontan RWQCB (Region 6), and the Project must comply with applicable elements of the Basin Plan for Region 6. The Basin Plan gives direction on the beneficial uses of state waters, describes the water quality that must be maintained, and provides programs necessary to achieve the standards established in the Basin Plan. Beneficial uses of waters within the Mojave River Watershed are addressed in the Mojave River Basin Plan Amendment of the Lahontan Basin Plan.

Mojave River Watershed Water Quality Management Plan

The 2013 Phase II Small Municipal Separate Storm Sewer System (MS4) Permit, adopted by the SWRCB, and issued statewide, requires all new development covered by this Order to incorporate Low Impact Development (LID) Best Management Practices (BMPs) to the maximum extent practicable. In San Bernardino County, the Phase II MS4 Permit is applicable within the Mojave River Watershed. In addition, the order also requires the development of a standard design and post-development BMP guidance for incorporation of site design/LID, source control, treatment control BMP (where feasible and applicable), and hydromodification mitigation measures to the maximum extent practicable to reduce the discharge of pollutants to receiving waters. The purpose of this technical guidance document for the Water Quality Management Plan (WQMP) is to provide direction to project proponents on the regulatory requirements applicable to a private or public development activity, from project conception to completion. This technical guidance document is intended to serve as a living document, which will be updated as needed to remain applicable beyond the current Phase II MS4 Permit term. Any non-substantive updates to the technical guiding document and WQMP template will be provided in the annual report. Future substantive updates shall be submitted to the Lahontan RWQCB for review and approval, prior to implementation.

Local

City of Hesperia General Plan

The Conservation Element of the City of Hesperia General Plan (City of Hesperia 2010) identifies, establishes, and sets forth goals or policies to promote the sustainability and environmental integrity of natural resources throughout

the City. In addition, the Land Use Element of the General Plan identifies, establishes, and sets forth goals or policies regarding long-term plans for the development of the municipality. Goals or policies related to utilities and service systems in the General Plan includes the following:

Conservation Element

Goal CN-1 Conserve water resources within the Upper Mojave River Groundwater Basin.

- **Policy CN 1.1** Promote the use of desert vegetation with low water usage and drought-tolerant materials in landscaped areas.
- **Policy CN 1.2** Educate residents on water conservation methods with best practices and tips.
- **Policy CN 1.3** Promote reduced use of high nitrate fertilizers, herbicides, pesticides and other chemicals in landscaping areas that can contaminate the quality of the groundwater.
- **Policy CN 1.4** Limit the disturbance of natural water hydrology by minimizing the creation of impervious surface area and continued utilization of underground retention/detention facilities to recharge groundwater.
- **Policy CN 1.5** Work with local agencies and jurisdictions to provide a coordinated effort to ensure a safe and constant water supply for the region.
- **Policy CN 1.6** Encourage the use of low-water consumption fixtures in homes and businesses.
- **Policy CN 1.7** Require new development to use new technology, features, equipment, and other methods to reduce water consumption.

Goal CN-2 Establish building and development standards to maximize the reclamation of water resources.

- **Policy CN 2.1** Minimize impacts to washes that convey drainage by prohibiting development within drainage corridors that are not consistent with the Master Plan of Drainage.
- **Policy CN 2.2** Encourage the use of reclaimed water for irrigation and other non-potable uses.
- **Policy CN 2.3** Protect open space areas used for recharging groundwater basins.
- **Policy CN 2.4** Continue to implement the use of reclaimed water through the City's "purple pipe" ordinances and regulations to further the use of reclaimed and treated water.
- **Policy CN 2.5** Implement the state and local laws and policies to develop retention basins for the replenishment of the underground water supply.
- **Policy CN 2.6** Coordinate City policies and activities with the Victor Valley Wastewater Reclamation Authority.

Goal CN-3 Minimize development and set aside necessary open space near and along the surface waters as well as those washes and other water passageways located in the City to preserve and protect plant and animal species and their natural habitat dependent on such surface waters and waterways.

- **Policy CN 3.1** Monitor the development impacts on these surface water resources within the City.
- **Policy CN 3.2** Preserve areas within the Oro Grand Wash and un-named wash #1 that exhibit ideal native habitat in a natural state.

Goal LU-5 Designate and protect land for public uses to serve the needs of the community for schools, parks, community facilities, open space, utilities, and infrastructure.

Goal LU-6 Promote sustainable development and building practices in all facets of project development through the completion of construction.

Policy LU-6.1 Promote the use of green building standards and Leadership in Energy and Environmental Design (LEED), or other equivalent programs, in both private and public projects.

Policy LU-6.2 Promote sustainable building practices that go beyond the requirements of Title 24 of the California Administrative Code and encourage energy-efficient design elements, consistent with Policy LU-6.1.

Policy LU-6.3 Support sustainable building practices that encourage the use of recycled or other building materials that promote environmental quality, economic vitality, and social benefits. Support construction, and operational practices that limit impacts to the environment.

Policy LU-6.4 Encourage sustainable development that incorporates green building best practices and involves the reuse of previously developed property and/or vacant sites within a built-up area.

Policy LU-6.5 Encourage development that incorporates green building practices to conserve natural resources as part of sustainable development practices.

Policy LU-6.6 Encourage in-fill development on lands located adjacent to existing developed areas and utilities to maximize the efficiency of land use and infrastructure.

Policy LU-6.7 Encourage the development of public facilities in a manner that assures adequate levels of service while remaining compatible with existing and future land uses.

Goal LU-7 Facilitate a self-contained community with a well-designed and maintained community with a full range of densities and uses within the capacity of infrastructure and services.

Policy LU-7.1 Continue to encourage quality design in all new construction to further improve the built environment of the City.

Policy LU-7.2 Promote sustainable building practices that go beyond the requirements of Title 24 of the California Administrative Code and encourage energy-efficient design elements, consistent with Policy LU-6.1.

Policy LU-7.3 Support sustainable building practices that encourage the use of recycled or other building materials that promote environmental quality, economic vitality, and social benefits. Support construction, and operational practices that limit impacts on the environment.

Policy LU-7.4 Encourage sustainable development that incorporates green building best practices and involves the reuse of previously developed property and/or vacant sites within a built-up area.

Policy LU-7.5 Encourage development that incorporates green building practices to conserve natural resources as part of sustainable development practices.

Policy LU-7.6 Encourage in-fill development on lands located adjacent to existing developed areas and utilities to maximize the efficiency of land use and infrastructure.

Policy LU-7.7 Encourage the development of public facilities in a manner that assures adequate levels of service while remaining compatible with existing and future land uses.

Erosion and Sediment Control Plan

For projects that would include soil disturbance during construction, project applicants must submit an Erosion and Sediment Control Plan (ESCP) for approval to the City of Hesperia. The City will not issue a grading or building permits until the ESCP for the project is approved.

The purpose of the ESCP is to:

1. Identify potential pollutant sources that may affect the quality of stormwater runoff and prevent non-stormwater discharges from the construction site.
2. Document the BMPs that will be implemented to prevent, to the maximum extent practicable, construction site pollutants from leaving the site during all phases of construction.
3. Document erosion control, sediment control, and good housekeeping BMPs that shall be implemented year-round as appropriate based on construction activities.

4.11.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to utilities and service systems are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to utilities and service systems would occur if the Project would:

A. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications 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, which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments.
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.
F. Result in cumulatively considerable impacts relating to utilities and service systems.

4.11.4 Impacts Analysis

Threshold A: Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less-than-Significant Impact. As discussed in further detail below, the Project would result in less-than-significant impacts with regard to the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

Water Facilities

The Project would involve the construction of water distribution infrastructure (i.e., pipes, valves, meters, etc.) to provide domestic water, firewater, and irrigation to the Project site. As discussed in Section 4.11.1, Existing Conditions, there are several 6-inch, 8-inch, and 12-inch water pipelines within Phelan Road, U.S. Highway 395, Los Banos Avenue, and Yucca Terrace Road (Figure 3-11, Conceptual Water Plan). As part of the Project, several of the existing water pipelines would be upsized and/or extended around the Project's border. Pipelines to be upsized include the 6-inch water line within Yucca Terrace Drive (upsized to a 12-inch pipeline), the 8-inch water line within U.S. Highway 395 (upsized to a 12-inch pipeline), and the 8-inch water line within Phelan Road (upsized to a 12-inch water line). New pipelines along the Project site's border include a new 12-inch water line within the remaining part of Yucca Terrace Road, as well as along the western Project boundary. Additionally, a new 16-inch-diameter transmission water pipeline would be installed to provide adequate water service for the Project. This new 16-inch-diameter transmission water pipeline would begin at the intersection of U.S. Highway 395 and Sultana Street and would traverse west along Sultana Street crossing the Oro Grande Wash to Los Banos Avenue. From there it would traverse north and connect to a new 12-inch–diameter water main along Phelan Road. Because the new 16-inch-diameter transmission water pipeline would travel across the Oro Grande Wash and traditional trenching pipe installations will not be feasible, this new water pipeline be installed using the jack and bore method. A pit will be constructed at each end of the wash and the pipe would be bored through from one pit to the other without disturbing the ground surface.

The construction of the proposed water improvements described above has the potential to cause environmental effects associated with buildout of the Project as a whole. The aforementioned water pipeline improvements have been considered as part of the Project, and their disturbance footprints and construction techniques, as well as their associated impacts, have been accounted for within this Draft EIR. There are no unique impacts associated with the installation of water infrastructure to serve the Project that have not been discussed and accounted for in this document. Therefore, impacts associated with water facilities would be less than significant.

Water Treatment Facilities

While the Project would result in an incremental increase in demand for water treatment capacity, the Project's water demand would not result in or require new or expanded water treatment facilities beyond those facilities that are already planned as part of Hesperia Water District's 2015 UWMP. A WSA was prepared for the Project to evaluate the Hesperia Water District's projected supplies and demands and is included as Appendix L. As concluded by the WSA (Appendix L):

> This WSA concludes that the total projected water supplies available to Hesperia Water District during normal, single-dry, and multiple-dry water years over the next 20 years will be sufficient to meet the projected water demands for the proposed project.

Additionally, the WSA evaluated the capacity of the existing water storage systems that serve the Project, including Tank 30, in accordance with the City's Storage Criteria. As concluded in the WSA, the existing water storage systems have sufficient capacity to accommodate the water that would be stored to serve the Project. As such, implementation of the Project would not result in the need to expand water treatment facilities. Therefore, impacts associated with water treatment facilities would be less than significant.

Wastewater Conveyance Facilities

As previously discussed, there are no existing sewer lines within the vicinity of the Project site. The closest sewer line is an 8-inch gravity sewer line located in Acacia Road, located approximately 0.6 miles to the east of the Project site on the eastern side of U.S. Highway 395 and Oro Grande Wash. As part of the Project, sanitary sewer service would be provided via a new connection with a new 12-inch-diameter sewer line located within an easement held by the City to master-planned sewer facilities in the City (Figure 3-10, Conceptual Sanitary Sewer Plan). The new sewer alignment would exit the Project site in an easterly direction, traversing along Yucca Terrace Drive to the east, crossing under U.S. Highway 395 and continuing approximately 2,200 feet along Yucca Terrace Drive, before turning in a 45° angle to the southeast and extending roughly 1,100 feet across the wash. Within the Oro Grande Wash, the sewer line will be located under the existing grade of the wash and installed via jack-and-bore techniques in order to avoid the jurisdictional limits of the ephemeral watercourse.

The construction of the proposed sewer improvements described above has the potential to cause environmental effects associated with buildout of the Project as a whole. The aforementioned sewer improvements have been considered as part of the Project, and their disturbance footprints and construction techniques, as well as their associated impacts, have been accounted for within this Draft EIR. There are no unique impacts associated with the installation of sewer infrastructure to serve the Project that have not been discussed and accounted for in this document. Therefore, impacts associated with wastewater conveyance facilities would be less than significant.

Wastewater Treatment Facilities

Upon build-out of the Project, the Project's wastewater would be conveyed to the Hesperia Subregional Water Recycling Facility and to the VVWRA RWWTP, which has a treatment capacity of 18.0 mgd and currently produces an average flow of 12.5 mgd, or approximately 70% of its total capacity. According to the wastewater generation rates used in the Project's air quality, greenhouse gas emissions, and energy analyses, the Project would generate approximately 0.02 mgd of wastewater. Projected wastewater from the Project would represent approximately 0.16% of the remaining capacity of the treatment facility. Given the remaining capacity of the VVWRA RWWTP, the VVWRA RWWTP should be able to adequately accommodate the Project's contribution of 0.02 MGD of wastewater. As such, no improvements to any of the City's or VVWRA's facilities would be required to ensure sewer service to the Project site. Therefore, impacts associated with new wastewater treatment facilities would be less than significant.

Stormwater Drainage Facilities

The Project site and a majority of the surrounding area are characterized as a rural, undeveloped, vacant land comprised of pervious surfaces. Ground surface cover within the Project site is moderately vegetated with native grasses, shrubs, and trees. The predominance of pervious surfaces currently allows for the percolation of water into

the underlying soils. Developed land typically has a much lower rate of percolation, increasing the amount of runoff reaching the storm drain infrastructure. However, as discussed in Section 4.8, stormwater infiltration would be utilized as a low impact development (LID) feature as part of the Project.

