

**Initial Study/Mitigated Negative Declaration
County of San Bernardino Department of Public Works**

**Sunburst Avenue Class I Bike Path and Class II Bike Lanes
Project
Joshua Tree, San Bernardino County, CA**

Lead Agency



County of San Bernardino
Department of Public Works
825 E. Third Street
San Bernardino, CA 92415

Technical assistance provided by:



ECORP Consulting, Inc.
215 North Fifth Street
Redlands, CA 92374

September 2019

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SECTION 1 – INTRODUCTION

The County of San Bernardino is proposing the Sunburst Avenue Class I Bike Path and Class II Bike Lanes Project (Proposed Project). The Proposed Project consists of the design and rehabilitation of an existing Class I bike path and the design and construction of two new Class II bike lanes along Sunburst Avenue from State Route 62 (SR-62) to the new Joshua Tree Elementary School at Calle Los Amigos in the community of Joshua Tree in unincorporated San Bernardino County.

Project Purpose and Need:

The purpose of the Proposed Project is to meet the identified need for a non-vehicular trail for pedestrians and bicyclists to provide for the increased safety of students and the local residents.

SECTION 2 – REGULATORY FRAMEWORK

The County of San Bernardino Department of Public Works has identified that the Sunburst Avenue Class I Bike Path and Class II Bike Lanes Project meets the California Environmental Quality Act (CEQA) Guidelines Section 15378 definition of a Project. CEQA Guidelines Section 15378 defines a Project as the following:

"Project" means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.

In accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Sections 21000-21177), this Initial Study has been prepared to determine potentially significant impacts upon the environment resulting from the construction, operation and maintenance of the Sunburst Avenue Class I Bike Path and Class II Bike Lanes Project (hereinafter referred to as the "Project" or "Proposed Project"). In accordance with Section 15063 of the State *CEQA Guidelines*, this Initial Study is a preliminary analysis prepared by the County of San Bernardino Department of Public Works as Lead Agency to inform the Lead Agency decision makers, other affected agencies, and the public of potential environmental impacts associated with the implementation of the Proposed Project.

Initial Study Organization

This Initial Study is organized as follows:

Introduction: Provides the regulatory context for the review along with a brief summary of the CEQA process.

Project Information: Provides fundamental Project information, such as the Project description, Project location, and figures.

Lead Agency Determination: Identifies environmental factors potentially affected by the Project and identifies the Lead Agency's determination based on the initial evaluation.

Mitigated Negative Declaration: Prepared when a determination can be made that no significant environmental effects will occur because revisions to the Project have been made or mitigation measures will be implemented which will reduce all potentially significant impacts to less than significant levels.

Evaluating Environmental Impacts: Provides the parameters the County uses when determining level of impact.

CEQA Checklist: Provides an environmental checklist and accompanying analysis for responding to checklist questions.

References: Include a list of references and various resources utilized in preparing the analysis.

SECTION 3 – DETAILED PROJECT DESCRIPTION

Project Location

The Proposed Project is located in the unincorporated community of Joshua Tree, San Bernardino County, California (Figure 1). The project site begins at the intersection of Sunburst Avenue and State Route 62 (SR-62; Twentynine Palms Highway) and continues north for approximately two miles to the intersection of Sunburst Avenue and Calle Los Amigos (Figure 2).

Project Characteristics

The Proposed Project would include the following improvements:

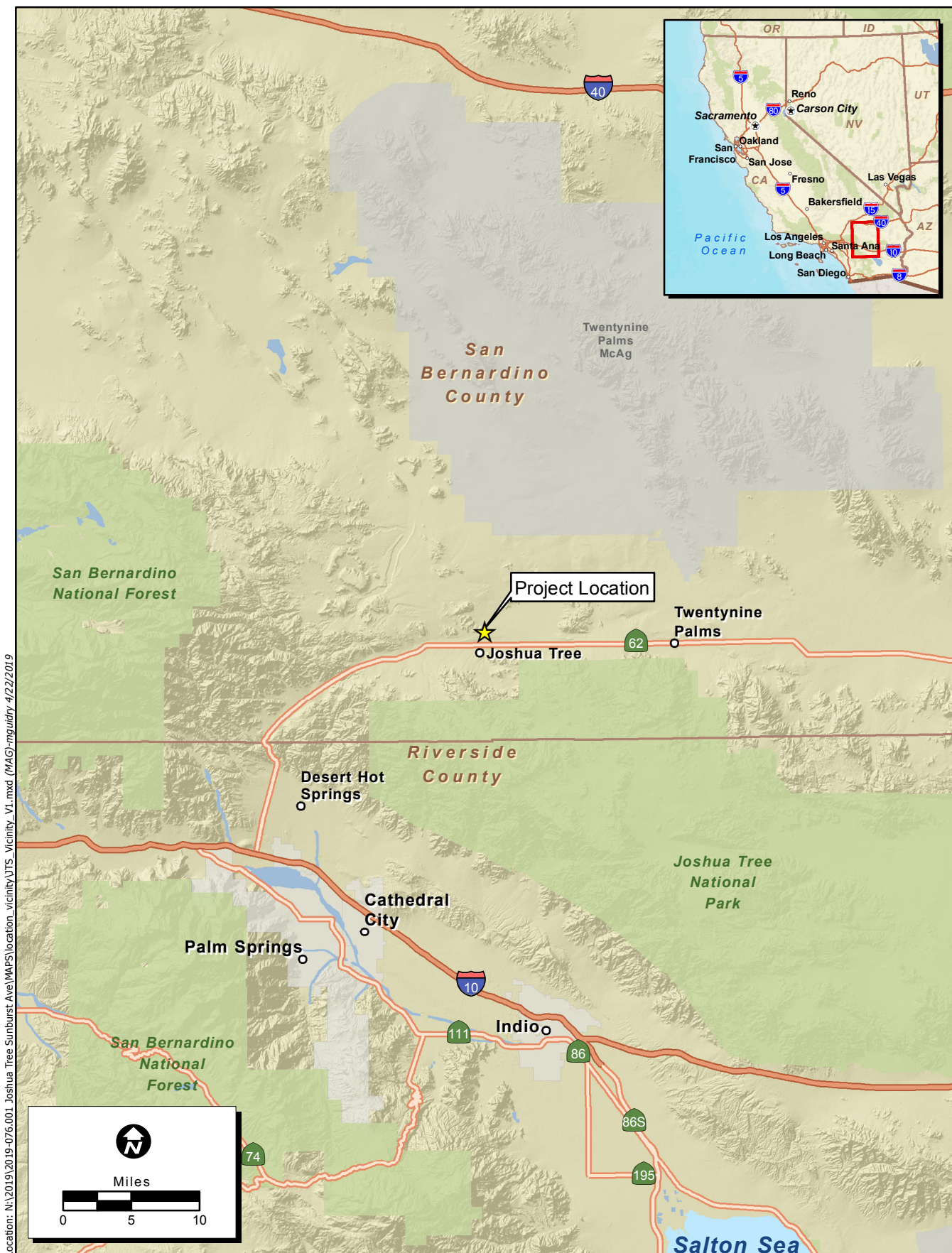
- Rehabilitate the existing Class I bike path located along the east side of Sunburst Avenue from SR-62 north to Oleander Avenue (approximately 0.5 miles)
- Construct a new Class II bike lane on the east side of Sunburst Avenue from the termination of the existing Class I bike path (Oleander Avenue) north to Calle Los Amigos (approximately 1.5 miles)
- Construct a new Class II bike lane on the west side of Sunburst from State Route 62 north to Calle Los Amigos (approximately 2.0 miles)

The rehabilitation of the existing Class I bike path on the east side of Sunburst Avenue would include a 6.5-foot shoulder between the Sunburst Avenue and the bike path, an 8-foot paved concrete bike path, and a two-foot shoulder along the eastern edge of the bike path. The new Class II bike lanes would be approximately four to five feet wide with two-foot shoulders on each side. All improvements would occur within the existing Right-of-Way (ROW) of Sunburst Avenue.

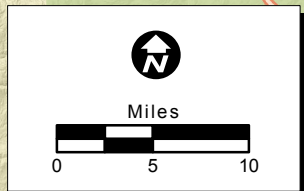
Construction of the Proposed Project would include: earthwork, including minor excavation and grading; installation of signage; and painting of pavement striping and pavement markings. Construction staging would occur at the former Joshua Tree Elementary School parking lot, located at 6051 Sunburst Street, and adjacent to the new Joshua Tree Elementary School within Sunburst Avenue near the intersection with Cowan Lane.

Project Timing

Construction is anticipated to begin in 2020 and could take up to six months to complete.

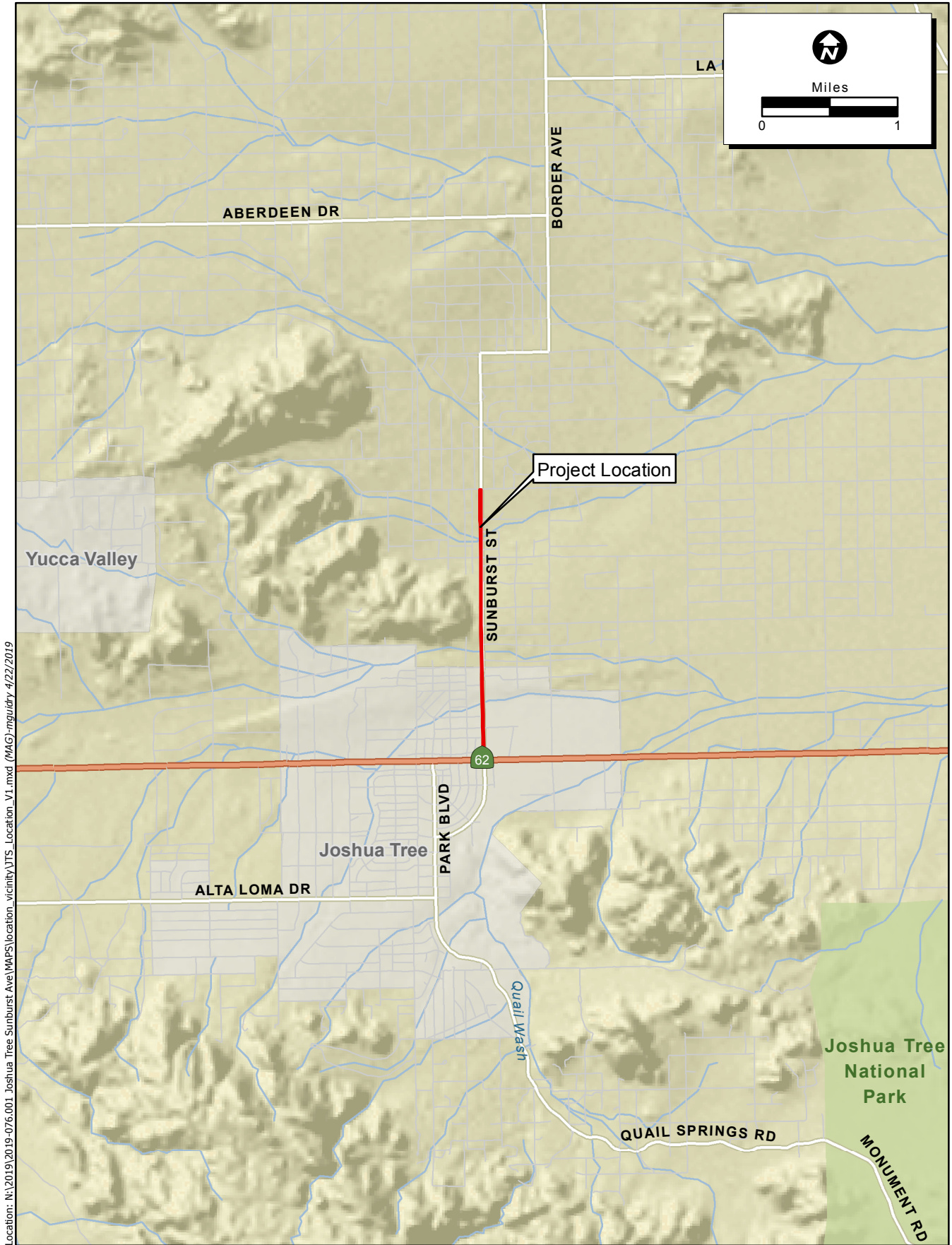


Location: N:\2019\2019-076.001_Joshua_Tree_Sunburst_Ave\MAPS\location_vicinity\JTS_Vicinity_V1.mxd (MAG) mguidry 4/22/2019



Map Date: 4/22/2019
 Service Layer Credits: Sources: Esri, USGS, NOAA

Figure 1. Regional Location
 2019-076.001 Joshua Tree Sunburst Ave



Location: N:\2019\2019-076.001_Joshua_Tree_Sunburst_Ave\MAPS\location_vicinity\JTS_Location_V1.mxd (MAG) nguidry 4/22/2019

Map Date: 4/22/2019
Source: ESRI

Figure 2. Project Location
2019-076.001 Joshua Tree Sunburst Ave

SECTION 4 – ENVIRONMENTAL CHECKLIST FORM

1. **Project Title:** Sunburst Avenue Class I Bike Path and Class II Bike Lanes Project

2. **Lead Agency Name:** County of San Bernardino Department of Public Works

Address: 825 East Third Street
San Bernardino, California 92415-0835

3. **Contact Person:** Nancy J. Sansonetti, AICP
Nancy.Sansonetti@dpw.sbcounty.gov
909-387-8109

4. **Project Location:** The Proposed Project is located in the unincorporated community of Joshua Tree, San Bernardino County, California (Figure 1). The project site begins at the intersection of Sunburst Avenue and State Route 62 (SR-62; Twentynine Palms Highway) and continues north for approximately two miles to the intersection of Sunburst Avenue and Calle Los Amigos.

Topographic Quad (USGS 7.5"): Joshua Tree North 1972 (Revised 1994)

Topographic Quad Coordinates: Township 1N, Range 6E, Sections 24 and 25

Latitude/Longitude 34° 8'57.76"N/ 116°18'31.12"W

5. **Project Sponsor:** County of San Bernardino Department of Public Works
Name and Address: Transportation Design Division
825 E. Third Street
San Bernardino, CA 92415

6. **General Plan/Zoning Designation:** Street Right-of-Way (over various land use districts)

7. Project Description Summary:

The Proposed Project would rehabilitate the existing Class I bike path located along the east side of Sunburst Avenue from SR-62 north to Oleander Avenue. The Proposed Project would also construct a new Class I bike lane on the east side of Sunburst Avenue, from the terminus of the existing Class I bike path north to Calle Los Amigos, and a new Class II bike lane on the west side of Sunburst Avenue, from SR-62 north to Calle Los Amigos.

Details of the Project are further discussed in Section 3 above.

8. Environmental/Existing Site Conditions:

The project site is located along Sunburst Avenue from SR-62 to Calle Los Amigos (approximately 2 miles). This segment of Sunburst Avenue is a paved two-lane street with unpaved road shoulders. There is an existing paved Class I bike path located along the east side of Sunburst Avenue from SR-62 north to Oleander Avenue (approximately 0.5 miles). Within the boundaries of the project site there are disturbed areas that contain little to no vegetation. Properties fronting Sunburst Avenue are sparsely developed with residential and commercial land uses. Unauthorized trash dumping and off-highway vehicle (OHV) use are prevalent in the surrounding areas, degrading the quality of vegetation located in adjacent areas. The topography of the project site is relatively flat; however, a small mountain range is located just west of the central portion of the project site. Three drainages running in a west-east direction cross the project site. No riparian habitat is associated with these drainages and no riparian habitat was identified within the project site.

9. Surrounding land uses and setting:

The project site is generally located within an area characterized by rural residential development interspersed with undeveloped properties and a few commercial and institutional land uses (Sportsman's Park, Joshua Tree Park & Recreation District).

As identified by the County of San Bernardino Land Use Plan, land use zoning districts located immediately adjacent to the trail alignment include: General Commercial (CG-SCp); Multiple Residential (RM); Institutional (IN); Single Residential (RS); and Rural Living (RL).

10. Other public agencies whose approval is required:State Agencies:

- 1) California Department of Fish and Wildlife
- 2) State Water Resources Control Board (Colorado River – R7)

11. Lead Agency Discretionary Actions:

Discretionary actions that may be taken by the Lead Agency include, but are not limited to, the following:

- Board of Supervisors, certification of environmental documentation

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact requiring mitigation to be reduced to a level that is less than significant as indicated in the checklist on the following pages.

<input type="checkbox"/>	Aesthetics	<input type="checkbox"/>	Agricultural / Forest Resources	<input type="checkbox"/>	Air Quality
<input checked="" type="checkbox"/>	Biological Resources	<input checked="" type="checkbox"/>	Cultural Resources	<input type="checkbox"/>	Energy
<input checked="" type="checkbox"/>	Geology / Soils	<input type="checkbox"/>	Greenhouse Gas Emissions	<input type="checkbox"/>	Hazards / Hazardous Materials
<input type="checkbox"/>	Hydrology / Water Quality	<input type="checkbox"/>	Land Use / Planning	<input type="checkbox"/>	Mineral Resources
<input type="checkbox"/>	Noise	<input type="checkbox"/>	Population / Housing	<input type="checkbox"/>	Public Services
<input type="checkbox"/>	Recreation	<input type="checkbox"/>	Transportation	<input checked="" type="checkbox"/>	Tribal Cultural Resources
<input type="checkbox"/>	Utilities / Service Systems	<input type="checkbox"/>	Wildfire	<input type="checkbox"/>	Mandatory Findings of Significance

LEAD AGENCY DETERMINATION

On the basis of this initial evaluation, the following finding is made:

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


 Signature [Darren J. Meeka, P.E., Chief]

09/11/19
 Date

1. AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade an 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?				X
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X

(Check if project is located within a view-shed of any Scenic Route listed in the General Plan):

Environmental Setting

Regional Setting

The project site is located within the community of Joshua Tree. Joshua Tree is nestled in the foothills in southeastern California's Mojave Desert and is located in southcentral San Bernardino County. Joshua Tree is generally bordered on the north by the Twentynine Palms Marine Corps Base, partially on the east by the City of Twentynine Palms and Copper Mountain, on the south by the Joshua Tree National Park, on the southwest by the Town of Yucca Valley and on the northwest by the eastern boundary of the Homestead Valley Community. Joshua Tree's community character is drawn from the desert landscape and rugged mountain setting of its surroundings. Prominent topographic features in the project area include the Bartlett Mountains to the west and the San Bernardino Mountains to the south.

State Scenic Highways

The California Scenic Highway Program protects and enhances the scenic beauty of California's highways and adjacent corridors. A highway can be designated as scenic based on how much natural beauty can be seen by users of the highway, the quality of the scenic landscape, and if development impacts the enjoyment of the view. SR-62, located just south of the project site, is an Eligible State Scenic Highway (Caltrans 2019). The portion of SR-62 south of the project site is an Officially Designated County Scenic Route (County of San Bernardino 2006b).

Visual Character of the Project Site

The project site is located entirely within the ROW of Sunburst Avenue between SR-62 north to Calle Los Amigos (approximately 2 miles). This segment of Sunburst Avenue is a paved two-lane street with unpaved road

shoulders. There is an existing paved Class I bike path located along the east side of Sunburst Avenue from SR-62 north to Oleander Avenue (approximately 0.5 miles). Within the boundaries of the project site there are disturbed areas that contain little to no vegetation. Properties fronting Sunburst Street are sparsely developed with residential and commercial land uses. Unauthorized trash dumping and OHV use are prevalent in the surrounding areas. The topography of the project site is relatively flat; however, a small mountain range (Bartlett Mountains) is located just west of the central portion of the project site.

Impact Analysis

a) *Have a substantial adverse effect on a scenic vista?*

No Impact. The project site is surrounded by scenic views of the desert landscape including prominent topographic features, which include the Bartlett Mountains to the west and the San Bernardino Mountains to the south. The Project proposed rehabilitation of an existing Class I bike path and the construction of new Class II bike lanes on the northbound and southbound sides of Sunburst Avenue. Proposed improvements are not anticipated to affect the viewsheds or scenic vista of the project site and in turn would enhance accessibility for non-motorized users along Sunburst Avenue. No Impact would occur.

b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

No Impact. The project site is not located within the viewshed of a state scenic highway (Caltrans 2019). However, SR-62 located just south of the project site is an Eligible State Scenic Highway (Caltrans 2019). The Joshua Tree Community Plan includes a policy to seek state support and assistance for the designation of SR-62 as an official State Scenic Highway (County of San Bernardino 2007b). The portion of SR-62 south of the project area is an Officially Designated County Scenic Route (County of San Bernardino 2006b).

The Proposed Project would be constructed entirely within the ROW of Sunburst Avenue and would not affect potentially scenic resources along SR-62. Proposed improvements are located at ground level and are not anticipated to affect the viewsheds along SR-62 or Sunburst Avenue. In turn, the improvements would enhance accessibility for non-motorized vehicle users and pedestrians. No Impact would occur.

c) *Substantially degrade an 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?*

No Impact. The project site is located entirely within the ROW of Sunburst Avenue and improvements would be located at ground level. This segment of Sunburst Avenue is a paved two-lane street with unpaved road shoulders. There is an existing paved Class I bike path located along the east side of Sunburst Avenue from SR-62 north to Oleander Avenue (approximately 0.5 miles). Within the boundaries of the project site there are disturbed areas that contain little to no vegetation. Properties fronting Sunburst Street are sparsely developed with residential and commercial land uses. Unauthorized trash dumping and OHV use are prevalent in the surrounding areas. The topography of the project site is relatively flat; however, a small mountain range (Bartlett Mountains) is located just west of the central portion of the project site.

The Proposed Project would be consistent and compatible with the land uses of the area and not degrade the existing visual character of the area. No impact would occur.

d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

No Impact. The Proposed Project does not include lighting nor the use of materials that would generate glare. No impact would occur.

Mitigation Measures

None.

Aesthetics Impact Conclusions

No significant impacts were identified, and no mitigation measures are required.

2. AGRICULTURE AND FORESTRY RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

(Check if project is located in the Important Farmlands Overlay):

Environmental Setting

The Proposed Project is located in the unincorporated community of Joshua Tree, San Bernardino County, California. The project site begins at the intersection of Sunburst Avenue and SR-62; and continues north for approximately two miles to the intersection of Sunburst Avenue and Calle Los Amigos, east and southeast of

Bartlett Mountains. The Proposed Project traverses or is immediately adjacent to property with the following zoning designations: Joshua Tree – General Commercial-Sign Control Primary; Multiple Residential; Institutional; Single Residential; Single Residential – 14,000 square feet Minimum, and Rural Living (County of San Bernardino 2019).

Impact Analysis

a) *Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

No Impact. The project site is located within street ROW in the community of Joshua Tree and is not located within farmland uses. According to the California Farmland Mapping and Monitoring Program (FMMP) Important Farmlands Map for San Bernardino County, the project site is not located within Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) (CDC 2017). Therefore, the Proposed Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use. No impact would occur.

b) *Conflict with existing zoning for agricultural use or a Williamson Act contract?*

No Impact. The project site is located within street ROW traversing or immediately adjacent to property with the following zoning designations: Joshua Tree – General Commercial-Sign Control Primary; Multiple Residential; Institutional; Single Residential; Single Residential – 14,000 square feet Minimum, and Rural Living (County of San Bernardino 2019). According to the California Department of Conservation Williamson Act Parcels Map for San Bernardino County, the project site is not subject to a Williamson Act Contract (CDC 2016). Therefore, the Proposed Project would not result in a conflict with an agricultural zoning designation or a Williamson Act Contract. No impact would occur.

c) *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?*

No Impact. As identified by the County of San Bernardino Land Use Services Zoning Look-up Web Application, zoning designations traversed or immediately adjacent to the Proposed Project include: Joshua Tree – General Commercial-Sign Control Primary; Multiple Residential; Institutional; Single Residential; Single Residential – 14,000 square feet Minimum, and Rural Living (County of San Bernardino 2019). The Proposed Project would not conflict with existing zoning of forest land, timberland, or timberland zone production. No impact would occur.

d) *Result in the loss of forest land or conversion of forest land to non-forest use?*

No Impact. The project site is not zoned for forest land, timberland, or timberland production (County of San Bernardino 2019). The project site is located within street right-of-way and does not contain forestland or timberland. No impact would occur.

e) *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?*

No Impact. The Proposed Project is located within street right-of-way along Sunburst Avenue. The Project alignment is not located within agricultural use land. Therefore, the Proposed Project would not convert farmland to non-agricultural use or convert forest land to non-forest use. No impact would occur.

Mitigation Measures

None.

Agriculture and Forestry Services Impact Conclusions

No significant impacts were identified, and no mitigation measures are required.

3. AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?				X
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

(Discuss conformity with the South Coast Air Quality Management Plan, if applicable):

Environmental Setting

The project site is located in the unincorporated community of Joshua Tree, located in southern San Bernardino County. The California Air Resource Board (CARB) has divided California into regional air basins according to topographic features. San Bernardino County and the Project site are located in a region identified as the Mojave Desert Air Basin (MDAB). The MDAB is an assemblage of mountain ranges interspersed with long broad valleys that often contain dry lakes. Many of the lower mountains which dot the vast terrain rise from 1,000 to 4,000 feet above the valley floor. Prevailing winds in the MDAB are out of the west and southwest. These prevailing winds are due to the proximity of the MDAB to coastal and central regions and the blocking nature of the Sierra Nevada mountains to the north; air masses pushed onshore in southern California by differential heating are channeled through the MDAB.

Both the U.S. Environmental Protection Agency (USEPA) and the CARB have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants representing safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called “criteria” pollutants because the health and other effects of each pollutant are described in criteria documents. The six criteria pollutants are ozone (O₃) (O₃ precursor emissions include nitrogen oxide (NO_x) and reactive organic gases (ROG)), carbon monoxide (CO), particulate matter (PM), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and lead. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. The San Bernardino portion of the MDAB is designated as a nonattainment area for the federal O₃ and PM₁₀ standards and is also a nonattainment area for the state standards for O₃, PM₁₀, and PM_{2.5}.

The local air quality agency affecting the MDAB is the Mojave Desert Air Quality Management District (MDAQMD), which is charged with the responsibility of implementing air quality programs and ensuring that national and state ambient air quality standards are not exceeded and that air quality conditions are maintained in the MDAB. In an attempt to achieve national and state ambient air quality standards and maintain air quality,

the air district has completed the several air quality attainment plans and reports, which together constitute the State Implementation Plan (SIP) for the portion of the MDAB encompassing the Project.

Impact Analysis

a) Conflict with or obstruct implementation of the applicable air quality plan?

No Impact. As part of its enforcement responsibilities, the EPA requires each state with nonattainment areas to prepare and submit a SIP that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under state law, the California Clean Air Act requires an air quality attainment plan to be prepared for areas designated as nonattainment with regard to the federal and state ambient air quality standards. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

As previously mentioned, the project site is located within the MDAB, which is under the jurisdiction of the MDAQMD. The MDAQMD is required, pursuant to the federal Clean Air Act, to reduce emissions of criteria pollutants for which the air basin is in nonattainment. In order to reduce such emissions, the MDAQMD adopts and enforces rules and regulations concerning sources of air pollution, issues permits for stationary sources of air pollution, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by the federal Clean Air Act and Clean Air Act Amendments. The MDAQMD also assists CARB in preparing the SIP by preparing Attainment Plans that demonstrate how the ambient air quality standards will be achieved. The Attainment Plans describe the rules, policies, and other means by which the MDAQMD manages the emissions within its jurisdiction.

A project is conforming with the MDAQMD Attainment Plans if it complies with all applicable district rules and regulations, complies with all control measures 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). A project is nonconforming if it conflicts with or delays implementation of any applicable attainment or maintenance plan. Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast. An example of a nonconforming project would be one that increases the gross number of dwelling units, increases the number of trips, and/or increases the overall vehicle miles traveled in an affected area (relative to the applicable land use plan).

The Proposed Project would comply with all applicable district rules and regulations and would comply with all proposed control measures from the applicable plans. As demonstrated under Issue b) below, the Proposed Project would not surpass any of the MDAQMD's significance thresholds for individual pollutants. Additionally, the Proposed Project would not be impacting the growth forecast used to inform MDAQMD air quality planning. Since the Proposed Project would not generate a significant amount of air pollutants and would not exceed the population or job growth projections used to develop MDAQMD's Attainment Plans, it would not result in a conflict.

For these reasons, no impact would occur.

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?

Less Than Significant.