The Project-specific Preliminary Drainage Report (Appendix I-1) includes an existing and proposed condition hydrologic analysis to determine whether the post-construction runoff would have any impact on the receiving storm drain system. An analysis was completed for the 2-year, 10-year, and 100-year, 24-hour storm event, in accordance with the San Bernardino County Hydrology Manual, to calculate the existing and Project conditions. Based on this analysis, the stormwater system would be designed to retain and infiltrate at a minimum, 90% of the 100-year, 24-hour storm event flows on site, and in a manner that would not result in substantial erosion or flooding on or off site.

The Project-specific Preliminary Water Quality Management Plan (Appendix I-2) indicates that stormwater runoff from the Project site would be conveyed to two on-site aboveground infiltration/retention basins, which would be designed to capture and infiltrate more than the difference between the existing drainage and propose drainage conditions. Flows exceeding the design capacity of the infiltration basins would be permitted to discharge into the nearby Oro Grande Wash by means of a proposed 96-inch storm drain pipe to be located under Yucca Terrace Drive.

The construction of the proposed storm drain improvements described above has the potential to cause environmental effects associated with buildout of the Project as a whole. The storm drain improvements have been considered as part of the Project, and their disturbance footprints and construction techniques, as well as their associated impacts, have been accounted for within this Draft EIR. There are no unique impacts associated with the installation of storm drain improvements to serve the Project that have not been discussed and accounted for in this document. Therefore, impacts associated with stormwater drainage facilities would be less than significant.

Electric Power, Natural Gas, and Telecommunications

Upgrades would be required with respect to electric power, natural gas, and telecommunication facilities (i.e., cable television services), based on the change in land use (i.e., greater intensification). These utilities would be part of a dry utility package that would be installed on site and in the adjacent public roadways to provide service to the Project. Upgrades would be confined to the connections to the Project site and not any off-site centralized facilities. The existing infrastructure is located directly adjacent to the Project site within the public streets. Connection to these existing utilities would require limited construction, which would be temporary and limited to trenching, to the depth of the underground lines. Project construction would occur in accordance with all applicable regulatory requirements. Therefore, impacts associated with electric, natural gas, and telecommunication lateral connections would be less than significant.

Threshold B: Would the Project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Less-than-Significant Impact. Implementation of the Project would result in the construction of three industrial/warehouse buildings and with associated office spaces, surface parking, and loading areas on an approximately 195-acre site. Table 4.11-2 summarizes the estimated water demand for the Project.

Table 4.11-2. Estimated Proposed Water Demand

Land Use	Units	Average Consumption Rate (gpd/unit)	Total Avg. (gpd)
General Industrial	195 acres	866 gallons per day per acre	168,870
		Total Proposed Water Demand	**168,870**

Source: Appendix L.
Notes: gpd = gallons per day;

The Hesperia Commerce Center II development is estimated to result in an increase in potable water demand of 168,870 gallons per day (gpd), which is equivalent to approximately 189 acre-feet per year (AFY). As there is currently no existing water demand for the Project site, the net increase in water demand would be equivalent to the Project's proposed water demand of 189 AFY.

The 2015 Hesperia Water District UWMP has planned for growth within its service area over the next 20 years. Hesperia Water District has made an allowance for future demand estimates. Future demand services are based on historical growth rates in the service area. According to Table 7-2 in the Hesperia Water District 2015 UWMP, Hesperia Water District projects a water demand increase of 4,219 AFY from 2020 (15,078 AFY) to 2035 (19,297 AFY). The net water demand of the Hesperia Commerce II development would be accounted for within this growth, as the Project is consistent with the underlying City land use designations for the Project site.

As long-term water supply is a significant concern in California, Hesperia Water District, in cooperation with VVWRA, plans to increase water supply reliability throughout its service region by expanding the Hesperia Subregional Water Recycling Facility's water treatment capacity from 1.0 mgd to 2.0 mgd by 2030 as well as build a second water recycling facility within the City that would be able to treat 2.6 mgd of wastewater by 2040. The City additionally plans to construct multiple recharge basins in cooperation with Mojave Water Agency to deliver and recharge State Water Project water into underlying groundwater basins within the Hesperia Water District's service area (Hesperia Water District 2016). Collectively, these additional measures would enable water supply to meet or exceed water demand for Hesperia Water District for now and into the future. The UWMP and WSA (Appendix L) identities a sufficient and reliable water supply for Hesperia Water District's service area, including sufficient water supply for the Project. Therefore, impacts associated with water supply would be less than significant.

Threshold C: Would the Project result in a determination by the wastewater treatment provider, which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?

Less-than-Significant Impact. As previously discussed, upon build-out of the Project, the Project's wastewater would be conveyed to the Hesperia Subregional Water Recycling Facility and to the VVWRA RWWTP, which has a treatment capacity of 18.0 mgd and currently produces an average flow of 12.5 mgd, or approximately 70% of its total capacity. According to the wastewater generation rates used in the Project's air quality, greenhouse gas emissions, and energy analyses, the Project would generate approximately 0.02 mgd of wastewater. Projected wastewater from the Project would represent approximately 0.16% of the remaining capacity of the treatment facility. Given the remaining capacity of the VVWRA RWWTP, the VVWRA RWWTP should be able to adequately accommodate the Project's contribution of 0.02 MGD of wastewater. Furthermore, as previously discussed, to accommodate an increase in population growth throughout the region, the Hesperia Water District, in cooperation with the VVWRA, plans to expand the water recycling facility treat 2.0 mgd of wastewater by 2030 as well as build a second water recycling facility within the City that would be able to treat 2.6 mgd of wastewater by 2040.

In addition, Districts are empowered by the California Health and Safety Code to charge a fee for the privilege of connecting (directly or indirectly) to the Districts' Sewerage System for increasing the strength or quantity of wastewater discharged from connected facilities. This connection fee is a capital facilities fee that is imposed in an amount sufficient to construct an incremental expansion of the wastewater treatment system to accommodate the Project. Therefore, impacts associated with wastewater treatment capacity would be less than significant.

Threshold D: Would the Project 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?

Less-than-Significant Impact. Construction and operation of the Project would result in less-than-significant impacts with regard to the generation of 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.

Short-Term Construction Impacts

Construction of the Project would result in the generation of solid waste such as scrap lumber, concrete, residual wastes, packing materials, plastics, and soils. Per CALGreen, at least 65% of construction and demolition waste must be diverted from landfills. The City also has construction and demolition debris diversion requirements; however, the CALGreen standards require an equivalent level of diversion (65% diversion). Any hazardous wastes that are generated during construction activities would be managed and disposed of in compliance with all applicable federal, state, and local laws. The remaining 35% of construction material that is not required to be recycled would either be disposed of or voluntarily recycled at a solid waste facility with available capacity. As previously described, there are two existing landfills within San Bernardino County that accept inert waste, the Victorville Sanitary Landfill and the Chino Valley Rock Landfill. However, as waste from the City is already transported to the Victorville Sanitary Landfill, it is assumed that waste would continue to be transported there. As of 2009, this landfill had an expected remaining capacity of 81,510,000 cubic yards and was expected to remain open for another 27 years.

The City has a franchise agreement with Advance Disposal, which designates them as the City's exclusive waste hauler. Therefore, it is not an option to self-haul or use other companies to transport construction debris. However, the City currently recycles 75% or more of all solid waste produced in the City, exceeding the minimum requirement of 65% per CALGreen requirements. As such, any construction requiring disposal at an inert waste landfill would be sufficiently accommodated by existing landfills.

For the reasons stated above, Project construction would not 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.g., CALGreen standards). Therefore, short-term construction impacts associated with solid waste disposal would be less than significant.

Long-Term Operational Impacts

Once operational, the Project would produce solid waste on a regular basis, in association with operation and maintenance activities. Anticipated solid waste generation attributable to the Project is shown in Table 4.11-3. The solid waste generation rates assume compliance with the California Code of Regulations Title 24, Part 11.

Table 4.11-3. Anticipated Solid Waste Generation

Project Components	Size Metric	Units of Size Metric	Rate	Solid Waste Generation (tons per year)
Unrefrigerated Warehouse – No Rail	1,000 square feet	3,745.429	0.94 tons per 1,000 square feet per year	3,520.70
			Total	3,520.70

Source: CAPCOA 2017.

As previously discussed, the City has a franchise agreement with Advance Disposal, which designates them as the City's exclusive waste hauler. Advance Disposal owns and operates the Advance Disposal Co & Recycling Center, which recycles 75% or more of the municipal's waste prior to being transferred to the Victorville Sanitary Landfill. This landfill has a maximum daily permitted throughput of 3,000 tons per day. Assuming solid waste is collected weekly, the net solid waste that is anticipated to be produced by the Project would equate to approximately 2.25% of the available capacity of the Victorville Landfill through its estimated closure date.

Prior to Victorville Sanitary Landfill reaching capacity, additional landfills and strategies would be identified so that disposal needs continue to be met. Landfills within San Bernardino County that exceed the expected lifespan of the Victorville Landfill include the Barstow Sanitary Landfill, which is expected to remain open another 51 years, and the Landers Landfill, which is expected to remain to open another 52 years (CalRecycle 2019). Additional strategies to accommodate solid waste generated by the Project during its lifespan include the expansion of existing landfills, the construction of new landfills, and the selection of landfills outside of the County. As such, in the event of closure of the Victorville Sanitary Landfill, other landfills in the region would be able to accommodate solid waste from the Project, and regional planning efforts would ensure continued landfill capacity into the foreseeable future.

For the reasons described above, Project operations would not 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.

Therefore, long-term operational impacts associated with solid waste disposal would be less than significant.

Threshold E: Would the Project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less-than-Significant Impact. As described above, solid waste from commercial uses in the City is brought to the Advance Disposal Co & Recycling Center, where waste is sorted for recyclable materials. From there, the remainder of the waste is taken to the Victorville Sanitary Landfill. This facility is regulated under federal, state, and local laws. Additionally, the City is required to comply with the solid waste reduction and diversion requirements set forth in AB 939, AB 341, AB 132, and AB 1826.

In addition, as previously described, waste diversion and reduction during Project construction and operations would be completed in accordance with CALGreen standards and City diversion standards. As a result, the Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. Therefore, impacts associated with solid waste statutes and regulations would be less than significant.

Threshold F: Would the Project result in cumulatively considerable impacts related to utilities and service systems?

Less-than-Significant Impact. The Project would not result in cumulatively considerable impacts related to utilities and service systems, as discussed below.

Water Supply

The development of the Project would increase land-use intensities in the area, resulting in increased water usage. The Project would be served by Hesperia Water District. As such, the development of the Project would increase the amount of water used in the Hesperia Water District's service area. Hesperia Water District 2015 UWMP estimates the annual water demand for 2020 is projected to be 14,078 acre-feet. This equates to approximately 4.6 billion gallons a year of water or 12.6 mgd. Hesperia Water District UWMP states that Hesperia Water District and other water agencies in Southern California have planned provisions for regional water for the growing population, including drought scenarios for its service area. This plan includes a new water demand forecast prepared for the major categories of demand and uses regional population, demographic projections, the dry climate, historical water use to develop these forecasts. As such, the Project would not be expected to result in increased water usage causing the need for new entitlements, resources, and/or treatment facilities that are not already being planned to accommodate regional growth forecasts.

In addition, the Project-specific WSA (Appendix L) concluded that water demand and supply for water demand and supply projections for Hesperia Water District, including the Project, demonstrate that projected supplies exceed demand through the year 2035. These projections consider land use, water development programs and projects, and water conservation. For example, Hesperia Water District, in coordination with the VVWRA, plans on expanding the Hesperia Subregional Water Recycling Facility water treatment capacity from 1.0 mgd to 2.0 mgd by 2030 as well as build a second water recycling facility within the City that would be able to treat 2.6 mgd of wastewater by 2040. The City additionally plans to construct multiple recharge basins in cooperation with Mojave Water Agency to deliver and recharge State Water Project water into underlying groundwater basins within the Hesperia Water District's service area. Collectively, these additional programs would enable water supply to exceed water demand for Cal Water Dominguez District now and into the future.

Lastly, compliance with the CALGreen Building Code would be required for new development. In addition, CALGreen Building Code standards require a mandatory reduction in outdoor water use, in accordance with the CDWR Model Water Efficient Landscape Ordinance. This would ensure that the Project does not result in wasteful or inefficient use of limited water resources and may, in fact, result in an overall decrease in water use per person.

Due to water planning efforts and water conservation standards, impacts would not be cumulatively considerable.

Wastewater

The Project would increase the amount of wastewater that is being generated in the area. However, as previously described, with the upsizing and installation of the sewer improvements, the wastewater treatment facilities in the Project are would have the capacity to convey and treat municipal flows. Additionally, Hesperia Water District addresses its long-term planning efforts through the development of a long-term capital plan, which serves as a fundamental roadmap of required water, recycled water, and water reclamation facilities needed to support the build out of existing jurisdictional general plans throughout its service area. Hesperia Water District's Capital Plan relies on its Wastewater Master Plan (City of Hesperia 2008a) and Recycled Water Master Plan (City of Hesperia 2008b), which identifies the wastewater and recycled water infrastructure projects that will be necessary to accommodate future build-out in its service area. As cumulative increases

in wastewater treatment demand within the service area require facility upgrades, Hesperia Water District would charge service connection fees. Such fees would ensure that capital improvements are completed sufficiently to accommodate increased wastewater inflows associated with the Project area. As such, due to Hesperia Water District's long-term planning efforts, Hesperia Water District would have adequate capacity to serve the Project and cumulative projects' projected demand in addition to the provider's existing commitments using existing entitlements and infrastructure, and impacts would not be cumulatively considerable.