Regional Construction Significance Analysis

Construction-generated emissions are temporary and short term but have the potential to represent a significant air quality impact. Three basic sources of short-term emissions will be generated through construction of the Proposed Project: operation of the construction vehicles (i.e., excavators, trenchers, dump trucks), the creation of fugitive dust during clearing and grading, and construction worker commutes. Construction activities such as excavation and grading operations, construction vehicle traffic, and wind blowing over exposed soils would generate exhaust emissions and fugitive particulate matter emissions that affect local air quality at various times during construction. Effects would be variable depending on the weather, soil conditions, the amount of activity taking place, and the nature of dust control efforts.

Construction-generated emissions associated with the Proposed Project were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. See Appendix A for more information regarding the construction assumptions, including construction equipment and duration, used in this analysis.

Predicted maximum daily construction-generated emissions for the Proposed Project are summarized in Table 3-1. Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the MDAQMD's thresholds of significance.

Table 3-1. Construction-Related Emissions (Regional Significance Analysis)						
Construction Year	Maximum Pollutants (pounds per day)					
	ROG	NO_x	CO	SO₂	PM₁₀	PM_{2.5}
Annual (Maximum Tons per Year)						
Construction - 2020	0.64	6.51	4.68	0.00	0.41	0.32
<i>MDAQMD Annual Significance Threshold</i>	25	25	100	25	15	12
Exceed MDAQMD Annual Threshold?	No	No	No	No	No	No
Daily (Maximum Pounds per Day)						
Construction - 2020	11.57	112.26	85.54	0.17	7.84	5.31
<i>MDAQMD Daily Significance Threshold</i>	137	137	548	137	82	65
Exceed MDAQMD Daily Threshold?	No	No	No	No	No	No

Source: CalEEMod version 2016.3.2. Refer to Appendix A for Model Data Outputs.

Notes: Emission estimates account for the grading of 84,480 square feet as well as the removal of 1,016 tons of debris.

As shown in Table 3-1, emissions generated during construction would not exceed the MDAQMD's annual or daily regional thresholds of significance. This would be considered a less than significant impact.

Project Operations Criteria Air Quality Emissions

Regional Operational Significance Analysis

The Proposed Project involves the construction of approximately 2 miles of bike paths and lanes. The Proposed Project would not include the provision of new permanent stationary or mobile sources of emissions, and therefore, by its very nature, would not generate quantifiable air quality emissions from Project operations. The Proposed Project does not propose any buildings and therefore no permanent source or stationary source emissions. Furthermore, the Proposed Project could be expected to reduce traffic trips in the area due to its ability meet the identified need for a non-vehicular trail to service local residents in the community. This potential reduction of automobile trips attributable to the Proposed Project would reduce the amount of daily criteria air pollutants currently being generated. Thus, there would be no operational impact related to air quality.

For these reasons, the impact would be a less than significant impact.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant. Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

Construction-Generated Air Contaminants

Construction-related activities would result in temporary, short-term Project-generated emissions of diesel particulate matter (DPM) from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing, grading); soil hauling truck traffic; paving; and other miscellaneous activities. For construction activity, DPM is the primary toxic air contaminant (TAC) of concern. Particulate exhaust emissions from diesel-fueled engines (i.e., DPM) were identified as a TAC by the CARB in 1998. The potential cancer risk from the inhalation of DPM, as discussed below, outweighs the potential for all other health impacts (i.e., non-cancer chronic risk, short-term acute risk) and health impacts from other TACs. Accordingly, DPM is the focus of this discussion.

Based on the emission modeling conducted the maximum construction-related emissions of exhaust PM_{2.5}, considered a surrogate for DPM, would be 4.67 pounds per day (see Appendix A) during construction activity (PM_{2.5} is considered a surrogate for DPM because more than 90 percent of DPM is less than 1 microgram in diameter and therefore is a subset of particulate matter under 2.5 microns in diameter (i.e., PM_{2.5}), according to CARB. Most PM_{2.5} derives from combustion, such as use of gasoline and diesel fuels by motor vehicles.) Furthermore, even during the most intense month of construction, emissions of DPM would be generated from different locations on the Project site, rather than a single location, because different types of construction activities (e.g., site preparation, grading, paving) would not occur at the same place at the same time and also due to the long length of the construction area.

The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively

correlated with time, meaning that a longer exposure period would result in a higher exposure level for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70-, 30-, or 9-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the Proposed Project. Consequently, an important consideration is the fact that construction of the Proposed Project is not anticipated to last 9 consecutive years, the minimum duration of exposure from which to calculate health risk (Project construction is anticipated to last approximately 6 months), and that on a day-to-day basis construction activity generally spans eight hours as opposed to throughout the entire day. Therefore, considering the relatively low mass of DPM emissions that would be generated during even the most intense season of construction and the relatively short duration of construction activities required to develop the site, construction-related TAC emissions would not expose sensitive receptors to substantial amounts of air toxics.

Operational Air Contaminants

The Proposed Project involves the construction of approximately 2 miles of bike paths and lanes. The Proposed Project would not include the provision of new permanent stationary or mobile sources of emissions, and therefore, by its very nature, will not generate quantifiable air toxic emissions from Project operations.

For these reasons, the impact would be a less than significant impact.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant. Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

Construction

During construction, the Proposed Project presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the site. However, these emissions are short-term in nature and will rapidly dissipate and be diluted by the atmosphere downwind of the emission sources. Additionally, odors would be localized and generally confined to the construction area. Therefore, under CEQA, construction odors would result in a less than significant impact related to odor emissions.

Operations

The CARB's *Air Quality and Land Use Handbook* (2005) identifies the sources of the most common operational odor complaints received by local air districts. Typical sources include facilities such as sewage treatment plants, landfills, recycling facilities, petroleum refineries, and livestock operations. The Proposed Project does not contain any of the land uses identified as typically associated with emissions of objectionable odors. As such, a less than significant impact would occur.

For these reasons, the impact would be a less than significant impact.

Mitigation Measures

None.

Air Quality Impact Conclusions

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

4. BIOLOGICAL RESOURCES

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

Check if project is located in the Biological Resources Overlay or Contains habitat for any species listed in the California Natural Diversity Database

Environmental Setting

A Biological Technical Report was completed for the Proposed Project (ECORP 2019b; Appendix B). A reconnaissance-level biological survey was conducted to document the existing biological resources, to assess the habitat for its potential to support sensitive plant and wildlife species, and to determine whether impacts would occur to sensitive biological resources, as required under CEQA.

The project site consists of an existing paved roadway with adjacent residential and commercial development. Disturbed areas that contain little to no vegetation are interspersed throughout the boundaries of the project site. Unauthorized trash dumping and OHV use are prevalent in the surrounding areas, degrading the quality of vegetation located in adjacent areas. The topography of the project site is relatively flat; however, a small mountain range is located just west of the central portion of the project site. Three drainages running in a west-east direction cross the project site. No riparian habitat is associated with these drainages and no riparian habitat was identified within the project site. Some willows were observed in a front yard of an adjacent residence, but

these willows appeared to have been planted as ornamental plantings and did not comprise an area that would be classified as riparian habitat (ECORP 2019b).

Impact Analysis

- a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

Less Than Significant with Mitigation Incorporated

Special-Status Plants

The literature search completed for the Proposed Project identified 16 special-status plant species that have been documented near the project site. All 16 species are presumed absent from the project site because of the lack of suitable habitat. The project site is heavily disturbed and developed which includes areas that are graded with compacted soils and/or paved (ECORP 2019b).

Special-Status Wildlife

The literature search completed for the Proposed Project identified 19 special-status wildlife species that have been documented near the project site. All but three of the 19 species are presumed absent due to the project site's current heavily disturbed and developed condition (ECORP 2019b).

The three species with the potential to occur within or adjacent to the Proposed Project include burrowing owl (*Athene cunicularia*), desert tortoise (*Gopherus agassizii*), and Le Conte's thrasher (*Toxostoma lecontei*). These three special-status wildlife species were found to have a low potential to occur within the project site. The project site does not provide suitable habitat for any of these three species. However, these species were all recently documented within one to two miles from the project site and the disturbed Mojave creosote bush scrub in the immediately adjacent areas provides low-quality suitable habitat for these species. Furthermore, there is potential for these species to occur on or adjacent to the project site due to their mobile nature (for example, a desert tortoise could occur on the project site if it was trying to cross Sunburst Avenue from one area of disturbed Mojave creosote bush scrub to another). If these species were to occur on or adjacent to the project site, direct impacts in the form of mortality or injury could occur in the form of vehicle or equipment strike. Indirect impacts could occur in the form of increased human/vehicular activity, noise, ground vibration, and increased dust as a result of construction activities. Implementation of **Mitigation Measures BIO-1 and BIO-2** would reduce these potential project-related impacts to a less than significant level.

Nesting Birds

Although no suitable habitat for nesting birds and raptors was identified on the project site, the disturbed Mojave creosote bush scrub and structures immediately adjacent to the project site (e.g., buildings, wooden electrical poles) could provide nesting habitat for avian species protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code, including burrowing owl and Le Conte's thrasher. If construction of the Proposed Project occurs during the bird breeding season (typically February 1 through August 31), ground-disturbing construction activities could indirectly affect birds protected by the MBTA and their nests through increased

human/vehicular activity, noise, ground vibration, and increased dust. Impacts to nesting birds would be less than significant with the implementation of **Mitigation Measure BIO-3**.

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 Wildlife or U.S. Fish and Wildlife Service?*

No Impact. The project site is characterized by disturbed and developed land that supports mostly nonnative grass and forb species. No riparian habitat was identified within the project site. Although three drainages cross the project site, there is no riparian habitat associated with these drainages. Some willows were observed in a front yard of an adjacent residence, but these willows appeared to have been planted as ornamental landscaping and did not comprise an area that would be classified as riparian habitat. The project site does not contain any riparian habitat or sensitive natural communities that would need to be preserved (ECORP 2019b). No impact would occur.

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?*

No Impact. The Proposed Project crosses three washes. A total of 1.41 acres of aquatic resources have been mapped within the project site. There were no suspected Waters of the U.S. (wetlands or non-wetlands) present within the project site. All mapped features are considered to be state-jurisdiction only. The Proposed Project as currently designed would not impact any recorded features, because the work is restricted to within the Sunburst Avenue paved portions and graded road shoulder (ECORP 2019c). No impact would occur.

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?*

No Impact. The project site is located within and adjacent to areas containing existing disturbances (i.e., paved roads and residential and commercial development). The project site is heavily disturbed and/or developed and does not provide suitable habitat or cover that is conducive to the movement of wildlife. No migratory wildlife corridors or native wildlife nursery sites were identified within the project site. No impact would occur.

e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

No Impact. Local policies and/or ordinance applicable to the project area include:

San Bernardino County Development Code (2007) section 88.01.060 *Desert Native Plant Protection* details the protection of desert native plants, including:

- 1) All species of the family the following desert native plants with stems two inches or greater in diameter or six feet or greater in height:
 - a) *Dalea spinosa* (smoketree).
 - b) All species of the genus *Prosopis* (mesquites).
- 2) All species of the family *Agavaceae* (century plants, nolinias, yuccas).

- 3) Creosote Rings, 10 feet or greater in diameter.
- 4) All Joshua trees.
- 5) Any part of any of the following species, whether living or dead:
 - a) *Olneya tesota* (desert ironwood).
 - b) All species of the genus *Prosopis* (mesquites).
 - c) All species of the genus *Cercidium* (palos verdes).

Joshua Tree's Community Plan Policy JT/CO 1.2 details the protection of Joshua trees, Mojave yuccas, and creosote rings.

As previously stated, the project site is heavily disturbed and/or developed which include areas that are graded with compacted soils and/or paved. The previously listed desert native plants would not be affected by the Proposed Project. No impact would occur.

- 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?*

No Impact. The project site is not located within a Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP). Therefore, development of the project site would not conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional or state HCP. No impact would occur.

Mitigation Measures

BIO-1 Pre-construction Survey for Burrowing Owl: A pre-construction survey for burrowing owl shall be conducted within project site and adjacent areas prior to the start of construction. The survey shall follow the methods described in the CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). The pre-construction burrowing owl survey shall be conducted between 30 and 14 days prior to initial ground disturbance (grading, grubbing, and construction). If burrowing owls or their sign (e.g., burrows with whitewash, pellets, bones of prey items) are identified during the pre-construction survey, then a second pre-construction survey will be conducted no more than 24 hours prior to initial ground disturbance. If burrowing owls and/or suitable burrowing owl burrows with sign (e.g., whitewash, pellets, feathers, prey remains) are identified on the project site during the survey(s) and impacts to those features are unavoidable, consultation with the CDFW shall be conducted and the methods described in the CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFW 2012) for avoidance and/or passive relocation shall be followed.

BIO-2 Pre-construction Survey for Desert Tortoise: A pre-construction survey for desert tortoise shall be conducted prior to the start of ground-disturbing activities in accordance with the protocol methods outlined in *Preparing for Any Action that May Occur within the Range of the Mojave Desert Tortoise* (USFWS 2018). If desert tortoises or desert tortoise sign (e.g., burrows, carcasses, scat) are observed on or immediately adjacent to the project site, then coordination with USFWS and CDFW will need to occur and avoidance or minimization measures, such as biological monitoring and no disturbance buffers around burrows, may need to be implemented.

If project-related impacts to the desert tortoise are found to be unavoidable and significant following the pre-construction survey, then the necessary state and federal permits will need to be obtained from CDFW and USFWS prior to the start of project activities.

BIO-3 Pre-construction Nesting Bird Survey: If construction or other project activities are scheduled to occur during the bird breeding season (typically February 1 through August 31 for raptors and March 15 through August 31 for the majority of migratory bird species), a pre-construction nesting bird survey shall be conducted by a qualified avian biologist to ensure that active bird nests, including those for the Le Conte's thrasher, will not be disturbed or destroyed. The survey shall be completed no more than three days prior to initial ground disturbance and may be combined with the second burrowing owl survey identified in Mitigation Measure BIO-1 if a second pre-construction burrowing owl survey is conducted on site. The nesting bird survey shall include the project site and adjacent areas where project activities have the potential to affect active nests, either directly or indirectly due to construction activity or noise. If an active nest is identified, the biologist shall establish an appropriately-sized disturbance limit buffer around the nest using flagging or staking. Construction activities shall not occur within any disturbance limit buffer zones until the nest is deemed inactive by the qualified biologist.