Solid Waste

Development of the Project would increase land-use intensities in the area, resulting in increased solid waste generation in the service area for the Victorville Sanitary Landfill. However, per CALGreen, 65% of construction and debris waste must be diverted from landfills. Once operational, AB 939 mandates that cities divert from landfills, at a minimum, 50% of the total solid waste generated to recycling facilities. According to Advance Disposal, the exclusive waste hauler of the City of Hesperia, the City currently recycles 75% or more of debris generated within the municipality. In addition, to reduce on-site solid waste generation, the Project would be required to implement waste reduction, diversion, and recycling during both construction and operation. Therefore, through compliance with state and local solid waste diversion requirements, Project impacts would not be cumulatively considerable.

Electric Power, Natural Gas, and Telecommunication

Development of the Project would add to demands for energy and would increase requirements for telecommunication technology infrastructure. As stated in Section 4.11.1, the ISO plans and coordinates grid enhancements to ensure that electrical power is provided to California consumers. To this end, transmission owners (investor-owned utilities such as SCE) file annual transmission expansion/modification plans to accommodate the state's growing electrical needs. The ISO reviews and either approves or denies the proposed additions. In addition, and perhaps most importantly, the ISO works with other areas in the western United States electrical grid to ensure that adequate power supplies are available to the state. In this manner, continuing reliable and affordable electrical power is assured to existing and new consumers throughout the state. Typically, upgrades to utility networks fall under the jurisdiction of CPUC and would be subject to environmental review as electrical projects are proposed. As a result of this process which involves ongoing monitoring and electrical project development, SCE ensures that it can provide adequate electrical service to the Project area.

As part of the Project, natural gas and telecommunication lines would be extended onto the Project site from their existing locations within the vicinity of the Project site, resulting in localized less-than-significant impacts. Given the nature of telecommunication and gas lines (which are not typically subject to the constraints of existing facilities), once telecommunication lines are extended to the Project site, no additional telecommunication or gas line construction is anticipated to be required. Additionally, cumulative development would be subject to review on a case-by-case basis. Should the applicable service provider determine that upgrades or extensions of infrastructure be required, any such upgrades would be included within each project's environmental review. As a result, impacts associated with upgrades of electric, natural gas, and telecommunication facilities would be not be cumulatively considerable.

4.11.5 Mitigation Measures and Level of Significance After Mitigation

Threshold A: Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The Project would result in **less-than-significant impacts** with regard to the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. No mitigation is required.

Threshold B: Would the Project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years?

The Project would result in **less-than-significant impacts** with regard to the availability of sufficient water supplies to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. No mitigation is required.

Threshold C: Would the Project result in a determination by the wastewater treatment provider, which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?

The Project would result in **less-than-significant impacts** with regard to the capability of the Project's future wastewater treatment provider to serve the Project, in addition to the provider's existing commitments. No mitigation is required.

Threshold D: Would the Project 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?

The Project would result in **less-than-significant impacts** with regard to the generation of 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. No mitigation is required.

Threshold E: Would the Project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The Project would result in **less-than-significant impacts** to compliance with federal, state, and local management and reduction statutes and regulations related to solid waste. No mitigation is required.

Threshold F: Would the Project result in cumulatively considerable impacts related to utilities and service systems?

The Project would result in **less-than-significant cumulative impacts** related to utilities and service systems. No mitigation is required.

4.11.6 References Cited

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5 Effects Found Not To Be Significant

Section 15128 of the California Environmental Quality Act (CEQA) guidelines requires that an Environmental Impact Report (EIR) briefly describe potential environmental effects that were determined not to be significant and therefore were not discussed in detail in the EIR. The environmental issues discussed in the following sections are not considered significant for the Hesperia Commerce Center II Project (Project), and the reasons for these less-than-significant impact or no impact determinations are discussed herein.

5.1 Agricultural and Forestry Resources

Conversion of Agricultural Lands and Forestlands

According to the California Department of Conservation (CDOC) Important Farmland Finder (CDOC 2016a), the Project site is designated as "grazing land." The Project site does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (collectively, "Important Farmland"). The Project would not occur within any farmland locations, and would not result in the conversion of this land to nonagricultural use. In addition, based on the CDOC's 2015/2016 San Bernardino County Williamson Act map (CDOC 2016b), there are no Williamson Act contracts on site or within the Project area. Further, the Project site and surrounding area are not zoned for agricultural uses, but instead for commercial, industrial, business park, rural estate residential, and neighborhood commercial uses (City of Hesperia 2010). As such, implementation of the Project would not conflict with existing zoning for agricultural use or land under a Williamson Act contract.

In regard to forestland or timberland, Project site is not located on or adjacent to forestland, timberland, or timberland zoned timberland production (City of Hesperia 2010). Therefore, no impacts associated with Important Farmland, Williamson Act contracts/Farmland Security Zones, forestland, or timberland would occur.

5.2 Geology and Soils

Fault Rupture

According to the CDOC regulatory maps (CDOC 2019), the Project site is not located in a designated earthquake fault zone. The Alquist–Priolo Zones Special Studies Act defines active faults as those that have experienced surface displacement or movement during the last 11,000 years. According to the City's General Plan, although several earthquake faults exist within and in proximity to the City, no faults exist beneath the Project site (City of Hesperia 2010). Although the Project site could potentially be subject to strong ground shaking during an earthquake, because of the absence of an underlying fault in the Project area, there is no potential for faulting on site. Therefore, no impacts associated with fault rupture would occur.

Seismic Ground Shaking

Similar to other areas located in seismically active Southern California, the City is susceptible to strong ground shaking during an earthquake. As previously addressed, the Project site is not located within an active fault zone, and the site would not be affected by ground shaking more than any other area in this seismic region. In addition, the Project would be designed in accordance with all applicable provisions established in the current California Building Code, which sets forth specific engineering requirements to ensure structural integrity during a seismic

event (CBC 2019). Compliance with these requirements would reduce the potential risk to people and structures with respect to strong seismic ground shaking. Therefore, impacts associated with strong seismic ground shaking would be less than significant.

Ground Failure

Liquefaction occurs when partially saturated soil loses its effective stress and enters a liquid state, which can result in the soil's inability to support structures above. Liquefaction can be induced by ground-shaking events and is dependent on soil saturation conditions Due to the existing geologically young, loose, unconsolidated sediments throughout the City, liquefaction has the potential to occur within the City. However, the Project would comply with the most recent version of the California Building Code (CBC), which contains universal standards related to the Project site's specific soil characteristics. Additionally, a geotechnical/soils study has been prepared for the Project, which would provide engineering recommendations based on the particular geological characteristics of the Project site. These site-specific recommendations would include requirements regarding excavation, grading, and imported fill selection; foundation design parameters; and floor slab design and construction parameters. Some of these recommendations would reiterate requirements already set forth in the California Building Code, and other recommendations may exceed these requirements based on the specific geological characteristics of the Project site. Compliance with these requirements would reduce the potential risk to people and structures due to liquefaction. Therefore, impacts associated with liquefaction would be less than significant.

Landslide

According to Exhibit SF-1 of the City's General Plan Safety Element (City of Hesperia 2010), the Project site is not located in an area identified as susceptible to slope instability. The Project site is relatively flat and is not located adjacent to any potentially unstable topographical feature such as a hillside or riverbank. Therefore, no impacts associated with landslides would occur.

Soil Erosion and Topsoil Loss

Short-Term Construction Impacts

Because the Project would result in more than 1 acre or more of ground disturbance, the Project would be subject to the National Pollutant Discharge Elimination System stormwater program, which includes obtaining coverage under the State Water Resources Control Board's General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit. Construction activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground such as stockpiling or excavating. The Construction General Permit requires development and implementation of a stormwater pollution prevention plan (SWPPP). Among the required items that must be included within a SWPPP are Project design features intended to protect against substantial soil erosion as a result of water and wind erosion; these design features are commonly known as best management practices (BMPs). Typical BMPs include maintaining or creating drainages to convey and direct surface runoff from bare areas and installing physical barriers such as berms, silt fencing, wattles, straw bales, and gabions.

Implementation of a Construction General Permit, including preparation of a SWPPP and implementation of BMPs, would reduce stormwater runoff and soil erosion impacts to acceptable levels. Therefore, short-term construction impacts associated with soil erosion would be less than significant.

Long-Term Operational Impacts

Once redeveloped, the Project site would include three warehouse/distribution/logistics buildings, paved surfaces, and other improvements that would stabilize and retain on-site soils. The remaining portions of the Project site containing pervious surfaces would primarily consist of landscape areas. These landscape areas would include a mix of trees, shrubs, plants, and groundcover that would help retain on-site soils while also preventing wind and stormwater erosion. Therefore, long-term operational impacts associated with soil erosion would be less than significant.

Unstable Geologic Unit or Soil

Project activities may occur in geologically unstable areas such as zones of potential liquefaction or collapsible soils. However, the Project would comply with the most recent version of the CBC, which contains universal standards related to the Project site's specific soil characteristics. Compliance with the CBC would ensure the structural integrity in light of seismic-related issues experience at the Project site. Additionally, a geotechnical/soils study has been prepared for the Project, which would provide engineering recommendations based on the particular geological characteristics of the Project site. These site-specific recommendations would include requirements regarding engineering, design, and construction (and possibly operation) of the Project. Some of these recommendations would reiterate requirements already set forth in the California Building Code, and other recommendations may exceed these requirements based on the specific geological characteristics of the Project site. Compliance with these requirements would reduce the potential risk to people and structures due to unstable and expansive soils. Therefore, impacts associated with unstable and expansive soils would be less than significant.

Septic Tanks

The Project would connect directly to the municipal sanitary sewer system and would not require septic tanks or any other alternative wastewater disposal system. Therefore, no impacts associated with the adequacy of soils and septic systems would occur.

5.3 Hazards and Hazardous Materials

Hazardous Materials Use Near Schools

The nearest school to the Project site is San Joaquin Valley College (9331 Mariposa Road), which is located approximately 1.4 miles southeast of the site. As such, the closest school is located well outside of a 0.25-mile radius around the Project site. Therefore, no impacts associated with emitting or handling hazardous materials within 0.25 miles of a school would occur.

Hazardous Materials Site Compiled Pursuant to Government Code Section 65962.5

The Hazardous Waste and Substances Sites list (Cortese List) is a planning document providing information about the location of hazardous materials release sites. California Government Code Section 65962.5 requires the California Environmental Protection Agency to develop, at least annually, an updated Cortese List. The Department of Toxic Substances Control is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies are required to provide additional hazardous materials release information for the Cortese List (CalEPA 2019). A review of Cortese List online data resources does not identify hazardous materials or waste sites on the Project site or immediately surrounding area (DTSC 2019; RWQCB 2019). Therefore, no impact would occur.

Airport-Related Safety Hazards or Excessive Noise

The nearest operational public-use airport to the Project site is the Hesperia Airport, which is located approximately 6.2 miles to the south. The airport is located on the Mesa, west of Antelope Valley wash and south of Ranchero Road. According to the Comprehensive Land Use Plan, the Project site is not located within a runway protection zone or safety zone area, which would have potential safety and noise impacts (San Bernardino County 1991). Therefore, no impacts associated with airport hazards would occur.

Emergency Response and Evacuation Plans

According to the City's Mitigation Plan, the Project would be required to comply with the City's Emergency Operations Plan (City of Hesperia 2017). The City Emergency Operations Plan provides a framework for coordinated response and recovery activities during an emergency (City of Hesperia 2017). In addition, the City's General Plan designates all freeways and arterial roads as emergency evacuation routes. Typically, roadway facilities designated by the City's General Plan Safety Element as major, primary, or secondary highways, as well as other streets with regional access are assumed to serve as evacuation routes in the event of a regional emergency. As roadways capable of supporting high traffic volumes and providing regional access to other highways, freeways, and neighboring jurisdictions, both Main Street and U.S. Highway 395 are expected to serve as emergency evacuation routes in the event of an emergency. The Project does not propose any changes to the geometry of these roadways to the extent that these roadways' ability to serve as emergency evacuation routes would be compromised. As a result, the Project would not significantly affect emergency response or evacuation activities. Therefore, impacts associated with emergency response and evacuation routes would be less than significant.

5.4 Hydrology and Water Quality

Result In Substantial Erosion or Siltation

Refer to the discussion above regarding erosion and loss of topsoil. Implementation of a Construction General Permit, including preparation of a SWPPP and implementation of BMPs, would reduce stormwater runoff and soil erosion impacts to acceptable levels. Additionally, once redeveloped, the Project site would include three warehouse/distribution/logistics buildings, paved surfaces, and other improvements that would stabilize and retain on-site soils. The remaining portions of the Project site containing pervious surfaces would primarily consist of landscape areas. These landscape areas would include a mix of trees, shrubs, plants, and groundcover that would help retain on-site soils while also preventing wind and stormwater erosion. Therefore, long-term operational impacts associated with soil erosion would be less than significant.

Flood Hazard, Tsunami, or Seiche Zones

The Project would not be susceptible to flood hazards, tsunami, or seiche. Seiche is generally associated with oscillation of enclosed bodies of water (e.g., reservoirs, lakes) typically caused by ground shaking associated with a seismic event; however, the Project site is not located near an enclosed body of water. Flooding from tsunami conditions is not expected, since the Project site is located approximately 60 miles from the Pacific Ocean.

In addition, the Federal Emergency Management Agency Flood Map Service Center identifies the Project site as Zone X, which is classified as an area of minimal flood hazard, outside of the Special Flood Hazard Area and higher than the elevation of the 0.2%-annual-chance flood (FEMA 2020). As such, the Project would not risk release of pollutants due to inundation.

5.5 Land Use and Planning

Division of an Existing Community

The physical division of an established community typically refers to the construction of a linear feature (e.g., a major highway or railroad tracks) or removal of a means of access (e.g., a local road or bridge) that would impair mobility within an existing community or between a community and outlying area.

Under the existing condition, the Project site is vacant land and is not used as a connection between established communities. Instead, connectivity within the area surrounding the Project site is facilitated via local roadways. As such, the Project would not impede movement within the Project area, within an established community, or from one established community to another. Therefore, no impacts associated with division of an existing community would occur.

Conflict with Land Use Plans

City of Hesperia Land Use Plans, Policies, and Regulations

General Plan

Pursuant to state law, specific plans establish land use regulations for those areas covered by the Specific Plan. The General Plan designates the Specific Plan to cover all freeway frontages within the City as well as the commercial and industrial areas parallel to the freeway corridor. The goals, policies, and development standards applicable to the Project are found in the Specific Plan.

Main Street and Freeway Corridor Specific Plan

The Specific Plan establishes a framework for the Main Street and freeway corridors and is intended to facilitate and support development and improvements along these corridors. The regulations of the specific plan replace those set forth in the planning and zoning provisions of the City's Development Code, and any other applicable ordinances.

The Project site is zoned and designated by the Specific Plan as CIBP (City of Hesperia 2020). The Project site would be developed in accordance with the provisions set forth in this land use designation. The Specific Plan lists CIBP as one of two industrial zones. The CIBP zone is meant to create consolidated areas for employment-creating uses in a business park setting. The zone is intended to provide for service commercial, light industrial, light manufacturing, and industrial support uses, mainly conducted in enclosed buildings, to minimize environmental impacts such as noise, vibration, air pollution, glare, or waste disposal. The CIBP zone falls within three land use districts, Main Street/I-15 District, U.S. Highway 395/I-15 District, and Industrial District. The Main Street/I-15 and U.S. Highway 395/I-15 Districts provide enhanced vehicular, truck, and rail accessibility by taking advantage of their location along the I-15 corridor with its connection to U.S. Highway 395, and its linkage to the Southern California Logistics Airport. The Project site falls within the Main Street/I-15 District. The Main Street/I-15 District takes advantage of regional freeway accessibility and visibility through high-quality development and streetscape enhancements.

Among the permitted uses in the CIBP zone, warehousing and wholesale distribution centers are permitted at 200,000 square feet or less. Warehouses and wholesale distribution centers over 200,000 square feet are conditionally permitted. The Project would include construction of a total of 3,745,429 square feet of

warehousing use, which would require a Conditional Use Permit. As part of the Project approvals, the Project Applicant is requesting approval of a Conditional Use Permit. Assuming that the City's decision makers approve the Conditional Use Permit, the Project would be an allowable use within the CIBP zone. Additionally, the Project plans would be reviewed by City staff to ensure consistency with all applicable development standards and regulations.

The Specific Plan contains several goals and policies that address land use and planning and are applicable to the Project. An analysis of the Project's consistency with these goals and policies is provided in Table 5-1.

Table 5-1. Specific Plan Consistency Analysis

Specific Plan Goal or Policy	Consistency Summary
Specific Plan Goal: LU-1b: Provide for continuing growth within the Specific Plan area, with land uses and intensities appropriately designated to meet the needs of anticipated growth and to achieve the community's objectives.	**Consistent.** The Project would include construction of three warehouse buildings. The Project site is designated as CIBP and would support the expansion of regional commercial development. Additionally, the Project would support the City's goal of increasing jobs within the City and balancing the job to housing ratio. Therefore, the Project would be consistent with the goal.
Policy LU-1.1: With the adoption of the Main Street and Freeway Corridor Specific Plan, establish land use districts that have complimentary rather than competitive uses/zones, and maintain the integrity of and interrelationships between these zones.	**Consistent.** The Project site would be located in the Specific Plan's Main Street/I-15 District. The Main Street/I-15 District is intended for mixed-use development to enhance large-scale regional commercial and service uses. The Project would be compatible with the Main Street/I-15 District and be consistent with its land use designation of CIBP. Therefore, the Project would be consistent with the goal.
Goal LU-2: Create a jobs/housing balance in the City.	**Consistent.** For purposes of analyses, employment estimates were calculated using average employment density factors reported by SCAG. SCAG reports that for every 1,195 square feet of warehouse space in San Bernardino County, the median number of jobs supported is one employee (SCAG 2001). As such, the estimated number of employees required for operation would be approximately 3,134. According to the City's 2019 SCAG profile, the total number of jobs in the City of Hesperia during 2017 was 22,513 (SCAG 2019). Additionally, in 2018, the total number of housing units in the City was 29,601 (SCAG 2019). As such, jobs generated from the Project would contribute to balancing the jobs/housing ratio. Therefore, the Project would be consistent with the goal.
Policy LU-2.1: Designate land near Interstate-15 and Highway 395 for freeway-oriented commercial and industrial/business park development.	**Consistent.** The Project is located approximately 1.4 miles west of I-15. Additionally, a small section of the Project borders U.S. Highway 395. The Project site and surrounding area to the north and partially to the east and south are designated as CIBP. The Project would include construction of three warehouse buildings. Therefore, the Project is consistent with the policy.

Table 5-1. Specific Plan Consistency Analysis

Specific Plan Goal or Policy	Consistency Summary
Policy LU-2.2: Add to the City's industrial land base where logically and physically possible to do so.	**Consistent.** Under existing conditions, the Project site is vacant, undeveloped land. The Project site is designated as CIBP. As such, the Project would include construction of three warehouse buildings with designated office space and associated improvements. Because of the nature of the Project and the vast size of the Project site, the Project would add to the City's industrial land base, while being physically advantageous. Additionally, the Project site is located adjacent to U.S. Highway 395 and 1.4 miles west of I-15. Therefore, trucks traveling to and from the Project site would have convenient freeway access. Thus, the Project would be consistent with the policy.
Goal LU-6: Make use of vacant sites with the Specific Plan area.	**Consistent.** The Project site is located on vacant land within the Specific Plan area. The Project involves the construction of three industrial distribution warehouses. The Project site has a land use designation of CIBP and would comply with provisions associated with development in a CIBP zone outlined in the Specific Plan.

Source: City of Hesperia 2020.
Notes: I = Interstate; City = City of Hesperia; SCAG = Southern California Association of Governments; CIBP = Commercial/Industrial Business Park.

Regional Transportation Plan/Sustainable Communities Strategy

The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) was adopted on September 3, 2020, and presents the land use and transportation vision for the region through the year 2045, providing a long-term investment framework for addressing the region's challenges. The RTP/SCS establishes goals for the region and identifies transportation investments that address the region's growing population, as well as strategies to reduce traffic congestion and GHG emissions. In addition, the RTP/SCS is supported by a combination of transportation and land use strategies that help the region achieve state GHG emission reduction goals and federal Clean Air Act requirements, preserve open space areas, improve public health and roadway safety, support the region's vital goods movement industry, and utilize resources more efficiently (SCAG 2020).

Consistency with the 2020-2045 RTP/SCS goals, below, demonstrates that the Project would not conflict with the applicable goals in the RTP/SCS adopted for the purpose of avoiding or mitigating an environmental effect. Table 5-2 demonstrates how the Project promotes consistency with the guiding principles and policies of the RTP/SCS.

Table 5-2. Consistency with 2020-2045 RTP/SCS Goals

RTP/SCS Goal	Project Applicable Component (s)	Consistency
Goal 1 Encourage regional economic prosperity and global competitiveness.	The Project would involve construction of three industrial warehouse buildings. Thus, the Project would generate jobs and tax revenue for the City and its residents. Once operational, the Project would add to the City's business tax base and would employ approximately 3,134 workers, helping the City better meet its jobs/housing balance, while also providing	**Consistent**

Table 5-2. Consistency with 2020-2045 RTP/SCS Goals

RTP/SCS Goal	Project Applicable Component (s)	Consistency
	commercial/industrial business park use that will help the City offer a more balanced array of land uses throughout the broader Project area.	
Goal 2 Improve mobility, accessibility, reliability, and travel safety for people and goods.	The Project would include construction and operation of three industrial warehouse buildings that would be easily and efficiently accessible to U.S. Highway 395 and I-15, which would help to facilitate regional goods movement throughout Southern California.	**Consistent**
Goal 3 Enhance the preservation, security, and resilience of the regional transportation system.	A traffic impact analysis (Appendix K-1) has been prepared to determine the Project's potential effect on the regional and local circulation system. Improvements to adjacent roadway facilities would be implemented as part of the Project, as to accommodate for street capacity and effectiveness of the regional circulation system during operation of the Project. Further, the City has created its own local Development Impact Fee (DIF) program to impose and collect fees from new residential, commercial and industrial development for the purpose of funding roadways and intersections necessary to accommodate City growth as identified in the City's General Plan Circulation Element. The City's DIF includes a Regional Circulation System Fee to comply with Measure "I" and a Local Circulation System Fee to address transportation improvements which are locally noteworthy. As such, the Project Applicant will be subject to the City's DIF fee program and will pay the requisite City DIF fees at the rates then in effect.	**Consistent**
Goal 4 Increase person and goods movement and travel choices within the transportation system.	The Project would include construction and operation of three industrial warehouse buildings, which would be easily and efficiently accessible to U.S. Highway 395 and I-15, which would help to facilitate regional goods movement throughout Southern California.	**Consistent**
Goal 5 Reduce greenhouse gas emissions and improve air quality.	The Project would involve development of an industrial use that inherently involves the emission of GHG and air contaminant emissions. However, the Project's contribution would be within acceptable levels used by MDAQMD to assess GHG emission impacts and would incorporate mitigation measures to reduce impacts to air quality. In addition, according to the Southern California Association of Governments Comprehensive Regional Goods Movement Plan and Implementation Strategy, the region will run out of suitably zoned vacant land designated for warehouse facilities in or around 2028. Thus, the Project would meet the growing demand warehousing space, and would do so in an area that is proximate to regional highways (I-15 and U.S. Highway 395), thereby reducing the need for longer distance trips which could result in additional air pollutant and GHG emissions. Additionally, the Project would employ approximately 3,134 workers, helping the City better meet its jobs/housing balance, which should shorten commute distances of City residents who choose to work on the Project site, which would have a direct positive effect on tailpipe GHG and air contaminant emissions.	**Consistent**

Table 5-2. Consistency with 2020-2045 RTP/SCS Goals

RTP/SCS Goal	Project Applicable Component (s)	Consistency
Goal 6 Support healthy and equitable communities.	The Project would involve development of an industrial use that inherently involves the emission of GHG and air contaminant emissions. However, the Project's contribution would be within acceptable levels used by MDAQMD to assess GHG emission impacts and would incorporate mitigation measures to reduce impacts to air quality. In addition, according to the Southern California Association of Governments Comprehensive Regional Goods Movement Plan and Implementation Strategy, the region will run out of suitably zoned vacant land designated for warehouse facilities in or around 2028. Thus, the Project would meet the growing demand warehousing space, and would do so in an area that is proximate to regional highways (I-15 and U.S. Highway 395), thereby reducing the need for longer distance trips which could result in additional air pollutant and GHG emissions. Additionally, development of the Project at the Project site would provide quick and efficient access to Highway 395 and I-15, thereby eliminating the need for truck traffic to take longer routes through residential or commercial/retail areas. The Project would also include a number of components that are designed to reduce energy use, such as incorporating energy efficiency design features in compliance with CALGreen standards.	**Consistent**
Goal 7 Adapt to a changing climate and support an integrated regional development pattern and transportation network.	As climate change continues to increase the number of instances of disruption to local and regional systems, it will become increasingly more urgent for local jurisdictions to employ strategies to reduce their individual contributions. The Project would involve development of an industrial use that inherently involves the emission of GHG and air contaminant emissions. However, the Project's contribution would be within acceptable levels used by MDAQMD to assess GHG emission impacts. In addition, according to the Southern California Association of Governments Comprehensive Regional Goods Movement Plan and Implementation Strategy, the region will run out of suitably zoned vacant land designated for warehouse facilities in or around 2028. Thus, the Project would meet the growing demand warehousing space, and would do so in an area that is proximate to regional highways (I-15 and U.S. Highway 395), thereby reducing the need for longer distance trips which could result in additional GHG emissions.	**Consistent**
Goal 8 Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	Development of the Project at the Project site would provide quick and efficient access to U.S. Highway 395 and I-15, thereby eliminating the need for truck traffic to take longer routes through residential or commercial/retail areas. The Project would also include a number of components that are designed to reduce energy use, such as incorporating energy efficiency design features in compliance with CALGreen standards. In addition, according to the Southern California Association of	**Consistent**

Table 5-2. Consistency with 2020-2045 RTP/SCS Goals

RTP/SCS Goal	Project Applicable Component (s)	Consistency
	Governments Comprehensive Regional Goods Movement Plan and Implementation Strategy, the region will run out of suitably zoned vacant land designated for warehouse facilities in or around 2028. Thus, the Project would meet the growing demand warehousing space, and would do so in an area that is proximate to regional highways (I-15 and US Highway 395), thereby reducing the need for longer distance trips which could result in additional air pollutant and GHG emissions.	
Goal 9 Encourage development of diverse housing types in areas that are supported by multiple transportation options.	The Project site is not zoned for housing, but rather commercial, industrial, and business uses.	**Not Applicable**
Goal 10 Promote conservation of natural and agricultural lands and restoration of habitats.	The Project would be located on an area zoned for commercial, industrial, and business uses. The Project site does not support agriculture. The Project site does support suitable habitat for sensitive plant and wildlife species, and is identified as Joshua Tree Woodland, which is a CDFW community of concern. Mitigation measures have been outlined in this Draft EIR to offset potentially significant impacts to suitable on-site habitat, sensitive plant and wildlife species, and Joshua Tree Woodland.	**Consistent**

As described in Tables 5-1 and 5-2, the Project would be consistent with the applicable goals and policies set forth by the Specific Plan, General Plan, and SCAG in the RTP/SCS and RCP. Therefore, impacts associated with applicable regional land use plans, policies, and regulations of SCAG would be less than significant.