Biological Resources Impact Conclusions

With implementation of the above listed measures, less than significant impacts would occur.

5. CULTURAL RESOURCES

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

(Check if project is located in the Cultural overlays or cite results of cultural resource review)

Environmental Setting

A Cultural Resources Investigation was prepared by ECORP Consulting, Inc. for the Proposed Project to determine if cultural resources were present in or adjacent to the project site and assess the sensitivity of the project area for undiscovered or buried cultural resources (ECORP 2019d; Appendix D). The Cultural Resources Investigation consisted of a cultural resources records search, Native American Heritage Commission (NAHC) Sacred Lands File search, a field survey of the project area, and resource evaluations for the California Register of Historical Resources (CRHR) and the National Register of Historic Places (NRHP). The results of this report are summarized below.

Impact Analysis

a) *Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?*

No Impact. A cultural resources records search was completed at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton in March 2019. The records search results indicated that two cultural resources were documented within the project site, which included a segment of historic-period Sunburst Avenue (P36-024659/CA-SBR-15700H) and a historic-period General Land Office (GLO) Survey marker (P36-020672). An additional 37 resources have been documented within a one-mile radius of the project site. The records search indicated that portions of the project site had been previously surveyed in 1974, 1975, 2009, and 2013 and 12 additional cultural resources investigations were conducted within the one-mile records search radius between 1974 and 2013. A search of the Sacred Lands File from the NAHC was completed in May 2019. The search results were negative, indicating no record for the presence of Native American Sacred Lands within the project area. In addition to the search of the Sacred Lands File, the NAHC identified eight Native American groups and individuals with historical and traditional ties to the project site.

As a result of the field survey, two historic-period utility line segments (SB-001 and SB-002) were documented and two previously recorded resources, a segment of Sunburst Avenue and a GLO quarter section marker, were field checked. The GLO quarter section marker was found to be no longer extant. A segment of Sunburst Avenue and the two newly recorded utility segments were evaluated as not eligible for inclusion in the CRHR and are therefore not Historical Resources as defined by CEQA (ECORP 2019d). Therefore, the Proposed Project would not result in impacts to a Historical Resource.

b) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

Less Than Significant with Mitigation Incorporated. Based on records search information and geologic maps of the area, there is a low potential to encounter subsurface archaeological material on the project site. The records search results information indicate that eight pre-contact resources have been previously recorded within a one-mile radius of the project site; however, it is unknown if any of those resources contain subsurface deposits. Geologic maps of the area show that the project site contains recent and older Pleistocene quaternary alluvium. Older Pleistocene sediments would predate human occupation of the region. While recent Pleistocene sediments are contemporaneous with the earliest known human occupation of the region, sites within areas containing these sediments are typically located on the surface, with a significantly lower potential for subsurface cultural deposits. Holocene sediments are more likely to contain evidence of human occupation than Pleistocene sediments. Additionally, the area contains no bedrock outcrops and does not contain resources (e.g., rivers, lakes, mesquite stands) that would suggest that it was a likely location of resource procurement. Therefore, the potential to encounter prehistoric subsurface cultural deposits is considered to be low (ECORP 2019d).

Although the archaeological sensitivity of the project site is considered to be low, there always remains some potential for ground-disturbing activities to expose previously unrecorded cultural resources. With the implementation of **Mitigation Measure CUL-1**, potential impacts to unanticipated cultural resources found during project construction would be less than significant.

c) *Disturb any human remains, including those interred outside of formal cemeteries?*

Less Than Significant with Mitigation Incorporated. No known human remains are present on the project site. If human remains are inadvertently uncovered during project activities, adherence to **Mitigation Measure CUL-2** would reduce impacts to less than significant.

Mitigation Measures

CUL-1 Should unanticipated or inadvertent surface and/or subsurface prehistoric or historic archaeological resources, built environment, and/or tribal cultural resources, appear to be encountered during construction or maintenance activity associated with this project, then all work must halt within a 100-foot radius of the discovery until a qualified professional can evaluate the discovery. If the finds are archaeological or historic in nature, then an archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and/or historic archaeology have evaluated the significance of the find. This archaeologist shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following shall apply, depending on the nature of the find:

- A. If the professional archaeologist determines that the find *does not* represent a cultural resource, then work may resume immediately and no agency notifications are required.
- B. If the professional archaeologist determines that the find *does* represent a cultural resource from any time or cultural affiliation then, depending on the nature of the discovery, appropriate treatment measures shall be developed.

- C. If the find represents a Native American or potentially Native American resource that does not include human remains, which may or may not include a Tribal Cultural Resource, then the archaeologist shall consult with appropriate Tribe[s] on whether or not the resource represents either a Tribal Cultural Resource or a Historical Resource, or both, and, if so, consult on appropriate treatment measures. Preservation in place is the preferred treatment, if feasible. Work cannot resume within the no-work radius until the County, through consultation as appropriate, determines that the site either: 1) is not a Tribal Cultural Resource or Historical Resource; or 2) that the treatment measures for the Tribal Cultural Resource or Historical Resource have been completed.

CUL-2

If the find during construction or maintenance activity includes human remains, or remains that are potentially human, the archaeologist shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the San Bernardino County Coroner (per §7050.5 of the Health and Safety Code). The Coroner's Office may be contacted at Coroner's Division, County of San Bernardino, 175 South Lena Road, San Bernardino, California 92415 or by calling 909.387.2978. The provisions of §7050.5 of the California Health and Safety Code, §5097.98 of the California Public Resources Code, and Assembly Bill 2641 will be implemented. If the Coroner determines the remains are Native American, the Coroner will notify the NAHC by telephone within 24 hours. The NAHC will then immediately notify the person it believes to be the Most Likely Descendant (MLD) of the remains (§5097.98 of the Public Resources Code). The designated MLD will have 48 hours, from the time access to the property is granted, to make recommendations concerning treatment of the remains, in accordance with California Health and Safety Code §7050.5 and CEQA Guidelines §15064.5(e). If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§5097.94 of the Public Resources Code). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§5097.98 of the Public Resources Code). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the County, through consultation as appropriate, determines that the treatment measures have been completed to its satisfaction.

If the Coroner determines that the remains are not of Native American origin and that the remains are from the historic-era, the County Coroner will make a recommendation as to the disposition of the remains. Construction may continue once compliance with all relevant sections of the California Health and Safety Code has been addressed and an authorization to proceed is issued by the County Coroner.

Cultural Resources Impact Conclusions

With implementation of the above listed measures, less than significant impacts would occur.

6. ENERGY

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

Environmental Setting

Introduction

Energy consumption is analyzed in this Initial Study due to the potential direct and indirect environmental impacts associated with the Proposed Project. Such impacts include the depletion of nonrenewable resource (oil, natural gas, coal, etc.) due to the construction phase.

Electricity/Natural Gas Services

Southern California Edison provides electrical services to San Bernardino County through State-regulated public utility contracts. Southern California Edison, the largest subsidiary of Edison International, is the primary electricity supply company to much of Southern California. It provides 14 million people with electricity across a service territory of approximately 50,000 square miles.

The Southern California Gas Company provides natural gas services to the project area. Southern California Gas services approximately 21.6 million customers, spanning roughly 20,000 square miles of California.

Energy Consumption

Electricity is measured in kilowatt-hours (kWh), and natural gas is measured in therms. Vehicle fuel use is typically measured in gallons (e.g. of gasoline or diesel fuel), although energy use for electrician vehicles is measured in kWh.

The electricity consumption associated with all non-residential uses in San Bernardino County from 2013 to 2017 is shown in Table 6-1. As indicated, the demand has increased since 2013.

Year	Residential Electricity Consumption (kilowatt hours)
2017	10,062,005,941
2016	9,952,469,757
2015	9,806,131,162
2014	9,983,156,200
2013	9,678,784,604

Source: ECDMS 2018

The natural gas consumption associated with all non-residential uses in San Bernardino County from 2013 to 2017 is shown in Table 6-2. As indicated, the demand has increased since 2013.

Year	Residential Natural Gas Consumption (therms)
2017	257,879,077
2016	259,752,692
2015	245,499,027
2014	238,061,850
2013	239,507,329

Source: ECDMS 2018

Off-road (construction-related) fuel consumption in San Bernardino County from 2015 to 2019 is shown in Table 6-3. As indicated, off-road fuel consumption has increased since 2015.

Year	Off-Road Fuel Consumption (gallons)
2019	10,019,180
2018	9,657,613
2017	9,240,579
2016	9,045,689
2015	8,660,391

Source: CARB 2014

Impact Analysis

a) *Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?*

Less Than Significant. Addressing energy impacts requires an agency to make a determination as to what constitutes a significant impact. There are no established thresholds of significance, statewide or locally, for what constitutes a wasteful, inefficient, and unnecessary consumption of energy for a proposed land use project. For the purpose of this analysis, the amount of electricity and natural gas estimated to be consumed by the Proposed Project is quantified and compared to that consumed by non-residential land uses in San Bernardino County. Similarly, the amount of fuel necessary for project construction is calculated and compared to that consumed in the MDAB portion of San Bernardino County.

The analysis of electricity gas usage is based on California Emissions Estimator Model (CalEEMod) modeling conducted by ECORP Consulting (see Appendix A), which quantifies energy use for project operation. The amount of total construction-related fuel use was estimated using ratios provided in the Climate Registry's General Reporting Protocol for the Voluntary Reporting Program, Version 2.1. Energy consumption associated with the Proposed Project is summarized in Table 6-4.

Table 6-4. Proposed Project Energy and Fuel Consumption		
Energy Type	Annual Energy Consumption	Percentage Increase Countywide
Electricity Consumption ¹	0 kilowatt-hours	0.00 %
Natural Gas ¹	0 therms	0.00 %
<i>Automotive Fuel Consumption</i>		
• Project Construction ²	81,379 gallons	0.80 %

Source: ¹Electricity and Natural Gas consumption calculated by ECORP Consulting using CalEEMod 2016.3.2; ²Climate Registry 2016; ³EMFAC2014 Notes: The Project increases in electricity and natural gas consumption are compared with all of the non-residential buildings in San Bernardino County in 2017, the latest data available. The Project increases in automotive fuel consumption are compared with the countywide fuel consumption in 2019, the most recent full year of data.

As shown in Table 6-4, there would be no increase in electricity usage or natural gas consumption compared to that of non-residential land uses as a result of the Proposed Project. The Proposed Project would not be increasing electricity or natural gas consumption, and thus would not result in the inefficient, wasteful, or unnecessary consumption of energy.

The Proposed Project’s gasoline fuel consumption during the construction period is estimated to be 81,379 gallons of fuel, which would increase the annual construction-related gasoline fuel use in the MDAB-portion of the county by 0.80 percent during the time that project construction takes place. As such, project construction would have a nominal effect on local and regional energy supplies, especially over the long-term. Additionally, construction equipment fleet turnover and increasingly stringent state and federal regulations on engine efficiency combined with state regulations limiting engine idling times and require recycling of construction debris, would further reduce the amount of transportation fuel demand during project construction. For these reasons, it is expected that construction fuel consumption associated with the Proposed Project would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature.

For these reasons, this impact would be less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant. The Proposed Project would be designed in a manner that is consistent with relevant energy conservation plans designed to encourage development that results in the efficient use of energy resources. Relevant energy conservation plans specific to San Bernardino County include the City General Plan, specifically the Conservation Element. An overarching goal of this documents is to encourage energy conservation activities throughout the City, to be achieved through several policy provisions. Specifically, Policy CO 8.4 which aims to minimize energy consumption attributable to transportation within the County. All development in San Bernardino County, including the Proposed Project, is required to adhere to all City-adopted policy provisions, including those contained in the General Plan Conservation Element. The City ensures all provisions of these policy documents are incorporated into projects and their permits through development review and applications of conditions of approval as applicable. The Proposed Project would not conflict or obstruct any local or state plans for renewable energy or energy efficiency.

For these reasons, this impact would be less than significant.

Mitigation Measures

None.

Energy Impact Conclusions

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

7. GEOLOGY AND SOILS

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

Check if project is located in the Geologic Hazards or Paleontologic Resources Overlay District):

Environmental Setting

The Joshua Tree Plan Area is located approximately 76 miles east of San Bernardino, and 32 miles north and east of Palm Springs within the Desert Region of the County. The Desert Region comprises that area of the County that is to the north and east of the San Bernardino and San Gabriel Mountains. This region, which by far encompasses the largest area of the County, includes most of the Mojave Desert and a portion of the Basin and Range geomorphic provinces of California. The Desert Region is characterized by mountain ranges and hills of moderate relief that are partially buried and separated by broad alluviated basins. The mountain ranges and hills are chiefly comprised of Mesozoic age granitic rocks and Mesozoic to Precambrian age metamorphic rocks. Cenozoic age sedimentary and volcanic rocks and landforms are common throughout the Desert Region (County of San Bernardino 2007a).

Impact Analysis

a) *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*

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

Less Than Significant. The Pinto Mountain Fault and its associated Alquist Priolo Earthquake Fault Zone bisect the project site just south of the intersection of Sunburst Avenue and Crestview Drive (County of San Bernardino 2005; CDC 2019). Although the Proposed Project would directly overlay an Alquist-Priolo Earthquake Fault Zone, the proposed pedestrian and bicycle trails would not exacerbate the risks to trail users because trail users are transitory. Furthermore, the Proposed Project does not include structures that would encourage large densities of users to gather. As such impacts would be less than significant.

- ii. *Strong seismic ground shaking?*

Less Than Significant. As previously stated, the project site is bisected by the Pinto Mountain Fault. In the event of an earthquake strong ground shaking is expected to occur on the project site. The Proposed Project does not propose the construction of habitable structures and therefore would not expose people or structures to strong seismic ground shaking greater than what currently exists. Trail design and construction would comply with current building codes and standards which would reduce the risk of loss, injury, or death resulting from strong ground-shaking. Impacts would be less than significant.

- iii. *Seismic related ground failure, including liquefaction?*

No Impact. Liquefaction is a phenomenon where water-saturated granular soil loses shear strength during strong ground shaking produced by earthquakes. The loss of soil strength occurs when cyclic pore water pressure increases below the groundwater surface. Potential hazards due to liquefaction include the loss of bearing strength beneath structures, possibly causing foundation failure and/or significant settlements. Liquefaction susceptible sites are limited to areas of the County underlain by loose, unconsolidated granular soils, and shallow groundwater, typically 50 feet or less below ground surface (County of San Bernardino 2007a). The project site is not located within the liquefaction potential zone. The Proposed Project is not anticipated to directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving seismic related ground failure including liquefaction. No impact would occur.

- iv. *Landslides?*

No Impact. Landslides are less of a concern in the Desert Region of the County due in part to the low annual precipitation levels. However, with relatively steep slopes in some of the desert mountain ranges there is the potential for landslides to occur, particularly during an earthquake (County of San Bernardino 2005). The project area is relatively flat with the exception of Bartlett Mountains located to the west of the project site near the middle portion of the trail alignment. The proposed trails are not located directly adjacent to Bartlett Mountains. As such, the project site is not at risk for landslides. No impact would occur.

- b) *Result in substantial soil erosion or the loss of topsoil?*

Less Than Significant. Implementation of the Proposed Project would require ground-disturbing activities, such as grading, that could potentially result in soil erosion or loss of topsoil. Construction of the Proposed Project would be required to comply with the Construction General Permit, either through a waiver or through preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). Best Management Practices (BMPs)

are included as part of the SWPPP prepared for the Proposed Project and would be implemented to manage erosion and the loss of topsoil during construction-related activities. The Proposed Project's grading plan would also ensure that the proposed earthwork is designed to avoid soil erosion. Impacts as a result of soil erosion or the loss of topsoil would be less than significant.

c) *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?*

Less Than Significant. Please refer to the responses to questions 7a, above. No habitable structures would be constructed as part of the Proposed Project. Impacts related to an unstable geological unit or soil resulting in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse would be less than significant.

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

Less Than Significant. Expansive soils are soils with a significant amount of clay particles that have the ability to give up water (shrink) or take on water (swell). Fine-grained soils, such as silts and clays, may contain variable amounts of expansive clay minerals. When these soils swell, the change in volume exerts significant pressures on loads that are placed on them. This shrink/swell movement can adversely affect building foundations, often causing them to crack or shift, with resulting damage to the buildings they support.

Field observations of the soils within the various features connoted a heavy presence of sands, with some smaller elements of silt. As such, soils on the project site do not exhibit the characteristics of expansive soils. Impacts would be less than significant.

e) *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

No Impact. The Proposed Project does not include septic tanks or alternative waste water disposal systems. No impact would occur.

f) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Less Than Significant with Mitigation Incorporated. A paleontological resources assessment was completed for the Proposed Project (ECORP 2019f). The assessment's scope included a paleontological records search through the Natural History Museum of Los Angeles County's Vertebrate Paleontology Section (LACM), a pedestrian survey, a literature search, correspondence with a former curator at the San Bernardino County Museum, a review of geological maps and County of San Bernardino regulations, and impact analyses.

The project site is located within the Transverse Ranges Geomorphic Province of California. Generally speaking, the lower parts of the project alignment are washes with Quaternary alluvium (Qa) of late Pleistocene and Holocene age. The higher parts are alluvial fans of older Quaternary alluvium (Qoa) of Pleistocene age. The higher alluvial fans are dissected by younger Quaternary drainages. Beginning at SR-62, the alignment is in Qa up to the middle of section 25. It crosses a narrow ridge of Qoa, and returns to Qa. Within the last quarter mile of section 25, it passes into Qoa and this continues to the middle of section 24. There it passes into a narrow channel of Qa and returns to Qoa for the remainder of the alignment (ECORP 2019f).

The records search revealed that the nearest LACM locality is approximately ten miles to the north. This locality produced Pleistocene fossils of horse (*Equus*), small and large camels (*Taupolama* and *Camelops*), as well as bison (*Bison*). Two more localities are near Campbell Hill northeast of Twentynine Palms. Horse fossils were found there. LACM recommended that excavations in the project area should be monitored to recover any fossil remains discovered.

No fossils were detected during the pedestrian survey. Surficial sediments observed during the field survey were all alluvium and colluvium. No paleosols were detected. No calcium carbonate lumps that might indicate nearby fossil soils were observed. A 3-foot pit at was dug in sediments mapped as Qoa and no fossils or fossil soils were detected (ECORP 2019f).

Based on the project location in sediments listed as Pleistocene age and the results of the records search indicating fossils have been recorded in the project vicinity in Pleistocene age sediments, the Proposed Project may encounter paleontological resources during ground disturbing construction activities. The County of San Bernardino Conservation Element lists several programs for Cultural/Paleontological Resources including requiring paleontological monitoring of projects located in areas of known fossil occurrences and that would have rough grading with cuts greater than three feet. Excavation associated with the Proposed Project is not anticipated to exceed three feet. However, if excavation exceeds three feet potentially significant impacts to unique paleontological resources or sites or unique geologic features may occur if disturbed during construction activities. With the implementation of Mitigation Measure GEO-1 impacts would be less than significant.

Mitigation Measures

- GEO-1** If project excavations exceed three feet in depth in sediments mapped as Quaternary alluvium (Qoa) then a Paleontological Resource Impact Management Plan shall be prepared by a qualified paleontologist. This plan shall adhere to the guidelines of the Society of Vertebrate Paleontology and shall include monitoring and sampling of sediments to test for microvertebrate fossils.

Geology and Soils Impact Conclusions

With implementation of the above listed measures, less than significant impacts would occur.

8. GREENHOUSE GAS EMISSIONS

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

Background

Greenhouse Gas (GHG) emissions are released as byproducts of fossil fuel combustion, waste disposal, energy use, land use changes, and other human activities. This release of gases, such as carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and chlorofluorocarbons, creates a blanket around the earth that allows light to pass through but traps heat at the surface, preventing its escape into space. While this is a naturally occurring process known as the greenhouse effect, human activities have accelerated the generation of GHGs beyond natural levels. The overabundance of GHGs in the atmosphere has led to an unexpected warming of the earth and has the potential to severely impact the earth's climate system.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH₄ traps over 25 times more heat per molecule than CO₂, and N₂O absorbs 298 times more heat per molecule than CO₂. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO₂e). Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted.

The local air quality agency regulating the MDAB is the MDAQMD, the regional air pollution control officer for the basin. Under CEQA, the MDAQMD is an expert commenting agency on air quality and related matters within its jurisdiction or impacting on its jurisdiction. The MDAQMD provides guidelines to assessing the significance of project specific GHG emissions and offers both daily and annual thresholds for GHG emissions

In September of 2011, the County of San Bernardino adopted the San Bernardino GHG Reduction Plan (GHG Plan) based on the premise that the County and the community it represents are uniquely capable of addressing emissions associated with sources under the County's jurisdiction and that the County's emission reduction efforts should coordinate with the state strategies of reducing emissions in order to reduce emissions in an efficient and cost-effective manner. The GHG Reduction Plan also including an interim screening level numeric "bright-line" threshold of 3,000 metric tons of CO₂e annually for project operations and construction.

Impact Analysis

a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Less Than Significant.

Construction

Construction-related activities that would generate GHGs include worker commute trips, haul trucks carrying supplies and materials to and from the project site, and off-road construction equipment (e.g., dozers, loaders, excavators). Projected GHG emissions from construction have been quantified and amortized over the life of the Proposed Project. Table 8-1 illustrates the specific construction-generated GHG emissions that would result from construction of the Project.

Table 8-1. Construction-Related Greenhouse Gas Emissions	
Emissions Source	CO₂e (Metric Tons/ Year)
Year 2020	826
County of San Bernardino GHG Reduction Plan	3,000
Exceed Threshold?	No

Source: CalEEMod version 2016.3.2. Refer to Appendix A for Model Data Outputs.

Notes: Emission estimates account for the grading of 84,480 square feet as well as the removal of 1,016 tons of debris.

As shown in Table 8-1, Proposed Project construction would result in the generation of approximately 826 metric tons of CO₂e over the course of construction. Proposed Project emissions do not exceed the County of San Bernardino Greenhouse Gas Emissions Reduction Plan screening threshold of 3,000 metric tons of CO₂e per year. Therefore, the impact is less than significant.

Operations

In terms of operational GHG emissions, the Proposed Project involves the construction of two miles of bike lanes and paths. The Proposed Project would not include the provision of new permanent stationary or mobile sources of emissions, and therefore, by its very nature, would not generate quantifiable GHG emissions from project operations. The Proposed Project does not propose any buildings and therefore no permanent source or stationary source emissions. Furthermore, the Proposed Project could be expected to reduce vehicle trips in the area due to its ability meet the identified need for a non-vehicular trail for the local residents in the community. This potential reduction of automobile trips attributable to the Proposed Project would reduce the amount of daily CO₂e emissions currently being generated. Thus, there would be no operational impact related to air quality.

Impacts would be less than significant.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant. The County of San Bernardino GHG Reduction Plan establishes a GHG emissions reduction target for the year 2020 that is 15 percent below year 2007 emission levels. The GHG Plan is consistent with AB 32 and sets the County on a path to achieve a more substantial long-term reduction in the post-2020 period. Achieving this level of emissions would ensure that the contribution to GHG emissions from activities covered by the GHG Reduction Plan would not be cumulatively considerable. As described in Chapter 4.0 of the GHG Plan, all new development under the jurisdiction of the County is required to quantify a project’s GHG emissions and adopt feasible mitigation to reduce project emissions below a level of significance.

The County GHG Reduction Plan identifies a review standard of 3,000 metric tons of CO₂e per year to identify and mitigate project emissions. Projects estimated to generated less than 3,000 metric tons of CO₂e per year are considered less than significant. For projects exceeding 3,000 metric tons of CO₂e per year, the developer may use the GHG Reduction Plan Screening Tables in the GHG Reduction Plan as a tool to assist with calculating GHG reduction measures and the determination of a significance finding. Projects that garner 100 or more points on the Screening Tables are considered less than significant. (The point system was devised to ensure project compliance with the reduction measures in the GHG Plan such that the GHG emissions from new development, when considered together with those from existing development, would allow the County to meet its year 2020 target and support longer-term reductions in GHG emissions beyond year 2020.)

As shown in Table 8-1, above, the total amount of proposed GHG emissions would be 826 metric tons of CO₂e per year, which does not exceed the County's 3,000 metric tons of CO₂e per year screening threshold. Therefore, the Proposed Project would not conflict with the San Bernardino Greenhouse Gas Emissions Reduction Plan. No impact would occur.

For these reasons, this impact would be less than significant.

Mitigation Measures

None.

Greenhouse Gas Emissions Impact Conclusions

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

9. HAZARDS AND HAZARDOUS MATERIALS

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

Environmental Setting

The County of San Bernardino has an Emergency Operations Plan (EOP), which addresses the County's response to emergencies associated with natural disasters or human-caused emergencies. The EOP describes the methods for conducting emergency operations, the process for rendering mutual aid, the emergency services of governmental agencies, how resources are mobilized, how the public will be informed, and the process to ensure continuity of government during an emergency or disaster.

Impact Analysis

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant. The construction phase of the Proposed Project may include the transport, storage, and short-term use of petroleum-based fuels, lubricants, pesticides, and other similar materials. The transport of hazardous materials by truck is regulated by federal safety standards under the jurisdiction of the U.S. Department of Transportation. Additionally, the implementation of Best Management Practices (BMPs)

stipulating proper storage of hazardous materials and vehicle refueling would be implemented during construction as part of the Stormwater Pollution Prevention Plan (SWPPP). All transport, handling, use, and disposal of substances such as petroleum products paints, and solvents related to the operation and maintenance of the Proposed Project would comply with all Federal, State, and local laws regulating management and use of hazardous materials. Therefore, the use of such material would not create a significant hazard to the public and impacts would be less than significant.

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?

Less Than Significant. On-site storage and/or use of large quantities of hazardous materials capable of affecting soil and groundwater are not proposed. However, during construction some hazardous materials, such as diesel fuel, would be used. A SWPPP, listing BMPs to prevent construction pollutants and products from violating any water quality standard or waste discharge requirements would be prepared for the Proposed Project. The potential risk associated with accidental discharge during use and storage of equipment-related hazardous materials would be low since the handling of such materials would be addressed through the implementation of BMPs. With the implementation of BMPs, the Proposed Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous material. Impacts would be less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant. Joshua Tree Elementary School is located at the southwest corner of Sunburst Avenue and Calle Los Amigos, adjacent to the proposed trail. As stated in the responses to questions a) and b), construction of the Proposed Project may include the transport, storage, and short-term use of petroleum-based fuels, lubricants, and other similar materials. All transport, handling, use, and disposal of hazardous materials related to the operation and maintenance of the Proposed Project would comply with all Federal, State, and local laws regulating management and use of hazardous materials. Furthermore, BMPs would be implemented as part of the Proposed Project's SWPPP to prevent the release of construction pollutants and/or products. Also, as discussed in Section 3, Air Quality, emissions from construction activities would be below significant thresholds. Impacts would be less than significant.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. A search of the Department of Toxic Substances Control's (DTSC) Hazardous Waste and Substance List (Cortese List) and EnviroStor online database and the State Water Resources Control Board's (SWRCB) GeoTracker online database was conducted for the project area (DTSC 2019a and 2019b; SWRCB 2019). The results of the searches indicate that there are no known hazardous materials sites on the project site. No impact would occur.

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

No Impact. Yucca Valley Airport is the closest airport to the project site located five miles to the west. The project site is not within the Airport Comprehensive Land Use Plan for the Yucca Valley Airport. Given the distance between the airport and the project site there would be no safety hazards for people residing or working in the project area. No impact would occur.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The Proposed Project is a pedestrian/bicycle trail. The trail is proposed along the ROW of Sunburst Avenue. The trail would not conflict with access and/or circulation of emergency vehicles in response to an emergency and/or evacuation. No impact would occur.

g) Expose people or structure, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. The project site is not located within Cal Fire State Responsibility Area (Cal Fire 2019). The project site is also not identified to be in a fire hazard zone within the Safety Background Report of the County's General Plan (County of San Bernardino 2005). No impact would occur.

Mitigation Measures

None.

Hazards and Hazardous Materials Impact Conclusions

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

10. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would?				
I. Result in substantial erosion or siltation on – or off-site;			X	
II. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on – or off-site;			X	
III. Create or contribute runoff water which would exceed the capacity of the existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff; or			X	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X

Environmental Setting

The project area is located at approximately 2,741 feet above mean sea level (AMSL) to 2,693 feet AMSL in the Mojave Desert Subregion of the Desert Floristic Province (Baldwin et. al. 2012). Several seasonal drainages cross the project area. Vegetation within the project area consists primarily of creosote, bursage, and Joshua tree. The channels crossing the project area correspond with historically recorded drainages from USGS topographic mapping and National Wetland Inventory mapping. Where larger drainages cross Sunburst Avenue, there are low-flow crossings present along with some armoring to prevent roadway erosion. Many of the smaller drainage features do not cross Sunburst Avenue but only occur along the east side, collecting runoff mostly from along the road.