5.6 Mineral Resources

Mineral Resources and Recovery Sites

According to the Conservation Element in the City's General Plan, mineral resources such as sand, gravel, and stone have been identified within the City (City of Hesperia 2010). Additionally, several aggregate resources such as gravelly alluvium and sandy alluvium are known to exist within the City. These resources are primarily located within wash areas and active stream channels. Although the City has known mineral resources, the Project would be located within an area that is not zoned for mineral resource extraction operations, and thus, such activities cannot currently occur on the Project site. Therefore, impacts associated with mineral resources would be less than significant.

5.7 Population and Housing

Inducement Population Growth

The Project would require a temporary construction workforce and a permanent operational workforce, both of which could potentially induce population growth in the Project area. The temporary workforce would be needed to construct the three warehouse buildings and associated improvements. The number of construction workers needed during any given period would largely depend on the specific stage of construction, but would likely range from a dozen to several dozen workers on a daily basis.

Because the future tenants are not known yet, the number of jobs that the Project would generate cannot be precisely determined. Thus, for purposes of analyses, employment estimates were calculated using average employment density factors reported by SCAG. SCAG reports that for every 1,195 square feet of warehouse space in San Bernardino County, the median number of jobs supported is one employee (SCAG 2001). The Project would include 3,745,429 square feet of indusial/warehouses space. As such, the estimated number of employees required for operation would be approximately 3,134.

According to the City's General Plan, as of January 2009, the population of the City was approximately 88,184 residents. Upon build-out, the City anticipates to grow to more than 243,000 residents (City of Hesperia 2010). As such, the Project-related increase of approximately 3,134 employees would represent a nominal percentage of the City's projected future population upon General Plan build-out.[1]

As such, the Project's temporary and permanent employment requirements could likely be met by the City's existing labor force without people needing to relocate into the Project region, and the Project would not stimulate population growth or a population concentration above what is assumed in local and regional land use plans. Therefore, impacts associated with population growth would be less than significant.

Displacement of Existing Housing and People

The Project site is currently vacant and contains no housing or other residential uses. Given that no residential uses are located on site, it follows that the site does not support a residential population. Therefore, no impacts associated with displacement of housing or people would occur.

5.8 Public Services

Fire Protection Facilities

Fire protection and emergency response services for the Project site are provided by the SBCFD. SBCFD operates three fire stations within the City, with Fire Station 305 (8331 Caliente Road) located approximately 1.7 miles south of the Project site, Fire Station 304 (15660 Eucalyptus Street) located approximately 5.2 miles northeast, and Fire Station 302 (17288 Olive Street) located approximately 6.8 miles east (SBCFD 2018).

[1] Note that this represents a conservative approach, as this finding assumes that all future employees will have relocated to the City as a result of the Project from outside of the City, and that no future employees are already residents of the City.

According to the City's General Plan Safety Element, the average response time within the City is approximately 7 minutes, 16 seconds (City of Hesperia 2010). If needed, fire stations from adjacent cities, such as Victorville and Apple Valley may respond to emergency calls in Hesperia. Based on the proximity of the Project site to the existing SBCFD facilities, the average response times in the Project area, the ability for nearby cities to respond to emergency calls, and the fact that the Project site is already located within SBCFD's service area, the Project could be adequately served by the SBCFD without the construction of new, or the expansion of existing, facilities.

In addition, as previously analyzed in response 3.14(a), the Project would not directly or indirectly induce unplanned population growth in the City. Although the Project could potentially result in an incremental increase in calls for service to the Project site compared to existing conditions, this increase is expected to be nominal (as opposed to new residential or commercial/retail land uses, which do result in greater increase in calls for service) and would not result in the need for new fire protection facilities.

Overall, it is anticipated that the Project would be adequately served by existing SBCFD facilities, equipment, and personnel. Therefore, impacts associated with the construction or expansion of FFPD facilities would be less than significant.

Police Protection Facilities

Police protection and emergency response services for the Project site are provided by the San Bernardino County Sheriff's Department (SBCSD). SBCSD operates one station within the City, Hesperia Police Department (15840 Smoke Tree Street), and is located approximately 5 miles east of the Project site. Hesperia Police Department is comprised of approximately 58 law enforcement personnel, including 1 captain, 1 lieutenant, 7 sergeants, 5 detectives, and 44 deputy sheriffs (City of Hesperia 2019).

As previously addressed, the Project would not directly or indirectly induce unplanned population growth in the City. Although the Project could potentially result in a slight incremental increase in calls for service to the Project site compared to existing conditions, this increase is expected to be nominal (as opposed to new residential or commercial/retail land uses, which do result in greater increase in calls for service) and would not result in the need for new police protection facilities.

Overall, it is anticipated that the Project would be adequately served by existing SBCSD facilities, equipment, and personnel. Therefore, impacts associated with the construction or expansion of FPD facilities would be less than significant.

School Facilities

As previously discussed, the Project would not directly or indirectly induce unplanned population growth in the City. Although the Project would require employees to construct and operate the Project, these short-term and long-term employees would likely already reside within the broader Project area. As such, it is not anticipated that many people would relocate to the City as a result of the Project, and an increase in school-age children requiring public education is not expected to occur as a result.

Similar to other development Projects in the City, the Project would be subject to Senate Bill 50, which requires payment of mandatory impact fees to offset any impact to school services or facilities. The provisions of Senate Bill 50 are deemed to provide full and complete mitigation of school facilities impacts, notwithstanding any contrary provisions in CEQA or other state or local laws (Government Code Section 65996). In accordance with

Senate Bill 50, the Project Applicant would pay its fair share of impact fees based on the Project's square footage per Government Code Section 65995(h). These impact fees are required of most residential, commercial, and industrial development Projects in the City. Therefore, impacts associated with construction or expansion of school facilities would be less than significant.

Parks

The Project would construct three industrial/warehouse buildings in the City. The Project does not propose any residential uses, and would not directly or indirectly induce unplanned population growth in the City. As such, the Project would not increase the use of existing neighborhood parks or regional parks in the City and surrounding area. Therefore, impacts associated with construction or expansion of parks would be less than significant.

Other Public Facilities

Given the lack of population growth that would result from the Project, it is unlikely that the Project would increase the use of libraries or other public facilities. Notwithstanding, the Project applicant would be required to pay its fair share of development impact fees to help offset incremental impacts to libraries by helping to fund capital improvements and expenditures. Therefore, impacts associated with libraries and other public facilities would be less than significant.

5.9 Recreation

Existing, Expanded, and New Recreation Facilities

The Project would construct three industrial/warehouse buildings and associated improvements. The Project does not propose any residential uses, and would not directly or indirectly result in a substantial and unplanned increase in population growth within the Project area. As such, the Project would not increase the use of existing neighborhood parks or regional parks in the City and surrounding area. In addition, as an industrial use, the Project does not propose recreational facilities or require the construction or expansion of recreational facilities. Therefore, impacts associated with park and recreational facilities would be less than significant.

5.10 References

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6 Other CEQA Considerations

6.1 Growth-Inducing Impacts

As stated in Section 15126.2(e) of the California Environmental Quality Act (CEQA) Guidelines, an Environmental Impact Report (EIR) is required to include a discussion of a project's growth-inducing effects. The State CEQA Guidelines generally describe such effects as follows: (1) economic growth, population growth, or additional housing in the surrounding environment; (2) removal of obstacles to population growth (e.g., a major expansion of a wastewater treatment facility that allows for more construction in the service area); (3) increases in population that tax existing services requiring construction of new facilities that could cause significant environmental effects; and (4) characteristics of a project that would encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively.

The Hesperia Commerce Center II Project (Project) would require a temporary construction workforce and a permanent operational workforce, both of which could potentially induce population growth in the Project area. The temporary workforce would be needed to construct the three warehouse buildings and associated improvements. The number of construction workers needed during any given period would largely depend on the specific stage of construction, but would likely range from a dozen to several dozen workers on a daily basis.

Because the future tenants are not known yet, the number of jobs that the Project would generate cannot be precisely determined. Thus, for purposes of analyses, employment estimates were calculated using average employment density factors reported by the Southern California Association of Governments (SCAG). SCAG reports that for every 1,195 square feet of warehouse space in San Bernardino County, the median number of jobs supported is one employee (SCAG 2001). The Project would include 3,745,429 square feet of industrial/warehouse space. As such, the estimated number of employees required for operation would be approximately 3,134.

According to the City of Hesperia General Plan, as of January 2009, the population of the City of Hesperia (City) was approximately 88,184 residents. Upon build-out, the City anticipates to grow to more than 243,000 residents (City of Hesperia 2010). As such, the Project-related increase of approximately 3,134 employees would represent a nominal percentage of the City's projected future population upon General Plan build-out. As such, the Project's temporary and permanent employment requirements could likely be met by the City's existing labor force without people needing to relocate into the Project region, and the Project would not stimulate population growth or a population concentration above what is assumed in local and regional land use plans.

Projects that physically remove obstacles to growth, or projects that indirectly induce growth, are those that may provide a catalyst for future unrelated development in the area. The Project would involve installation of new and the upsizing of existing domestic water lines, storm drain lines, and sewer lines in the Project vicinity. The purpose of these new and upsized utilities is solely to serve the needs of the Project, and not to provide capacity for future projects or growth. In addition, since the surrounding Project area is already served by existing wet and dry utilities, the Project would not expand domestic water, sanitary sewer, or stormwater drainage infrastructure into areas not previously served by such utilities.

Further, given that the surrounding Project area is already served by existing wet and dry utilities, it is unlikely that the Project would tax existing community service facilities or require construction or expansion of new regional-scale facilities with capacity to serve more than just the Project. Although street improvements are planned as part of the Project, including roadway widening and beautification within Project-adjacent streets, the Project would not extend an existing roadway facility into an area that is not currently provided vehicular access; thus, the Project would not result in indirect population growth by providing vehicular access to an area presently lacking such access.

Based on the proximity of the Project site to existing facilities, the average response times in the Project area, the ability for nearby cities to respond to emergency calls, and the fact that the Project site is already located within the San Bernardino County Fire Department and San Bernardino County Sheriff's Department service areas, the Project would be adequately served by public services without the construction of new, or the expansion of existing, facilities. Although the Project could potentially result in an incremental increase in calls for service to the Project site compared to existing conditions, this increase is expected to be nominal (as opposed to new residential or commercial/retail land uses, which do result in greater increase in calls for service) and would not result in the need for new or expanded fire or police facilities. Lastly, since the Project would not directly or indirectly induce unplanned population growth in the City, it is not anticipated that many people would relocate to the City as a result of the Project, and an increase in school-age children requiring public education is not expected to occur as a result. Thus, the need for new or expanded school facilities is not required.

In conclusion, the Project could cause population growth through new job opportunities. However, this growth falls well within City and regional growth projections for population and housing. The Project would not remove obstacles to population growth, and would not cause an increase in population such that new community facilities or infrastructure would be required outside of the Project site. Lastly, the Project is not expected to encourage or facilitate other activities that could significantly affect the environment, as explained above. For these reasons, the Project is not considered to be significantly growth inducing.

6.2 Significant Irreversible Changes

The CEQA Guidelines requires that an EIR address any significant irreversible changes that would be caused by implementation of a project. According to CEQA Guidelines Section 15126.2(c), such a change would involve one or more of the scenarios discussed below.