The project area consists of a developed roadway and dirt shoulder, along with a buffer of approximately 50 feet into the surrounding area. The road shoulder is compacted and a small berm is present along the edge of the shoulder. In some locations, dirt roads run parallel along Sunburst Avenue. Surrounding land uses are primarily undeveloped areas along with a few rural residential lots. Development is more prevalent in the southern portions of the DA, adjacent to SR-62.

The project area is composed of disturbed areas, developed areas, and disturbed Mojave creosote bush scrub. Some portions of the project area were disturbed from unauthorized trash dumping and off-highway vehicle (OHV) use. No special-status habitats or vegetation communities were observed within or adjacent to the project area.

Impact Analysis

a) *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?*

Less Than Significant. During construction of the Proposed Project water quality impacts could occur without proper controls. Soils loosened during grading, as well as spills of fluids or fuels from vehicles and equipment, if mobilized or transported offsite in overland flow, have the potential to degrade water quality. Because the area of disturbance affected by construction of the Proposed Project exceeds one acre, the Proposed Project would be subject to the requirements of the statewide National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (General Permit). Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling or excavation. During construction, to comply with the General Permit the County would be required to implement a SWPPP, which would include BMPs to prevent construction pollutants and products from violating any water quality standards or any waste discharge requirements. During operations the Proposed Project would not involve uses that would result in waste discharges that could degrade surface or groundwater quality. Impacts would be less than significant.

b) *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. The Proposed Project would rehabilitate an existing bicycle trail and construct a new bicycle trail on both the east and west sides of Sunburst Avenue. The proposed trails would be paved and be located entirely within the existing ROW of Sunburst Avenue. The addition of these trails is not anticipated to result in a substantial increase of impervious surface area to the overall watershed of where the Proposed Project is located that could affect groundwater recharge. Stormwater runoff from the trail would be directed to adjacent areas that contain pervious surfaces where groundwater recharge would continue to occur. As such, impacts would be less than significant.

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 the existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff?*

Less Than Significant.

- I. The Proposed Project would not significantly alter the existing drainage pattern of the project site. However, erosion and siltation can occur as a result of ground disturbing activities during construction. With implementation of BMPs as part of the Proposed Project's SWPPP impacts would be less than significant.
- II. Development of the Proposed Project would result in the creation of paved trails which would result in an increase of impervious surfaces in the project site compared to existing conditions. The addition of impervious surfaces to an area can affect the rate or amount of surface runoff. However, the proposed improvements are not anticipated to result in a substantial increase of impervious surface

area in the project area. Areas adjacent to the paved trail would continue to have permeable surfaces (natural ground cover), where stormwater runoff would be directed to allowing runoff to infiltrate similar to existing conditions. As such, the flooding potential of the project area is not anticipated to be exacerbated due to the implementation of the Proposed Project. Impacts would be less than significant.

- III. As previously mentioned, the Proposed Project would implement BMPs as part of the project's SWPPP during construction to minimize water quality impacts. During project operations BMPs would also be implemented as part of the Proposed Project Water Quality Management Plan (WQMP). Impacts would be less than significant.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. The project site is bisected by two creeks; Yucca Creek and Joshua Tree Creek. The two creeks and associated 100-year flood hazard areas are identified in the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Map Number 06071C8145J. The construction of paved bicycle/pedestrian trails are not anticipated to impede flood flows. As such, no impact to flood hazards are anticipated.

The project site is located approximately 90 mile inland from the Pacific Ocean. Additionally, no major surface water bodies are located in the project vicinity. Due to the distance to the ocean and large bodies of water, the project site would not be subject to inundation from seiches or tsunamis. No impact would occur.

Mitigation Measures

None.

Hydrology and Water Quality Impact Conclusions

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

11. LAND USE AND PLANNING

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

Environmental Setting

The project site is located along Sunburst Street from SR-62 to Calle Los Amigos (approximately 2 miles). This segment of Sunburst Avenue is a paved two-lane street with unpaved road shoulders. There is an existing paved Class I bike path located along the east side of Sunburst Avenue from SR-62 north to Oleander Avenue (approximately 0.5 miles). The project site is generally located within an area characterized by rural residential development interspersed with undeveloped properties and a few commercial and institutional land uses (Sportsman’s Park, Joshua Tree Park & Recreation District). The Proposed Project would be located entirely within the ROW of Sunburst Avenue. As identified by the County of San Bernardino Land Use Plan, land use zoning districts located immediately adjacent to the trail alignment include: General Commercial (CG-SCp); Multiple Residential (RM); Institutional (IN); Single Residential (RS); and Rural Living (RL).

Impact Analysis

a) *Physically divide an established community?*

No Impact. The Proposed Project is the rehabilitation of an existing Class I bike path and the construction of new Class II bike lanes within the existing ROW of Sunburst Avenue. The Proposed Project would provide a benefit to the community by providing pedestrian/bicycle trails giving area residents and visitors an alternative mode of transportation. No impact would occur.

b) *Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

No Impact. The Proposed Project is the development of recreational pedestrian and bicycle trails along Sunburst Avenue in the community of Joshua Tree. The Proposed Project is consistent with the Joshua Tree Community Plan (County of San Bernardino 2007b). Specifically, the Proposed Project would be consistent with, but not limited to, the following goals and policies of the Joshua Tree Community Plan:

- **Goal JT/OS 1.** Develop parks, recreation facilities and a non-motorized trail system to meet the recreational needs of the community.
- **Goal JT/CI 2.4.** Where feasible, establish and coordinate a separate system of bikeway and pedestrian trails connecting residential areas, recreational facilities, activity centers, downtown Joshua Tree and the entrance to the National Park.
- **Goal JT/CI 2.6.** Provide bicycle lanes adjacent to Twentynine Palms Highway and throughout the planning area, with safe crossing areas.

- **Goal JT/CI 4.** Promote alternative modes of transportation.

The Proposed Project would result in beneficial impacts to the community of Joshua Tree.

Mitigation Measures

None.

Land Use and Planning Impact Conclusions

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

12. MINERAL RESOURCES

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

Environmental Setting

There are no active production mines in the community of Joshua Tree (County of San Bernardino 2006a).

Impact Analysis

a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

No Impact. There are no active mines within or adjacent to the project site. Furthermore, there are no properties with a Resource Conservation land use designation adjacent to the project site. The Proposed Project would be located entirely within the ROW of Sunburst Avenue. As such, the Proposed Project would not result in the loss of availability of a known mineral resource. No impact would occur.

b) *Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*

No Impact. There are no mineral resources identified in the project area by the Joshua Tree Community Plan or the County General Plan. As previously mentioned, the Proposed Project would be located entirely within the ROW of Sunburst Avenue. No impact to locally important mineral resource recovery sites would occur.

Mitigation Measures

None.

Mineral Resources Impact Conclusions

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

13. NOISE

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

Environmental Setting

A noise impact assessment was completed for the Proposed Project (ECORP Consulting 2019e). This technical report is provided in Appendix E and summarized below.

Noise Fundamentals

Noise is generally defined as sound that is loud, disagreeable, or unexpected. The selection of a proper noise descriptor for a specific source is dependent on the spatial and temporal distribution, duration, and fluctuation of the noise. The noise descriptors most often encountered when dealing with traffic, community, and environmental noise include the average hourly noise level (in L_{eq}) and the average daily noise levels/community noise equivalent level (in $L_{dn}/CNEL$).

Noise can be generated by a number of sources, including mobile sources, such as automobiles, trucks, and airplanes, and stationary sources, such as construction sites, machinery, and industrial operations. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. Mobile transportation sources, such as highways, and hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of 3.0 decibels (dBA) per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance from the source. Noise generated by stationary sources typically attenuates at a rate of approximately 6.0 to 7.5 dBA per doubling of distance from the source.

Sound levels can be reduced by placing barriers between the noise source and the receiver. In general, barriers contribute to decreasing noise levels only when the structure breaks the “line of sight” between the source and the receiver. Buildings, concrete walls, and berms can all act as effective noise barriers. Wooden fences or broad areas of dense foliage can also reduce noise but are less effective than solid barriers.

Sensitive Noise Receptors

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of

individuals to both interior and exterior noise levels. Additional land uses such as parks, historic sites, cemeteries, and recreation areas are considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses.

The project site traverses' numerous noise-sensitive land uses including multiple single-family residences and Joshua Tree Elementary School. The nearest noise-sensitive receptor to the project site is a single-family residence located 25 feet to the west near the intersection of Sunburst Avenue and Commercial Street. However, there are numerous other residences existing directly adjacent to the project site.

Existing Ambient Noise Environment

The noise environment in the project area is impacted by various noise sources. Mobile sources of noise, especially cars and trucks traveling on Sunburst Avenue and SR 62, are the most common and significant sources of noise in the project area. Other sources of noise are typical activities associated with residential neighborhoods (barking dogs, lawnmowers, neighborhood automobile movements). The nearest active airport to the project site is the Twentynine Palms Strategic Expeditionary Landing Field located approximately 12.5 miles northeast of the project site.

Impact Analysis

- a) *Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Less Than Significant. Construction noise associated with the Proposed Project would be temporary and would vary depending on the nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for on-site construction activities as well as construction vehicle traffic on area roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., demolition, grading, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 to 4 minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). During construction, exterior noise levels could negatively affect sensitive receptors in the vicinity of the construction site.

Table 13-1 indicates the anticipated noise levels of construction equipment. The average noise levels presented in Table 13-1 are based on the quantity, type, and acoustical use factor for each type of equipment that is anticipated to be used.

Table 13-1. Maximum Noise Levels Generated by Construction Equipment		
Type of Equipment	Maximum Noise (L _{max}) at 50 Feet (dBA)	Maximum 8-Hour Noise (L _{eq}) at 50 Feet (dBA)
Crane	80.6	72.6
Dozer	81.7	77.7
Excavator	80.7	76.7
Generator	80.6	77.6

Type of Equipment	Maximum Noise (L_{max}) at 50 Feet (dBA)	Maximum 8-Hour Noise (L_{eq}) at 50 Feet (dBA)
Grader	85.0	81.0
Paver	77.2	74.2
Roller	80.0	73.0
Tractor	84.0	80.0
Dump Truck	76.5	72.5
Concrete Pump Truck	81.4	74.4
Welder	74.0	70.0

Source: Federal Highway Administration, Roadway Construction Noise Model (FHWA-HEP-05-054), dated December 2008.

The nearest noise-sensitive land user to the project site is a single-family residence located 25 feet to the west. Due to the close proximity, the residence will experience noise levels in excess of what is presented in Table 13-1.

The County does not promulgate numeric thresholds pertaining to the noise associated with construction but instead limits the time that construction can take place. Specifically, Section 83.01.080 expects noise from temporary construction, maintenance, repair or demolition activities between 7 a.m. and 7 p.m., except Sundays and Federal holidays. It is typical to regulate construction noise in this manner since construction noise is temporary, short term, intermittent in nature, and would cease on completion of the Project. Therefore, noise generated during construction activities, as long as conducted within the permitted hours, would not exceed County noise standards.

The Proposed Project consists of rehabilitation and construction of a bike path and lane. People using the trail for recreational activities (e.g., walking, running, cycling) would be the main source of noise for the Proposed Project. However, the trail users will be continuously moving along the trail and would not be concentrated at the point closest to the sensitive receptors. Furthermore, noise generated by people using the trail would be lower than ambient noise levels currently experienced from existing vehicular traffic, so nearby sensitive receptors will not notice a change in noise levels.

This impact is less than significant.

b) Generation of excessive groundborne vibration of groundborne noise levels?

Less Than Significant. Excessive groundborne vibration impacts result from continuously occurring vibration levels. Increases in groundborne vibration levels attributable to the Proposed Project would be primarily associated with short-term construction-related activities. Construction on the project site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks (pile drivers are not necessary for the completion of the Proposed Project). Vibration decreases rapidly with distance and it is acknowledged that construction activities would occur throughout the project site and would not be concentrated at the point closest to sensitive receptors. Groundborne vibration levels associated with construction equipment are summarized in Table 13-2.

Table 13-2. Representative Vibration Source Levels for Construction Equipment	
Equipment Type	Peak Particle Velocity at 25 Feet (inches per second)
Large Bulldozer	0.089
Caisson Drilling	0.089
Rock Breaker	0.089
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozer/Tractor	0.003

Source: Caltrans 2004

The nearest structure to the project site is approximately 25 feet away. Based on the vibration levels presented in Table 13-2, groundborne vibration generated by construction equipment would not be anticipated to exceed 0.089 in/sec PPV at 25 feet. The County’s Development Code Section 83.01.090 prohibits the operation of any device that creates vibration greater than or equal to 0.2. inches per second measured beyond the property line. The use of any construction equipment listed above would not result in a groundborne vibration velocity level above County standards. The predicted vibration levels at the nearest structures would not exceed County standards.

Operation of the Proposed Project would not include the use of any stationary equipment that would result in excessive vibration levels. Therefore, the Proposed Project would result in no groundborne vibration impacts during operations.

This impact is less than significant.

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?

Less Than Significant. The Project site is located approximately 12.5 miles northeast of the Twentynine Palms Strategic Expeditionary Landing Field. It is not within two miles of a public or private airport. Implementation of the Proposed Project would not affect airport operations nor result in increased exposure of noise-sensitive receptors to aircraft noise. No impact.

Mitigation Measures

None.

Noise Impact Conclusions

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

14. POPULATION AND HOUSING

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

Environmental Setting

The Proposed Project is located in the unincorporated community of Joshua Tree, San Bernardino County, California. Joshua Tree is located approximately 76 miles east of San Bernardino and 32 miles northeast of Palm Springs. Joshua Tree has a population of 7,414 (US Census Bureau 2019). The rural desert character of the Joshua Tree community is defined in part by the geographic location, desert environment and low-density residential development. Residential development within the Joshua Tree community is characterized by large lots, the varied placement of homes, and open spaces around the homes. The character of the community is further defined by the natural environment and by the limited commercial and industrial uses.

Impact Analysis

a) *Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

No Impact. The Proposed Project is the rehabilitation of an existing Class I bike path and the construction of new Class II bike lanes. The Proposed Project would not result in new residential uses or result in a permanent increase in employment opportunities in the area capable of inducing population growth. No impact would occur.

b) *Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

No Impact. Currently, there are no homes located within the project site. The project site is located entirely within the ROW of Sunburst Avenue. As such, the Proposed Project would not displace housing. No impact would occur.

Mitigation Measures

None.

Population and Housing Impact Conclusions

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

15. PUBLIC SERVICES

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

Environmental Setting

Fire protection services within the project area are provided by the San Bernardino County Fire Department (SBCFD), which provides administration and support for the fire districts and other services such as hazardous materials regulation, dispatch communication, and disaster preparedness. The closest fire station to the project site is SBCFD Fire Station 36 located approximately 0.5 mile to the southwest along Park Boulevard.

The San Bernardino County Sheriff's Department provides police protection services to the project area. The closest sheriff's station is the Morongo Basin Station located approximately two miles to the east along SR-62.

The Morongo Basin Unified School District serves Joshua Tree and the surrounding communities. The closest school to the project site is Joshua Tree Elementary School located at the southwest corner of Sunburst Avenue and Calle Los Amigos.

Impact Analysis

a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection, Police protection, Schools, Recreation/Parks, Other public facilities?*

Less Than Significant. The Proposed Project is the rehabilitation of an existing Class I bike path and the construction of new Class II bike lanes. The proposed improvements would result in approximately two miles of bicycle trails along Sunburst Avenue. Operation of the Proposed Project could result in an occasional demand for emergency response from the fire and/or police departments. However, such demand is not expected to exceed the current capacity of the fire and police departments. The Proposed Project would not create the need for new or expanded fire or police facilities and/or services. Impacts would be less than significant.

The Proposed Project is not anticipated to induce population growth; therefore, it would not create additional demand for schools, parks, or other public facilities. No impact would occur.

Mitigation Measures

None.

Public Services Impact Conclusions

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

16. RECREATION

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

Environmental Setting

The community of Joshua Tree is located adjacent to large sections of Bureau of Land Management (BLM) lands and Joshua Tree National Park. Approximately 17 percent of the land within the Joshua Tree Community Plan boundary is BLM land. Joshua Tree National Park provides opportunities for camping, rock climbing, nature viewing, etc. and is a major tourist attraction for the region, attracting approximately 1.2 million visitors per year. Section Six is a 605 acre area designated as Resource Conservation (RC) that is managed by County Service Area 20. Section Six provides recreational day use opportunities for locals and visitors. The Joshua Tree Community Plan Area currently does not contain any County-maintained trails that are specifically designated as recreational facilities (County of San Bernardino 2007b).

Impact Analysis

a) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

Less Than Significant. The Proposed Project would not result in the increase of the region’s population because it does not include housing and would not result in the creation of a significant number of permanent jobs. Therefore, no direct increase in the use of existing neighborhood and regional parks or other recreational facilities would occur. The proposed trail could would improve pedestrian and bicycle user access to Sportsman Park, located adjacent to the Proposed Project. However, the Proposed Project is not anticipated to substantially increase the use of the park. Impacts would be less than significant.

b) *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

Less Than Significant With Mitigation Incorporated. The Proposed Project is the development of recreational pedestrian and bicycle trails along Sunburst Avenue in the community of Joshua Tree. Adverse physical effects from the construction of the Proposed Project are discussed in this Initial Study. Where potentially significant impacts have been identified, mitigation measures are proposed to reduce impacts to a less than significant level.

Mitigation Measures

Mitigation measures required for this Project are provided in the appropriate sections of this Initial Study.

Recreation Impact Conclusions

With implementation of the mitigation measures included as part of this IS/MND, no significant impacts would occur.

17. TRANSPORTATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?				X
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? – NOT APPLICABLE				N/A
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?				X
d) Result in inadequate emergency access?				X

Environmental Setting

The Joshua Tree Community Plan area is located along the southern edge of San Bernardino between the United States Marine Corps Air Ground Combat Center and Joshua Tree National Park. Twentynine Palms Highway (SR-62) provides access from both the Yucca Valley to the west and Twentynine Palms to the east. Old Woman Springs Road (SR-247) is located in close proximity to the western boundary of the plan area and provides access to Lucerne Valley. The vast majority of travel trips in the plan area are made by automobile, using the existing network of state highways and County roads. The Joshua Tree Community Plan Area lacks appropriate pedestrian and bicycle improvements. Residents have expressed a desire to improve the pedestrian and bicycle circulation system within their community to appeal to both locals and visitors and to create a pedestrian friendly downtown (County of San Bernardino 2007b).

Impact Analysis

a) *Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

No Impact. The Proposed Project is the development of recreational pedestrian and bicycle trails along Sunburst Avenue in the community of Joshua Tree. The Proposed Project is consistent with the Joshua Tree Community Plan (County of San Bernardino 2007b). Specifically, the Proposed Project would be consistent with, but not limited to, the following goals and policies of the Joshua Tree Community Plan:

- **Goal JT/OS 1.** Develop parks, recreation facilities and a non-motorized trail system to meet the recreational needs of the community.
- **Goal JT/CI 2.4.** Where feasible, establish and coordinate a separate system of bikeway and pedestrian trails connecting residential areas, recreational facilities, activity centers, downtown Joshua Tree and the entrance to the National Park.
- **Goal JT/CI 2.6.** Provide bicycle lanes adjacent to Twentynine Palms Highway and throughout the planning area, with safe crossing areas.

- **Goal JT/CI 4.** Promote alternative modes of transportation.

The Proposed Project would result in beneficial impacts to the community of Joshua Tree.

b) *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

Not Applicable. CEQA Guidelines section 15064.3, subdivision (b) details the use of vehicle miles traveled (VMT) to assess the significance of transportation impacts. As detailed in CEQA Guidelines section 15064.3, subdivision (c), a lead agency may elect to be governed by the provisions of this section immediately. Beginning on July 1, 2020, the provisions of this section shall apply statewide. As of the preparation of this document (May 2019), VMT analysis has not been adopted by the County of San Bernardino and this question does not apply to the Proposed Project.

c) *Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?*

No Impact. The final design of the Proposed Project would be completed in accordance with the guidance and requirements of the Caltrans Highway Design Manual, Chapter 1000, "Bikeway Planning and Design." No impact would occur.

d) *Result in inadequate emergency access?*

No Impact. The Proposed Project has been designed to meet County development standards and would be located entirely within the ROW of Sunburst Avenue. Project plans would also be reviewed by the County's fire and sheriff's departments to ensure adequate emergency access is provided. No impact would occur.

Mitigation Measures

None.

Transportation Impact Conclusions

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

18. TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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:		X		
a) Listed or eligible for listing in California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or				X
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X		

Regulatory Setting

Effective July 1, 2015, Assembly Bill 52 (AB 52) amended CEQA to require that: 1) a lead agency provide notice to those California Native American tribes that requested notice of projects proposed by the lead agency; and 2) for any tribe that responded to the notice within 30 days of receipt with a request for consultation, the lead agency must consult with the tribe. Topics that may be addressed during consultation include Tribal Cultural Resources (TCRs), the potential significance of project impacts, type of environmental document that should be prepared, and possible mitigation measures and project alternatives.

Pursuant to AB 52, Section 21073 of the Public Resources Code defines California Native American tribes as “a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of the Statutes of 2004.” This includes both federally and non-federally recognized tribes. Section 21074(a) of the Public Resource Code defines TCRs for the purpose of CEQA as:

1. Sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
 - a. included or determined to be eligible for inclusion in the California Register of Historical Resources; and/or
 - b. included in a local register of historical resources as defined in subdivision (k) of Section 5020.1; and/or
 - c. 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this

paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Because criteria a and b also meet the definition of a historical resource under CEQA, a TCR may also require additional consideration as a historical resource. TCRs may or may not exhibit archaeological, cultural, or physical indicators.

Recognizing that California tribes are experts in their tribal cultural resources and heritage, AB 52 requires that CEQA lead agencies provide tribes that requested notification an opportunity to consult at the commencement of the CEQA process to identify TCRs. Furthermore, because a significant effect on a TCR is considered a significant impact on the environment under CEQA, consultation is used to develop appropriate avoidance, impact minimization, and mitigation measures.

Summary of AB 52 Consultation

On December 7, 2018, the County of San Bernardino initiated environmental review under CEQA for the Proposed Project. On December 7, 2018, the County of San Bernardino sent project notification letters to the following California Native American tribes, which had previously submitted general consultation request letters pursuant to 21080.3.1(d) of the Public Resources Code:

- San Manuel Band of Mission Indians
- Twentynine Palms Band of Mission Indians

Each recipient was provided a brief description of the Proposed Project and its location, the lead agency contact information, and a notification that the tribe has 30 days to request consultation. The 30-day response period concluded on January 10, 2019.

As a result of the initial notification letters, the County of San Bernardino received the following responses:

- Twenty-Nine Palms Band of Mission Indians: December 13, 2018; Tribe requested copies of cultural resources report prior to concluding consultation.
- San Manuel Band of Mission Indians: January 10, 2019; Tribe requested copies of cultural resources report prior to concluding consultation.

The County acknowledged receipt of correspondence from the Tribes and indicated consultation under AB52 would be held open pending the Tribes' review of the cultural resources report when completed.

The completed cultural resources report was transmitted to the consulting tribes on June 17, 2019. On July 3, 2019, Twenty-Nine Palms Band of Mission Indians responded with a recommendation that a Cultural Sensitivity Training take place prior to ground disturbance. This measure has been added to the Tribal Mitigation Measures as TCR-5. Consultation closed with Twenty-Nine Palms Band of Mission Indians on July 11, 2019.

San Manuel Band of Mission Indians requested incidental finds measures be added to the Proposed Project. Specific measure language was agreed upon on July 15, 2019 (Mitigation Measures TCR-1 through TCR-4 below) and consultation was closed.

Impact Analysis

- 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)?*

No Impact. A cultural resources records search was completed at the SCCIC at California State University, Fullerton in March 2019 (ECORP 2019d). No CRHR eligible resources were identified within the project site. As such, no impact would occur.

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?

Less Than Significant With Mitigation Incorporated.

No TCRs were identified within the project area during AB 52 consultation. The Proposed Project would not result in significant impacts to known TCRs. However, as a result of AB 52 consultation the Tribes identified a potential for the discovery of unknown TCRs during construction, which may result in a significant impact if such resources are found and affected. Impacts to unknown TCRs would be less than significant with the implementation of Mitigation Measures TCR-1 through TCR-5.

Mitigation Measures

TCR-1 Appropriate consulting Tribe(s) shall be contacted, as detailed in CUL-1, of any pre-contact cultural resources discovered during project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input within 48 hours with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2018), a cultural resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with consulting Tribe(s), and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents consulting Tribe(s) for the remainder of the project, should Tribe(s) elect to place a monitor on-site at the Tribe's cost.

As necessary, and in accordance with Project-Specific consultations conducted with the NAHC and various Tribal entities in association with AB 52, SB 18, and/or any other legal guidelines relating to Native American consultations, the specific language noted in CUL-1 and CUL-2 may change to reflect Project-Specific needs and requirements.

TCR-2 If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to CUL-2 and State Health and Safety Code §7050.5 and that code shall be enforced for the duration of the project.

TCR-3 Only the NAHC Designated MLD Tribal representative shall make all future decisions regarding the treatment of human remains of Native American origin within the response times outlined below. The MLD shall determine the disposition and treatment of Native American human remains and any associated grave goods following Native American Graves Protection and Repatriation Act (NAGPRA) protocols, and what constitutes "appropriate dignity" as that term is used in the applicable statutes and in the Tribe's customs and traditions.

The MLD or his/her designee shall complete an inspection and provide written recommendations to the DPW and the landowner (if different than the DPW) within forty-eight (48) hours of being granted access to the site. If the descendant does not make recommendations within 48 hours, the landowner shall re-inter the remains in a secure area of the property where there will be no further disturbance. Should the landowner not accept the descendant's recommendations, either the owner or the MLD may request mediation by NAHC. According to the California Health and

Safety Code, six (6) or more human burials at one (1) location constitute a cemetery (Section 8100), and willful disturbance of human remains in a cemetery is a felony (Section 7052).

TCR-4 Any and all archaeological/cultural documents as related to documented tribal cultural resources created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be disseminated to appropriate consulting Tribe(s) in the form of an un-redacted report (containing DPR forms). The Lead Agency and/or applicant shall, in good faith, consult with the appropriate Tribe(s) until construction completion of the project and completion of any measures imposed to protect resources.

TCR-5 Prior to ground disturbing activities, Cultural Sensitivity Training shall be provided by approved Twenty-Nine Palms Band of Mission Indians approved Tribal Historic Preservation Office (THPO) staff. This training shall be provided to all workers involved in land disturbing activities. Please contact the THPO at (760) 775-3259 or by email at TNPConsultation@29palmsbomi-nsn.gov.

Tribal Cultural Resources Conclusions

With implementation of the above listed measures, less than significant impacts would occur.

19. UTILITIES AND SERVICE SYSTEMS

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

Environmental Setting

In the County, provision and maintenance of infrastructure facilities and public services is coordinated through Special Districts and County Service Areas (CSAs). In the Joshua Tree community there are several CSAs that provide public services for streetlights, road, parks and recreation, fire protection. Water service in the project area is provided by the Joshua Basin Water District. Wastewater in Joshua Tree is primarily handled via on-site treatment (septic systems). Waste Management of the Desert hauls solid waste in the community of Joshua Tree. Solid waste is disposed of at Landers Sanitary Landfill.

Impact Analysis

a) *Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*

No Impact. The Proposed Project does not include the construction or operation of facilities that would require a permanent water source, electric power, natural gas or telecommunication facilities. The Proposed Project would also not generate wastewater. As such no impact would occur.

b) *Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*

No Impact. The Proposed Project does not include facilities that would require a water source. The proposed trails do not require irrigation nor a potable water resource. No impact would occur.

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?*

No Impact. The Proposed Project does not include facilities that generate wastewater. As such, no impact would occur.