6.2.1 Change in Land Use that Commits Future Generations to Similar Uses

According to the Main Street and Freeway Corridor Specific Plan (Specific Plan), the land use and zoning designations for the Project site are Commercial/Industrial Business Park (CIBP) (City of Hesperia 2010, 2020). As discussed in Chapter 5, Effects Found Not To Be Significant, of this Draft EIR, the Project is consistent with the Project site's land use and zoning designations applied by the City of Hesperia General Plan, Main Street and Freeway Corridor Specific Plan, and the Hesperia Municipal Code. As such, although construction of the Project would develop a total of 3,745,429 square feet of industrial/warehouse space on the Project site, the City already committed the site to industrial/warehouse (and similar) uses when the City designated and zoned the site as Commercial/Industrial Business Park (CIBP).

Land uses surrounding the Project site include scattered residential, commercial, light industrial, and utility uses. Specifically, existing light industrial operations exist just north of the Project site. In addition, existing and approved large-scale industrial facilities are located in the broader Project area within 2 to 3 miles of the Project site. Since the Project site is located near and adjacent to existing urbanized uses, including other industrial uses, the Project would not result in land use changes that would commit future generations to uses that already occur in the Project area. Thus, implementation would not commit future generations to similar uses, given that this proposed use is already found throughout the City.

6.2.2 Irreversible Damage from Environmental Accidents

Potential environmental accidents of concern include those events that would adversely affect the environment or public due to the type or quantity of materials released and the receptors exposed to that release. Construction activities associated with the Project would involve some risk of environmental accidents. However, these activities would be conducted in accordance with all applicable federal, state, and local regulations, and would follow professional industry standards for safety. Once operational, any materials associated with environmental accidents would comply with applicable federal, state, and local regulations. Use of any such materials would not adversely affect the environment or public due to the type or quantity of materials released and the receptors exposed to that release.

6.2.3 Large Commitment of Nonrenewable Resources

Commitment of nonrenewable resources includes issues related to increased energy consumption, loss of agricultural lands, and lost access to mining reserves. There would be an irretrievable commitment of labor, capital, and materials used during construction and operation of the Project. Nonrenewable resources would primarily be committed in the form of fossil fuels such as fuel, oil, natural gas, and gasoline used by equipment associated with construction of the Project. Consumption of other non-renewable or slowly renewable resources would also occur. These resources would include lumber and other forest products, sand and gravel, asphalt, and metals such as steel, copper, and lead.

To ensure that energy implications are considered in project decisions, CEQA requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (Public Resources Code [PRC] Section 21100[b][3]). Energy conservation implies that a project's cost-effectiveness be reviewed not only in dollars, but also in terms of energy requirements. For many projects, cost-effectiveness may be determined more by energy efficiency than by initial dollar costs. A lead agency may consider the extent to which an energy source serving a project has already undergone environmental review that adequately analyzed and mitigated the effects of energy production.

Consistent with PRC Section 21100(b)(3), Appendix G of the CEQA Guidelines, and a ruling set forth by the court in California Clean Energy Committee v. City of Woodland, potentially significant energy implications of a project must be considered in an EIR to the extent relevant and applicable to that project. Accordingly, based on the energy consumption thresholds set forth in both Appendix F and Appendix G of the CEQA Guidelines, the Project's estimated energy demands (both short-term construction and long-term operational demands) were evaluated (see both Section 4.5, Energy, of the this Draft EIR). The overall purpose of the energy analysis was to evaluate whether the Project would result in the wasteful, inefficient, or unnecessary consumption of energy.

As further assessed in the energy analysis, for new development, such as that proposed by the Project, compliance with California Title 24 energy efficiency requirements is considered demonstrable evidence of efficient use of energy. The Project would provide for and promote energy efficiencies beyond those required under other applicable federal and state standards and regulations, and in so doing would meet or exceed all Title 24 standards. On this basis, the Project would not result in the inefficient, wasteful, or unnecessary consumption of energy.

6.3 Significant and Unavoidable Impacts

Pursuant to CEQA Guidelines Section 15126.2(b), an EIR must address any significant environmental impacts, including those that can be mitigated but not reduced to less than significant as a result of implementation of a project. As discussed throughout Chapter 4, Environmental Analysis, of this Draft EIR, at the project and cumulative levels, the Project would result in significant and unavoidable impacts related to air quality, noise, and transportation. For all other environmental issue areas, the Project would result in either less-than-significant impacts or no impact.

6.4 References Cited

City of Hesperia. 2010. *City of Hesperia General Plan*. https://www.cityofhesperia.us/DocumentCenter/View/15728/General-Plan-Update-August-2019.

City of Hesperia. 2020. *Hesperia Main Street and Freeway Corridor Specific Plan*. Effective October 16, 2008; last amended January 24, 2020. https://www.cityofhesperia.us/DocumentCenter/View/15940/MSFCSP-update.

SCAG (Southern California Association of Governments). 2001. *Employment Density Study Summary Report.* October 31, 2001. Accessed September 10, 2019. www.mwcog.org/asset.aspx?id=committee-documents/bl5aX1pa20091008155406.pdf.

7 Alternatives

7.1 Alternatives to the Proposed Project

In accordance with California Environmental Quality Act (CEQA) Section 15126.6, this chapter of the Draft Environmental Impact Report (EIR) contains a comparative evaluation of the Hesperia Commerce Center II Project (Project) with alternatives to the Project, including a No Project Alternative. Consistent with CEQA Section 15126.6, this chapter focuses on alternatives to the Project that are capable of avoiding or substantially reducing any significant adverse impacts associated with the Project, even if the alternatives may impede attainment of Project objectives or prove less cost efficient. In addition, implementation of a Project alternative may potentially result in new impacts that would not have resulted from the Project.

The CEQA Guidelines require that the analysis of alternatives provide sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with a proposed project. Specifically, CEQA Guidelines Section 15126.6(a) outlines the scope of alternatives to a proposed project that must be evaluated:

> An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selection of a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.

Under case law and CEQA Guidelines Section 15126.6(f), the discussion of alternatives is subject to a rule of reason, and need not be exhaustive. CEQA Guidelines Section 15126.6(d) states that "if an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternatives shall be discussed, but in less detail than the significant effects of the project as proposed." Determining factors that may be used to eliminate alternatives from detailed consideration in an EIR are (a) failure to meet most of the basic project objectives, (b) infeasibility, or (c) inability to avoid significant environmental impacts. CEQA Guidelines Section 15364 defines "feasibility" as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."

An EIR need not consider a project alternative whose effects cannot be reasonably ascertained, whose implementation is remote and speculative, or whose execution does not substantially lessen or avoid the significant effects of a proposed project.

As discussed throughout Chapter 4, Environmental Analysis, of this Draft EIR, at the project and cumulative levels, the Project would result in significant and unavoidable air quality, noise, and transportation impacts. For all other environmental issue areas, the Project would result in either less-than-significant impacts or no impact.

7.2 Project Alternatives Considered and Rejected

An EIR is required to identify any alternatives that were considered by the lead agency but were rejected as infeasible. Among the factors described by CEQA Guidelines Section 15126.6 in determining whether to exclude alternatives from detailed consideration in an EIR are failure to meet most of the basic objectives of the project, infeasibility, or inability to avoid significant environmental impacts.

With respect to the feasibility of potential alternatives to a proposed project, CEQA Guidelines Section 15126.6(t)(l) states the following:

> Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries … and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site.

In determining an appropriate range of project alternatives to be evaluated in this Draft EIR, a number of possible alternatives were initially considered and then rejected. Project alternatives were rejected because they could not accomplish the basic objectives of the Project, they would not have resulted in a reduction of significant adverse environmental impacts, or they were considered infeasible to construct or operate.

Alternate Land Uses

Alternative land uses for the Project site, including residential, commercial/retail, and mixed-use, were considered and rejected because these land uses are not consistent with the Project site's General Plan land use designation or the site's zoning of Commercial/Industrial Business Park (CIBP).

According to the Main Street and Freeway Corridor Specific Plan, the purpose of the CIBP zone is to create employment-generating uses in a business park setting. The CIBP zone is intended to provide for service commercial, light industrial, light manufacturing and industrial support uses, mainly conducted in enclosed buildings. Important goals of the development standards for this zone are to ensure a quality appearance from the Interstate 15 freeway corridor and I Avenue, and compatibility with the adjacent commercial, residential, and recreational uses. Permitted and conditionally permitted uses and activities within the CIBP zone include manufacturing, offices warehousing and wholesale distribution centers. Land uses that deviate from industrial-based activities, including residential, standalone retail, and residential mixed-use, are not identified in the Main Street and Freeway Corridor Specific Plan as being suitable within the CIBP zone (City of Hesperia 2020).

As such, without approval of a Specific Plan Amendment, General Plan Amendment, and Zone Change, all of which are discretionary approvals, and none of which are required for the Project, residential, standalone retail, and residential mixed-use land uses could not be developed upon the Project site. In addition, given the proximity of other existing industrial uses in both the immediate and broader Project area, most uses other than industrial, manufacturing, heavier commercial, and similar activities would likely not be compatible with the neighboring industrial operations; thus, the Project site would be an undesirable location for residential, standalone retail, and residential mixed-use land uses.

Alternate Sites

CEQA does not require that an analysis of alternate sites always be included in an EIR. However, if the surrounding circumstances make it reasonable to consider an alternate site, then a project alternative should be considered and analyzed in the EIR. Pursuant to CEQA Guidelines Section 15126.6(f)(2), in making the decision to include or exclude analysis of an alternate site, the "key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR."

As discussed in Chapter 5, Effects Found Not To Be Significant, the Project is consistent with both the Main Street and Freeway Corridor Specific Plan, the General Plan, and Zoning Code. An analysis of alternate sites is typically not necessary when a proposed project is consistent with the applicable land use plans and policies because it can be reasonably assumed that development would ultimately occur in conformance with the applicable land use designation, whether by the currently proposed project or by another development project in the future. In cases where a proposed project is consistent with the applicable General Plan land use designation, the alternatives analysis should typically focus on options for developing the property consistent with adopted plan policies, and the discussion of alternatives should search for an environmentally superior version of a proposed project on the selected site instead of an alternate site.

Few other vacant, available properties of similar size as the project site in the City of Hesperia (City) and San Bernardino County would offer less developmental and environmental constraints, or fewer physical environmental impacts, than the current site. Development of the Project in an alternate location would have similar impacts as would occur with implementation of the Project at its proposed location. Thus, moving the Project to an alternative site – assuming that another approximately 195-acre property exists within the City and is available – would merely displace environmental impacts instead of avoiding or minimizing them.

At this time, the Project applicant does not own or control extraneous land in or around the Project area that could accommodate implementation of the Project. A search of similarly sized, available properties within and near the City of Hesperia failed to find any industrial-zoned, 175- to 215-acre sites that are currently on the market and available to purchase (LoopNet 2020). Other vacant areas located farther north of the Project site are located within the cities of Adelanto and Victorville, outside the jurisdiction of the City of Hesperia. While these areas may serve as alternative sites for the Project, the City has no control over the development or redevelopment of lands outside its jurisdiction. Consequently this Draft EIR does not address these alternative locations.

Further, if the alternate site were to be located farther from major regional transportation routes (e.g., U.S. Highway 395, I-15, and other local truck routes), operational impacts associated with traffic congestion, truck noise, and tailpipe air contaminant emissions would likely be greater than those associated with the Project and disclosed in this Draft EIR, as the vehicles would need to travel farther on local roads to reach regional highway systems.

Moreover, according to the Southern California Association of Governments (SCAG) Comprehensive Regional Goods Movement Plan and Implementation Strategy, the region will run out of suitably zoned vacant land designated for warehouse facilities in or around 2028. At that time, forecasts show that the demand for warehousing space will be more than 1 billion square feet. The Comprehensive Regional Goods Movement Plan and Implementation Strategy also states that unless other land not currently zoned for warehousing becomes available, SCAG forecasts that by 2035, a projected shortfall of space of approximately 227 million square feet will occur (SCAG 2013). Thus, it is likely that selection of an alternate site would merely displace the development activity proposed by the Project to another location, resulting in the same or greater environmental effects, given the regional demand for logistics and warehousing space in the SCAG region.

7.3 Project Alternatives Under Further Consideration

The following provides analysis of the No Project/No Development Alternative (Alternative 1) and the two build alternatives: the No Project/Other Development Project Alternative (Alternative 2) and the Reduced Development Intensity Alternative (Alternative 3).

The evaluation below provides a relative comparison between the Project and each of the three Project alternatives. The analysis considers the issue areas evaluated in Chapter 4, Environment Analysis, and Chapter 5, Effects Found Not To Be Significant, of this Draft EIR. In many cases, the Project and a Project alternative may share the same level of significance (i.e., both scenarios would result in a less-than-significant impact). However, although they might share the same level of significance under CEQA, the actual degree of impact may be slightly different for each scenario, and this relative difference is the basis for a conclusion of greater or lesser impacts compared to the Project.

An environmentally superior alternative is identified among the alternatives evaluated in this Draft EIR. An alternative would be environmentally superior to the Project if it would result in fewer or less significant environmental impacts while achieving most of the Project objectives.

7.3.1 No Project/No Development Alternative (Alternative 1)

Project Alternative 1 Summary

Under Alternative 1, construction of the Project would not occur. The Project site would remain unchanged, and development activities related to construction and operation of the proposed industrial/warehouse buildings, associated office spaces, surface parking and loading areas, and all other proposed on- and off-site improvements would not occur.

In the short term, consistent with the existing conditions, the Project site would continue to be undeveloped. Under Alternative 1, the Project site would remain vacant, undeveloped land, although the site would presumably continue to be subject to illegal dumping, trespassing, and unpermitted off-road vehicle use, similar to the existing conditions.

Project Alternative 1 Impact Analysis

The Project site would remain unchanged and would remain be a vacant, undeveloped, yet disturbed property. On-site conditions would remain similar to existing conditions, and because development activities associated with the Project would not occur, nearly all environmental impacts would be reduced compared with Project conditions. Exceptions would include impacts related to agricultural and forestry resources and mineral resources, which would result in no impact, whether or not the Project is constructed on the Project site.

Impacts associated with hydrology and water quality would likely be greater under Alternative 1 than with the Project, as the new engineered stormwater drainage system would not be constructed on the Project site as proposed under the Project. Under existing conditions, no storm drain or treatment facilities are currently found on-site, and thus, stormwater is not presently collected or treated on the Project site prior to being discharging off-site. This same stormwater drainage scenario would continue to occur under Alternative 1, resulting in greater impacts related to surface drainage, water quality, erosion, and potentially periodic isolated flooding.

In addition, based on observed soil staining associated with on-site full and partially full motor oil canisters and used tire piles, shallow soil impacts may be encountered during Project construction. Under the Project scenario, implementation of mitigation measure MM-HAZ-1 requires the removal and disposal of on-site tires and oil containers (e.g., retail motor oil containers and commercial oil drums) from the Project area in accordance with all applicable local, state, and federal guidelines. Further, for excavation and grading activities that occur in areas with the potential for residual contamination, MM-HAZ-1 requires that a qualified environmental professional shall screen soils in the identified area prior to excavation and grading based on the nature of the potential contamination. In the event that potential contamination is encountered, the contamination shall be evaluated by a qualified environmental professional using the appropriate collection and sampling techniques as determined by the environmental professional based on the nature of the contamination, and the nature and extent of contamination shall be determined and the appropriate handling, disposal, and/or treatment shall be implemented in accordance with applicable regulatory requirements.

However, under Alternative 1, the cleanup activates required pursuit to MM-HAZ-1 would not be initiated, and the existing full and partially full motor oil canisters, used tire piles, and potentially contaminated shallow soils would remain on-site. The Project has previously been a location for illegal dumping activities, and would continue to be so under Alternative 1. The Project would help to remediate the Project site through compliance with MM-HAZ-1, and because this mitigation would not be implemented if not for the Project, Alternative 1 would result in greater impacts related to hazardous materials.

Project Alternative 1 Impact Conclusion

Overall, none of the mitigation measures required for the Project would be necessary with Alternative 1, and this Project alternative would not result in any significant adverse and unavoidable impacts. However, Alternative 1 would not develop a jobs-producing and tax generating land use near transportation corridors within the housing-rich Victor Valley/High Desert region (Objective 1); concentrate non-residential uses near existing roadways, highways, and freeways (Objective 2); develop a fiscally sound and employment generating land use that maximizes utilization of industrial zoned areas (Objective 3); create a project that takes advantage of and enhances existing infrastructure, including the proximity to major regional roadways such as I-15 and U.S. Highway 395, railroad service corridors, and other similar infrastructure (Objective 4); or fulfill the existing and growing demand for logistics and warehouse uses in the region (Objective 5). As such, Alternative 1 would not meet any of the project objectives.

7.3.2 No Project/Other Development Project Alternative (Alternative 2)

Project Alternative 2 Summary

Under Alternative 2, the project site would be redeveloped with other land uses, consistent with the property's CIBP zoning.

The CIBP zone is intended to provide for service commercial, light industrial, light manufacturing and industrial support uses, mainly conducted in enclosed buildings. The Main Street and Freeway Corridor Specific Plan lists several different uses that are either permit by right or conditionally permitted in the CIBP zone. These include commercial storage facilities/mini-warehouses (i.e., self-storage facilities), offices, manufacturing, small and large equipment sales and rental, schools, vehicle rental and sales, minor and major vehicle repair, and vehicle wash facilities.

No zoning variances are being requested as part of the Project, and thus, the Project would be constructed consistent with the design requirements set forth for the CIBP zone in the Main Street and Freeway Corridor Specific Plan. It is assumed that Alternative 2 would involve development of a land use that would be permissible either by right or by a conditional use permit, including the aforementioned land uses listed above. It is also assumed that those uses would share a similar development intensity/floor-area-ration/site coverage as the Project. Land uses that are expressly not allowed in the CIBP zone—specifically residential—would not be considered under Alternative 2.

Moreover, given the Project site's proximity to major regional transportation routes (e.g., U.S. Highway 395, I-15, and other local truck routes), and because of the continued demand for new industrial/warehouse operations in the Project region, it is assumed that the Project constructed under Alternative 2 would consist of warehouse, distribution, logistics, or other similar type industrial (or industrial-supporting) land use of similar size as the Project.

Project Alternative 2 Impact Analysis

It is assumed that Alternative 2 would involve construction and operation of a land use of similar development and operational intensity as the Project, would have a similar floor-area-ratio as the Project, and would be subject to the same federal, state, and local requirements (e.g., incorporation of a new engineered stormwater drainage system, architectural design review) as the Project. Thus, it is expected that environmental impacts associated with Alternative 2 would be similar—if not identical—to those environmental impacts resulting from implementation of the Project.

In addition, the trip generation rate used to analyze the Project's estimated trip generation (refer to the Traffic Impact Analysis prepared for the project [Appendix K-1]) assumed that the Project would support general light industrial and high-cube warehousing uses. These land uses often have lower trip generation rate (either daily or peak hour) than some of the other land uses that are permitted by right or conditional permitted in the CIBP zone, including but not limited to general office, building material and rental, automobile parts and service center, and car wash (higher daily and peak hour trip generation rates).

As such, other land uses that are allowed on the Project site (either by right or by Conditional Use Permit) could potentially result in greater peak hour or daily trip generation compared with the Project, even if the development footprint is similar or identical. Thus, there would be a potential for increased impacts associated with traffic congestion, tailpipe air and greenhouse gas (GHG) emissions, and traffic noise under Alternative 2.

Alternative 2 Impact Conclusion

All of the mitigation measures required for the Project would also apply to Alternative 2, as the land use type, development intensity, and/or site coverage would be similar to the Project, and thus, construction and operation characteristics should also be relatively similar. There is the possibility under Alternative 2, however, that some impacts associated with air quality and GHG, and noise may be greater than those resulting from implementation of the Project, given that some of the other allowed land uses in the CIBP zone have a higher peak hour and/or daily trip generation rate.

As an industrial, commercial, office, institutional, or other permissible land use on the Project site, Alternative 2 would be expected to satisfy many of the Project objectives, including developing a jobs-producing and tax generating land use near transportation corridors within the housing-rich Victor Valley/High Desert region (Objective 1); concentrating non-residential uses near existing roadways, highways, and freeways (Objective 2);

developing a fiscally sound and employment generating land use that maximizes utilization of industrial zoned areas (Objective 3); and creating a project that takes advantage of and enhances existing infrastructure, including the proximity to major regional roadways such as I-15 and U.S. Highway 395, railroad service corridors, and other similar infrastructure (Objective 4). Conversely, Alternative 2 would not meet Objective 5, which is to fulfill the existing and growing demand for logistics and warehouse uses in the region.

7.3.3 Reduced Development Intensity Alternative (Alternative 3)

In accordance with CEQA Section 15126.6, the purpose of conducting a Project alternative comparative analysis is to identify potential alternatives to the Project that are capable of avoiding or substantially reducing any significant adverse impacts associated with the Project, even if the alternatives may impede attainment of project objectives or prove less cost efficient. As a reminder, this Draft EIR has identified the following Project impacts that would be significant and unavoidable.

As discussed in Section 4.2, Air Quality, of this Draft EIR, the Project would exceed the numerical thresholds of significance established by the Mojave Desert Air Quality Management District (MDAQMD) for emissions of volatile organic compounds (VOCs), NO_X, and PM_{10}. Although mitigation measures have been recommended to minimize operational-related air quality impacts (MM-AQ-2), no feasible mitigation measures or project design features beyond those already identified exist that would reduce these emissions to levels that are less than significant. Therefore, even with the incorporation of mitigation, long-term impacts associated with a cumulatively considerable net increase of criteria pollutants for which the Project region is non-attainment would be significant and unavoidable.

Operation of the Project could result in exceedances of the MDAQMD significance thresholds for VOC, NO_x, and PM_{10}, and the Project would potentially result in health effects associated with those pollutants. Because construction of the Project would not exceed any MDAQMD thresholds (after implementation of MM-AQ-2), and operation of the Project would not exceed the MDAQMD thresholds for carbon monoxide (CO), SO_x or $PM_{2.5}$, and because the MDAQMD thresholds are based on levels that the Mojave Desert Air Basin can accommodate without affecting the attainment date for the ambient air quality standards and the ambient air quality standards are established to protect public health and welfare, the Project is not anticipated to result in health effects associated with CO, SO_x or $PM_{2.5}$. However, because operation of the Project could result in exceedances of MDAQMD significance thresholds for VOC, NO_x, and PM_{10}, even after implementation of MM-AQ-2, the potential health effects associated with criteria air pollutants are conservatively considered significant and unavoidable.

In addition, as addressed in Section 4.9, Noise, of this Draft EIR, the maximum noise level increase would below 1 dB, and therefore insignificant, at every studied road segment except Main Street. Along Main Street, the Project would result in a maximum increase of 2.3 decibels (dB) and 2 dB at the Mesa Linda Street and Cataba Road segments, respectively. While overall exterior noise exposure would remain within the City's maximum exterior limits, the increase in traffic noise would be noticeable to residents along these segments. To reduce the potentially significant Project traffic noise level increases on the two study area roadway segments for Existing plus Project, Opening Year Cumulative and Horizon Year Project conditions, potential noise mitigation measures were considered in the Noise Impact Analysis (Appendix J). However, based on the infeasibility of potential mitigation to adequately reduce off-site Project traffic noise levels to less-than-significant levels, off-site Project-related traffic noise level increases at adjacent land uses would remain significant. Therefore, long-term operational impacts associated with Project-related traffic noise increases would be significant and unavoidable.

Further, as outlined in Section 4.10, Transportation, of this Draft EIR, Project vehicle miles traveled (VMT) has been calculated using the most current version of the San Bernardino Transportation Analysis Model (SBTAM). Table 4.10-12 illustrates the comparison between Project generated VMT per service population (SP) to the baseline (2016) regional (San Bernardino County) VMT per SP, which was derived from the SBTAM base year model by SBCTA and their consultant. As shown, the Project would exceed the current threshold of the baseline County of San Bernardino VMT per SP. Based on available research, even with combining multiple Transportation Demand Management strategies applicable to the Project, a maximum 10% reduction in VMT maybe be achieved. Even with 10% reduction in VMT, the Project would exceed the regional threshold of VMT by 8.2%. Therefore, impacts associated with VMT would be significant and unavoidable.

Project Alternative 3 Summary

Presently, the only approach to reducing the Project's operational-related air quality, noise, and VMT impacts would be to reduce the total number of daily trips and employees generated by the Project. As such, in an effort to reduce the Project's significant and unavoidable impacts, the City considered a Reduced Development Intensity Alternative (Alternative 3).

Under Alternative 3, the Project would be constructed and operated as planned on the Project site, with the exception that the size of the proposed development would be reduced by 15%, equating to an industrial/warehouse project consisting of approximately 3,183,615 square feet, compared to the Project's 3,745,429 square feet. Since the building footprint would be reduced by 561,814 square feet (approximately 12.9 acres), this extra space on the Project site would remain vacant. All other on- and off-site improvements proposed as part of the Project are assumed to still be required under Alternative 3.

Alternative 3 Impact Analysis

Under Alternative 3, the Project's development footprint would be reduced by 15% compared to the Project. As a result, it is assumed that a similar reduction in the operational intensity and duration of construction activities would occur. Likewise, a smaller building footprint would be expected to support fewer operational activities than the larger footprints proposed as part of the Project. Thus, the severity of many environmental impacts related to construction and operational phases would be either the same or incrementally reduced under Alternative 3. However, because the development intensity would be reduced substantially under Alternative 3 compared to the Project, certain environmental impacts would differ as a result of this reduction, as the following analysis demonstrates.

Aesthetics

Under Alternative 3, the Project would be constructed and operated as planned on the Project site, with the exception that the size of the proposed development would be reduced by 15%, equating to the 561,814 square feet (approximately 12.9 acres) of extra space on the Project site that would remain vacant.

While the Project has been designed to incorporate design features, materials, and colors to reduce the perceived massing, scale, and overall visual impact of the Project, the additional vacant land that would remain on the Project site under Alternative 3 would retain more of the existing vacant and natural conditions on-site. However, any benefits of this additional vacant land would be offset by the fact that much of the existing Project site is subject to illegal dumping, trespassing, and unpermitted off-road-vehicle use, so the additional vacant land that would remain on the Project site under Alternative 3 would likely be disturbed and not in pristine, natural condition. In addition, leaving 15% of the Project site vacant could equate to the site containing an inconsistent

mix of both improved developed areas and disturbed and undeveloped areas, instead of a the entirety of the Project site containing a cohesive mix of complementary architectural elements and aesthetically pleasing landscape areas. Therefore, aesthetics impacts would be greater under Alternative 3.