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?*

No Impact. The Proposed Project would generate minor amounts of waste during construction, which would be disposed of at the Landers Sanitary Landfill. As of July 2016, Landers Sanitary Landfill has a remaining capacity of 11,148,100 cubic yards (CalRecycle 2019). Operation of the trail would be limited to transitory use by pedestrians/bicyclists for recreation. Operation of the Proposed Project would not generate solid waste; therefore, no new demand on the waste disposal capacity is expected to occur. No impact would occur.

e) *Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

No Impact. All solid waste generated during project construction would be disposed of by the contractor at an approved site. The contractor is required to comply with federal, State, and local statutes and regulations regarding solid waste. No impact would occur.

Mitigation Measures

None.

Utilities and Service Systems Impact Conclusions

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

20. WILDFIRE

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

Environmental Setting

The project site is not located on land within a State Responsibility Area (SRA) (CAL FIRE 2019). The project area is identified as a *Moderate Fuel Rank/Fire Threat* by the County of San Bernardino Safety Background Report (County of San Bernardino 2005). The project site is generally located within an area characterized by rural residential development interspersed with undeveloped properties and a few commercial and institutional land uses (Sportsman's Park, Joshua Tree Park & Recreation District). Within the boundaries of the project site there are disturbed areas that contain little to no vegetation.

Impact Analysis

a) *Substantially impair an adopted emergency response plan or emergency evacuation plan?*

No Impact. The Proposed Project is a pedestrian/bicycle trail. The proposed improvements would be located along the existing ROW of Sunburst Avenue. The developed trail would not conflict with access and/or circulation of emergency vehicles in response to an emergency and/or evacuation. No impact is anticipated.

b) *Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

Less Than Significant. The project site is not located on land within a SRA (CAL FIRE 2019). The project area is identified as a *Moderate Fuel Rank/Fire Threat* by the County of San Bernardino Safety Background Report (County of San Bernardino 2005). As previously mentioned, the Proposed Project would be located within the ROW of Sunburst Avenue in the community of Joshua Tree. The Proposed Project is located in an area characterized by mostly residential development with commercial and public uses. Because of the existing

developed nature of the project area it is not anticipated that the Proposed Project would increase the risk related to wildland fires. Impacts would be less than significant.

c) *Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

No Impact. As previously stated, the project site is not located in or near a SRA. The Proposed Project would develop pedestrian/bicycle trails along Sunburst Avenue. All improvements are located within the ROW of Sunburst Avenue. The Proposed Project would not require the installation or maintenance of infrastructure that would exacerbate fire risk resulting in temporary or ongoing impacts to the environment. No impact would occur.

d) *Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

No Impact. The topography of the project site is relatively flat; however, a small mountain range (Bartlett Mountains) is located just west of the central portion of the project site. The Proposed Project would not require substantial grading. Due to the relatively flat characteristics of the project site, no impacts are anticipated due to downslope or downstream flooding or landslides.

Mitigation Measures

None.

Wildfire Impact Conclusions

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

21. MANDATORY FINDINGS OF SIGNIFICANCE

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

a) *Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

Less Than Significant With Mitigation. Impacts to biological and cultural resources are discussed in the respective sections of this Initial Study. Impacts would be less than significant with Mitigation Measures BIO-1 through BIO-3, CUL-1 and CUL-2, and TCR-1 through TCR-5.

b) *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

Less Than Significant With Mitigation. Impacts from the Proposed Project would not be cumulatively considerable with the implementation of the mitigation measures listed in this Initial Study.

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

Less Than Significant With Mitigation. Direct and indirect impacts to human beings would be less than significant with the implementation of mitigation measures listed in this Initial Study.

SECTION 5 – SUMMARY OF MITIGATION MEASURES

The following mitigation measures were identified to reduce impacts to less than significant:

BIOLOGICAL RESOURCES:

BIO-1 Pre-construction Survey for Burrowing Owl: A pre-construction survey for burrowing owl shall be conducted within project site and adjacent areas prior to the start of construction. The survey shall follow the methods described in the CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). The pre-construction burrowing owl survey shall be conducted between 30 and 14 days prior to initial ground disturbance (grading, grubbing, and construction). If burrowing owls or their sign (e.g., burrows with whitewash, pellets, bones of prey items) are identified during the pre-construction survey, then a second pre-construction survey will be conducted no more than 24 hours prior to initial ground disturbance. If burrowing owls and/or suitable burrowing owl burrows with sign (e.g., whitewash, pellets, feathers, prey remains) are identified on the project site during the survey(s) and impacts to those features are unavoidable, consultation with the CDFW shall be conducted and the methods described in the CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFW 2012) for avoidance and/or passive relocation shall be followed.

BIO-2 Pre-construction Survey for Desert Tortoise: A pre-construction survey for desert tortoise shall be conducted prior to the start of ground-disturbing activities in accordance with the protocol methods outlined in *Preparing for Any Action that May Occur within the Range of the Mojave Desert Tortoise* (USFWS 2018). If desert tortoises or desert tortoise sign (e.g., burrows, carcasses, scat) are observed on or immediately adjacent to the project site, then coordination with USFWS and CDFW will need to occur and avoidance or minimization measures, such as biological monitoring and no disturbance buffers around burrows, may need to be implemented. If project-related impacts to the desert tortoise are found to be unavoidable and significant following the pre-construction survey, then the necessary state and federal permits will need to be obtained from CDFW and USFWS prior to the start of project activities.

BIO-3 Pre-construction Nesting Bird Survey: If construction or other project activities are scheduled to occur during the bird breeding season (typically February 1 through August 31 for raptors and March 15 through August 31 for the majority of migratory bird species), a pre-construction nesting bird survey shall be conducted by a qualified avian biologist to ensure that active bird nests, including those for the Le Conte's thrasher, will not be disturbed or destroyed. The survey shall be completed no more than three days prior to initial ground disturbance and may be combined with the second burrowing owl survey identified in Mitigation Measure BIO-1 if a second pre-construction burrowing owl survey is conducted on site. The nesting bird survey shall include the project site and adjacent areas where project activities have the potential to affect active nests, either directly or indirectly due to construction activity or noise. If an active nest is identified, the biologist shall establish an appropriately-sized disturbance limit buffer around the nest using flagging or staking. Construction activities shall not occur within any disturbance limit buffer zones until the nest is deemed inactive by the qualified biologist.

CULTURAL RESOURCES:

CUL-1 Should unanticipated or inadvertent surface and/or subsurface prehistoric or historic archaeological resources, built environment, and/or tribal cultural resources, appear to be encountered during construction or maintenance activity associated with this project, then all work must halt within a 100-

foot radius of the discovery until a qualified professional can evaluate the discovery. If the finds are archaeological or historic in nature, then an archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and/or historic archaeology have evaluated the significance of the find. This archaeologist shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following shall apply, depending on the nature of the find:

- A. If the professional archaeologist determines that the find *does not* represent a cultural resource, then work may resume immediately and no agency notifications are required.
- B. If the professional archaeologist determines that the find *does* represent a cultural resource from any time or cultural affiliation then, depending on the nature of the discovery, appropriate treatment measures shall be developed.
- C. If the find represents a Native American or potentially Native American resource that does not include human remains, which may or may not include a Tribal Cultural Resource, then the archaeologist shall consult with appropriate Tribe[s] on whether or not the resource represents either a Tribal Cultural Resource or a Historical Resource, or both, and, if so, consult on appropriate treatment measures. Preservation in place is the preferred treatment, if feasible. Work cannot resume within the no-work radius until the County, through consultation as appropriate, determines that the site either: 1) is not a Tribal Cultural Resource or Historical Resource; or 2) that the treatment measures for the Tribal Cultural Resource or Historical Resource have been completed.

CUL-2 If the find during construction or maintenance activity includes human remains, or remains that are potentially human, the archaeologist shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the San Bernardino County Coroner (per §7050.5 of the Health and Safety Code). The Coroner's Office may be contacted at Coroner's Division, County of San Bernardino, 175 South Lena Road, San Bernardino, California 92415 or by calling 909.387.2978. The provisions of §7050.5 of the California Health and Safety Code, §5097.98 of the California Public Resources Code, and Assembly Bill 2641 will be implemented. If the Coroner determines the remains are Native American, the Coroner will notify the NAHC by telephone within 24 hours. The NAHC will then immediately notify the person it believes to be the Most Likely Descendant (MLD) of the remains (§5097.98 of the Public Resources Code). The designated MLD will have 48 hours, from the time access to the property is granted, to make recommendations concerning treatment of the remains, in accordance with California Health and Safety Code §7050.5 and CEQA Guidelines §15064.5(e). If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§5097.94 of the Public Resources Code). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§5097.98 of the Public Resources Code). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the County, through consultation as appropriate, determines that the treatment measures have been completed to its satisfaction.

If the Coroner determines that the remains are not of Native American origin and that the remains are from the historic-era, the County Coroner will make a recommendation as to the disposition of the

remains. Construction may continue once compliance with all relevant sections of the California Health and Safety Code has been addressed and an authorization to proceed is issued by the County Coroner.

GEOLOGY AND SOILS:

GEO-1 If project excavations exceed three feet in depth in sediments mapped as Quaternary alluvium (Qoa) then a Paleontological Resource Impact Management Plan shall be prepared by a qualified paleontologist. This plan shall adhere to the guidelines of the Society of Vertebrate Paleontology and shall include monitoring and sampling of sediments to test for microvertebrate fossils.

TRIBAL CULTURAL RESOURCES:

TCR-1 Appropriate consulting Tribe(s) shall be contacted, as detailed in CUL-1, of any pre-contact cultural resources discovered during project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input within 48 hours with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2018), a cultural resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with consulting Tribe(s), and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents consulting Tribe(s) for the remainder of the project, should Tribe(s) elect to place a monitor on-site at the Tribe's cost.

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TCR-4 Any and all archaeological/cultural documents as related to documented tribal cultural resources created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be

disseminated to appropriate consulting Tribe(s) in the form of an un-redacted report (containing DPR forms). The Lead Agency and/or applicant shall, in good faith, consult with the appropriate Tribe(s) until construction completion of the project and completion of any measures imposed to protect resources.

TCR-5 Prior to ground disturbing activities, Cultural Sensitivity Training shall be provided by approved Twenty-Nine Palms Band of Mission Indians approved Tribal Historic Preservation Office (THPO) staff. This training shall be provided to all workers involved in land disturbing activities. Please contact the THPO at (760) 775-3259 or by email at TNPConsultation@29palmsbomi-nsn.gov.

SECTION 6 - REFERENCES

[CARB] California Air Resources Board

- 2014 Technical Valuation of the Greenhouse Gas Emission Reduction Quantification for Association of Monterey Bay Area Governments' SB 375 Sustainable Communities Strategy. <http://www.arb.ca.gov/cc/sb375/sb375.htm>.

[CDC] California Department of Conservation

- 2019 EQ Zapp: California Earthquake Hazards Zone Application. Available at <https://www.conservation.ca.gov/cgs/geohazards/eq-zapp>. Accessed on June 12, 2019.

[CAL FIRE] California Department of Forestry and Fire Protection

- 2019 State Responsibility Area Viewer. Available at <http://www.fire.ca.gov/firepreventionfee/srviewer>. Accessed on June 13, 2019.

[Caltrans] California Department of Transportation

2004. *Transportation- and Construction-Induced Vibration Guidance Manual*.

- 2019 California Scenic Highway Mapping System. Available at: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/. Accessed on June 5, 2019.

CalRecycle

- 2019 SWIS Facility Detail Landers Sanitary Landfill (36-AA-0057). Available at <https://www2.calrecycle.ca.gov/SWFacilities/Directory/36-AA-0057/Detail>. Accessed June 13, 2019.

[DTSC] Department of Toxic Substances Control

- 2019a DTSC's Hazardous Waste and Substances Site List – Site Cleanup (Cortese List). Available at <https://dtsc.ca.gov/dtscs-cortese-list/>. Accessed on June 10, 2019.
- 2019b EnviroStor. Available at <https://www.envirostor.dtsc.ca.gov/public/>. Accessed on June 10, 2019.

[ECDMS] California Energy Consumption Data Management System

- 2018 Electricity and Natural Gas Consumption by County. Available at <http://www.ecdms.energy.ca.gov/>.

[ECORP] ECORP Consulting, Inc.

- 2019a Sunburst Avenue Bike Trail Project Air Quality & Greenhouse Gas Emissions Assessment. June.
- 2019b Biological Technical Report Sunburst Avenue Bike Trail San Bernardino County, California. June.
- 2019c Aquatic Resources Delineation for the Sunburst Avenue Class I Bike Path and Class II Bike Lanes Project. June.
- 2019d Cultural Resources Inventory and Evaluation Sunburst Avenue Bike Trail Project in the Community of Joshua Tree San Bernardino County, California. June.
- 2019e Noise Impact Assessment for the Sunburst Avenue Bike Trail Project. June.
- 2019f Paleontological Resources Assessment for Sunburst Avenue Class I Bike Path and Class II Bike Lanes Project, Joshua Tree, San Bernardino County. June.

[FEMA] Federal Emergency Management Agency

- 2016 Flood Insurance Rate Map, Map Number 06071C8145J. Map revised September 2, 2016.

FHWA (Federal Highway Administration).

- 2008. *Roadway Construction Noise Model*.
- 2011. *Effective Noise Control During Nighttime Construction*.
http://ops.fhwa.dot.gov/wz/workshops/accessible/schexnayder_paper.htm.

San Bernardino, County of

- 2005 Safety Background Report. June 15, 2005.
- 2006a Conservation Background Report. February 1, 2006.
- 2006b Circulation and Infrastructure Background Report. February 21, 2006.
- 2007a County of San Bernardino 2006 General Plan Program, Final Environmental Impact Report and Appendices. SCH #2005101038. February 2007.
- 2007b Joshua Tree Community Plan. Adopted March 13, 2007. Effective April 12, 2007.

[SWRCB] State Water Resources Control Board

- 2019 GeoTracker. Available at <https://geotracker.waterboards.ca.gov/>. Accessed on June 10, 2019.

US Census Bureau

2019 QuickFacts, Joshua Tree CDP, California. Available at <https://www.census.gov/quickfacts/fact/table/joshuatreecdpcalifornia/PST045218>. Accessed on June 11, 2019.

SECTION 7 – APPENDICES

Appendix A – Air Quality and Greenhouse Gas Assessment

Appendix B – Biological Technical Report

Appendix C – Aquatic Resources Delineation

Appendix D – Cultural Resources Inventory and Evaluation

Appendix E – Noise Impact Assessment

Appendix F – Site Plan