Air Quality

Under Alternative 3, the extent of construction activities would be reduced compared to the Project. Thus, construction-related air quality emissions would be lessened. As with the Project, Alternative 3 would require mitigation measures to reduce short-term construction emissions of VOC to a level below significant. With required mitigation, neither construction of Alternative 3 nor construction of the Project would result in a violation of an air quality standard or contribute to a projected air quality violation, although short-term construction emissions would be lessened under Alternative 3 compared to the Project.

Alternative 3 would generate fewer vehicle trips per day due to the reduction in the amount of building space. Accordingly, air pollutant emissions associated with long-term operation of Alternative 3 would be lessened compared to the Project.

However, Alternative 3 would still require implementation of mitigation measures similar to those imposed for the Project. Even with incorporation of mitigation measures, long-term operation of Alternative 3 would still likely result in significant and unavoidable impacts due to emissions of VOC, NOx, and PM_{10}, which would violate the MDAQMD regional air quality standard and would contribute to an existing air quality violation. Because Alternative 3 would generate fewer average daily vehicle trips than would occur under the Project, impacts due to a conflict with the regional air quality standard and the level of contribution to an existing air quality violation would be minimized, but still not eliminated or reduced to less-than-significant levels. As such, Alternative 3 would reduce, but not avoid, the Project's significant and unavoidable impact due to operational air contaminant emissions.

As with the Project, impacts to nearby sensitive receptors would be less than significant under Alternative 3. Similar to the Project, emissions under Alternative 3 would be below the MDAQMD thresholds of significance, and diesel particulate matter emissions would not expose sensitive receptors to significant cancer and non-cancer risks. However, these less-than-significant impacts to sensitive receptors would be reduced under Alternative 3 due to the reduction in daily vehicular trips compared to the Project. Therefore, air quality impacts would be lessened, but not completely avoided, under Alternative 3.

Biological Resources

Under Alternative 3, the project would be constructed and operated as planned on the entire Project site, although the development intensity would be reduced. Compared to the Project, Alternative 3 would develop less of the Project site, resulting in a smaller overall building footprint. However, in accordance with the City's development standards, these areas would not be allowed to be completely unimproved, but instead would still need to be landscaped. As such, any vacant land and potential suitable habitat in these areas would still be disturbed as a result of landscaping activities, reducing any benefits from a biological resources perspective. Therefore, biological resources impacts would be similar under Alternative 3.

Cultural, Tribal Cultural, and Paleontological Resources

Under Alternative 3, the Project would be constructed and operated as planned on the Project site, but with a reduced development intensity. Compared to the Project, Alternative 3 would develop less of the project site with

buildings, parking and loading areas, and other associated improvements, resulting in a smaller overall building footprint on the site that would disturb less land. However, as previously discussed, Alternative 3 would likely not be able to maintain vacant areas on the Project site, but instead would still need to landscape these locations. As such, the entirety of the Project site would need to be disturbed to various extents, which would result in the same potential to disturb presently unknown/unrecorded cultural, tribal cultural, and paleontological resources as the Project. Therefore, cultural resources impacts would be similar under Alternative 3.

Energy

The level of construction activities would be reduced under Alternative 3 compared to the Project. Thus, construction-related energy usage would be lessened. Alternative 3 would also generate fewer vehicle trips per day due and would have a less building space than the Project as proposed, result in less on-site and mobile energy consumption. Accordingly, energy usage associated with long-term operation of Alternative 3 would be lessened compared to the Project. Therefore, energy impacts would be reduced under Alternative 3.

Greenhouse Gas Emissions

Similar to air quality, the extent of construction activities would be reduced under Alternative 3 compared to the Project. Thus, construction-related GHG emissions would be lessened. Alternative 3 would also generate fewer vehicle trips per day due to the reduction in the amount of building space. Accordingly, GHG emissions associated with long-term operation of Alternative 3 would be lessened compared to the Project. Therefore, GHG emissions impacts would be reduced under Alternative 3.

Hazards and Hazardous Materials

Under Alternative 3, the Project would be constructed and operated as planned on the site, with the exception that the development intensity would be reduced. Incorporation of MM-HAZ-1 would still be required under Alternative 3, which mandates, among other requirements, the removal and disposal of on-site tires and oil containers from the Project area in accordance with all applicable guidelines, and that a qualified environmental professional shall screen soils in the identified area prior to excavation and grading based on the nature of the potential contamination. As such, under Alternative 3, the cleanup activates required pursuit to MM-HAZ-1 would be initiated, and the Project would still help to remediate the Project site through compliance with MM-HAZ-1. Therefore, hazards and hazardous materials impacts would be similar under Alternative 3.

Hydrology and Water Quality

Under Alternative 1, the new engineered stormwater drainage system would be constructed on the Project site as proposed under the Project. Under existing conditions, no storm drain or treatment facilities are currently found on-site, and thus, stormwater is not presently collected or treated on the Project site prior to being discharging off-site. However, under Alternative 1, the Project and its on-site stormwater drainage system would be designed to comply with all state, regional, and local regulation related to site stormwater drainage and water quality during both construction and operation of the Project, regardless of the size of the Project. Therefore, hydrology and water quality impacts would be similar under Alternative 3.

Noise

Noise associated with Alternative 3 would occur during short-term construction activities and under long-term operation. The types of construction activities conducted on the Project site would be similar under Alternative 3 would generally cover the same physical area. However, because Alternative 3 would result in construction of less building area on-site, it is anticipated that the duration of noise impacts during the building construction and architectural

coating phase would slightly decrease under Alternative 3 compared to the Project. Nonetheless, the types of construction equipment used and the types of construction activities conducted on-site would be similar under Alternative 3, and the peak daily noise levels generated during the construction phase would also be similar.

Under long-term operational conditions, noise generated by Alternative 3 would primarily be associated with vehicles traveling to and from the site, and on-site vehicle idling, maneuvering, and parking. Alternative 3 would generate fewer daily trips than the Project, and, as such, would contribute less traffic-related noise to local roadways than the Project. However, the increase in traffic noise associated with Alternative 3 would still be noticeable to residents along the roadway segments impacted by the Project, and based on the volume of Project-related traffic under Alternative 3, and because of the infeasibility of avoidance measures to reduce Project traffic noise levels to less-than-significant levels, off-site Project-related traffic noise level increases at adjacent land uses would remain significant. Therefore, noise impacts would be lessened, but not completely avoided, under Alternative 3.

Transportation and Traffic

VMT is largely dependent on the specific land use type of a particular project and the location of that project. While a reduction in a project's size could reduce the overall VMT associated with a give project, reducing a project's square footage would not necessarily have an effect on a project's average trip length. Thus, while under Alternative 3 the Project's development footprint would be reduced by 15% compared to the Project, the average trip length for passenger vehicle and truck trips associated with the Project would essentially remain constant. In addition, because a reduction in Project size would correlate to a similar reduction in on-site workforce, the Project's VMT per employee would also stay relatively the same under Alternative 3 as the Project's VMT per employee. Therefore, transportation impacts would be similar under Alternative 3.

Utilities and Service Systems

Under Alternative 3, the Project would be constructed and operated as planned on the Project site, with the exception that the size of the proposed development would be reduced by 15%. All other on- and off-site improvements proposed as part of the Project are assumed to still be required under Alternative 3. As such, the same wet and dry utilities would be required, with construction and operational characteristics of these on- and off-site improvements being similar to the Project. Therefore, utilities and service systems impacts would be similar under Alternative 3.

Alternative 3 Impact Conclusion

Based on the above, Alternative 3 would result in incremental reductions in both construction activity and daily operational trips on Project area roadways, result in incremental reductions in the severity of impacts related to air quality, energy, GHG emissions, and noise. In the case of air quality and noise impacts, the reductions in Project-related trips would not be substantial enough as to reduce impacts below a significance level that is less then significant. Impacts associated with energy GHG emissions are less-than-significant under both the Project and Alternative 3 scenarios, although emissions would be lessened under Alternative 3.

Impacts associated with agriculture and forestry resources, biological resources, cultural, tribal cultural, and paleontological resources, geology and soils, hazards, hazardous materials, and wildfire, hydrology and water quality, land use and planning, mineral resources, population and housing, public services, recreation, noise, transportation, and utilities and service systems would generally be the same under Alternative 3 compared to the Project.

Lastly, compared with the Project, impacts associated with aesthetics would be incrementally greater under Alternative 3.

All of the same mitigation measures required for the Project would be necessary for Alternative 3, although no new measures would be required. Additionally, Alternative 3 would meet all project objectives, albeit to a lesser extent as proposed under the Project because of the approximately 15% reduction in the Project's size. In particular, because of its reduced size, Alternative 3 would produce fewer jobs (Objective 1), would generate less tax revenue (Objective 1), and would not create as much revenue- and employment generating land use as the Project (Objectives 1 and 3).

7.4 Environmentally Superior Alternative

Section 15126(e)(2) of the State CEQA Guidelines requires an EIR to identify an "environmentally superior alternative." If the No Project/No Development Alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other Project alternatives.

Each of the three Project alternatives considered herein would lessen at least one environmental impact relative to the Project. As previously addressed, if the No Project/No Development Alternative is the environmentally superior alternative—which is the case in this analysis—the EIR must also identify another environmentally superior alternative among the remaining alternatives. Table 7-1 provides a comparison of the Project with the Project alternatives based on the environmental topic areas addressed in Chapter 4, Environmental Impact Analysis, of this Draft EIR. Table 7-2 presents how the Project and each of the Project alternatives compare in terms of meeting the project objectives.

Table 7-1. Project Alternatives Environmental Impacts Comparison

Environmental Issue	Project	No Project/No Development Alternative (Alternative 1)	No Project/Other Development Project Alternative (Alternative 2)	Reduced Development Intensity Alternative (Alternative 3)
Aesthetics	Less Than Significant with the Incorporation of Mitigation	Avoided	Similar	Greater
Air Quality	Significant and Unavoidable	Avoided	Similar	Lessened, but significant and unavoidable impacts still not avoided
Biological Resources	Less Than Significant with the Incorporation of Mitigation	Avoided	Similar	Similar
Cultural, Tribal Cultural, and Paleontological Resources	Less Than Significant with the Incorporation of Mitigation	Avoided	Similar	Similar
Energy	Less Than Significant	Avoided	Similar	Lessened
Greenhouse Gas Emissions	Significant and Unavoidable	Avoided	Similar	Lessened

Table 7-1. Project Alternatives Environmental Impacts Comparison

Environmental Issue	Project	No Project/No Development Alternative (Alternative 1)	No Project/Other Development Project Alternative (Alternative 2)	Reduced Development Intensity Alternative (Alternative 3)
Hazards, Hazardous Materials, and Wildfire	Less Than Significant with the Incorporation of Mitigation	Greater	Similar	Similar
Hydrology and Water Quality	Less Than Significant	Greater	Similar	Similar
Noise	Less Than Significant with the Incorporation of Mitigation	Avoided	Similar	Lessened, but significant and unavoidable impacts still not avoided
Transportation	Significant and Unavoidable	Avoided	Similar	Similar
Utilities and Service Systems	Less Than Significant	Avoided	Similar	Similar

Based on a comparison of Alternative 2 and Alternative 3, environmental impacts associated with air quality, energy, GHG emissions, and noise would be less under Alternative 3 compared to Alternative 2. Impacts associated with biological resources, cultural, tribal cultural, and paleontological resources, hazards and hazardous materials, hydrology and water quality, transportation, and utilities and services systems would be similar under Alternative 3 compared to Alternative 2, and only one impact (aesthetics) would be increased under Alternative 3 compared to Alternative 2. Overall, based on these findings, Alternative 3 would be considered the environmentally superior alternative.

Table 7-2. Comparison of Project Alternatives and Project Objectives

Project Objective	Would the Project or alternative meet the Project Objective?			
	Project	*No Project/No Development Alternative (Alternative 1)*	*No Project/Other Development Project Alternative (Alternative 2)*	*Reduced Intensity Alternative (Alternative 3)*
Objective 1: Develop a jobs-producing and tax generating land use near transportation corridors within the housing-rich Victor Valley/High Desert region that is constructed to high standards of quality and provides diverse economic opportunities for those residing and wishing to invest within the City of Hesperia.	Yes	No	Yes	Yes, albeit to a less degree than the Project
Objective 2: Concentrate non-residential uses near existing roadways, highways, and freeways in an effort to isolate and reduce any potential environmental impacts related to truck traffic congestion, air emissions, and industrial noise to the greatest extent feasible.	Yes	No	Yes	Yes
Objective 3: Develop a fiscally sound and employment generating land use that maximizes utilization of industrial zoned.	Yes	No	Yes	Yes, albeit to a less degree than the Project
Objective 4: Create a project that takes advantage of and enhances existing infrastructure, including the proximity to major regional roadways such as I-15 and U.S. Highway 395, railroad service corridors, and other similar infrastructure that will help promote the site and its use as an industrial business park development.	Yes	No	Yes	Yes, albeit to a less degree than the Project
Objective 5: Fulfill the existing and growing demand for logistics and warehouse uses in the region.	Yes	No	No	Yes, albeit to a less degree than the Project

7.5 References

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