



INITIAL STUDY

Tentative Tract Map No. 37733-Obsidian Drive Development Project

Prepared for:

**City of Riverside Community & Economic Development Department
Planning Division**

Prepared by:

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June 2021

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CITY OF RIVERSIDE

COMMUNITY & ECONOMIC DEVELOPMENT DEPARTMENT

PLANNING DIVISION

DRAFT MITIGATED NEGATIVE DECLARATION

WARD: 4

1. **Case Numbers:** PR-2021-000733 (TM/PRD/DR/VR) and P20-0523 (Agricultural Preserve Cancellation)
2. **Project Title:** **Obsidian Drive Development Project**
3. **Lead Agency:** City of Riverside
Community & Economic Development Department
Planning Division
3900 Main Street, 3rd Floor
Riverside, California 92522
4. **Contact Person:** Judy Eguez, Associate Planner
JEguez@riversideca.gov (951) 826-3969
5. **Project Location:** The project site is located at 18875 Lurin Avenue, situated south of Lurin Avenue and northeast of Obsidian Drive, in the City of Riverside. The Project would be developed on Assessor's Parcel Number (APN) 266-100-025, a 10.06-gross acre, undeveloped/vacant site. See **Figure 1: Regional Location** and **Figure 2: Project Location**.
6. **Project Applicant/Project Sponsor's Name and Address:**
Nolan C. Leggio
Lurin Land, LLC
10621 Civic Center Drive
Rancho Cucamonga, California 91730
NLeggio@DiversifiedPacific.com
7. **General Plan Designation:** Low Density Residential (LDR)
8. **Zoning:** OSP-RA-SP Residential Agriculture and Specific Plan (Orangecrest) Overlay Zones
9. **Description of Project:** The proposed Tentative Tract No. 37733-Obsidian Drive Development Project (herein referred to as the "proposed Project" or "Project") consists of the following entitlements to facilitate the establishment of an 41-unit Planned Residential Development: (1) Tentative Tract Map (TM 37733) approval to subdivide 9.08 (of the 10.06-gross acre site) acres into 41 single-family residential lots, 7 lettered lots for private streets and common open space; (2) Planned Residential Development for the establishment of detached single-family dwelling units, private streets, and common open space; (3) Variance to allow a reduced perimeter setback at lots 1 and 17 through 23 along Lurin Avenue; (4) Design Review of Project plans, and (5) Cancellation of Agricultural Preserve No. 3 and Williamson Act Contract on the Project site. See **Appendix A: Project Set Plans**.

Upon cancellation of the existing Agricultural Preserve No. 3 and Williamson Act contract, the site will revert to the R-1-13000 zone.

Figure 3: Project Site Plan shows the site plan for the proposed Project including the 41 lots where the single-family residential units would be developed. The minimum lot size would be 5,115 square feet, the maximum lot size would be 7,679 square feet, and the average lot size would be 5,826 square feet. The Project density would equate to 4.08 dwelling units per acre (du/ac). The Project site would also contain seven lettered lots that

would be occupied by non-residential uses. **Table A: Lettered Lot Details** shows the details on the seven lots including their size and their use.

Table A: Lettered Lot Details

Lot	Gross Area (square feet)	Use Description
A	3,255	Slope
B	1,526	Slope
C	20,574	Park/Open Space
D	36,289	Water Quality Management Plan Basin
E	9,366	Slope
F	4,043	Slope
G	1,515	Slope
Total Lot Area	76,568	

Source: Lurin Land LLC, Tentative Tract Map No. 3773, September 18, 2020.

The lettered lots on the Project site would total 76,568 square feet, which includes 20,574 square feet of park/open space within the Project site, which exceeds the minimum required common open space area. The parks/open space on the Project site would have amenities for public use including barbecue (BBQ) facilities, picnic tables, tot play area, rubberized walking path, turf play area, and a dog run.

All setback information for the Project site has been reviewed and compared to the City of Riverside Zoning Code and is consistent to applicable setback requirements for the R-1-13000 zoning designations under the Planned Residential Development (PRD) Permit. The proposed Project is requesting a Variance to the Perimeter setback, which requires 25 feet adjacent to a public street. The applicant of the proposed Project is also requesting modified setbacks for each of the lots as the proposed building setbacks for each lot are not consistent with the R-1-13000 Zone.

Precise construction schedule details are unknown at this time and would be dependent on the residential market; therefore, for the purpose of this IS/MND, construction is assumed to commence in 2021 with operations occurring as early as 2022. The various phases of construction include demolition, site preparation, grading, building construction, paving, and architectural coating. The site clearing and grading phases would disturb vegetation and surface soils. Preliminary estimates indicate approximately 19,238 cubic yards of soil cut and 37,084 cubic yards of soil fill. The overall soil disturbance would yield approximately 21,234 cubic yards of import.

The Project site will be landscaped with a variety of trees and plants that are consistent with the type of landscaping found in similar planned developments in the City of Riverside. The Project will include a variety of walls and fencing that are typical of residential developments in the City of Riverside. Walls up to 6 feet in height will be developed on the perimeter of the Project site while interior walls (5 feet, 6 inches in height) will be installed as applicable around lots within the site. Tan vinyl lot fencing (5 feet, 6 inches in height) will separate each of the 41 lots within the Project site. Tubular fencing (5 feet, 6 inches in height) will be installed on the perimeter of the basins within the Project site. **Appendix A: Project Set Plans** shows the landscape plans and fencing plans.

- 10. Surrounding Land Uses and Setting:** Once the Agricultural Preserve No. 3 and the Williamson Act contract is canceled, the site will revert to the R-1-13000 zone, which is consistent with zoning designations surrounding the site. **Table B: Project Site and Surrounding Land Use and Zoning** lists the surrounding land uses and zoning.

Table B: Project Site and Surrounding Land Use and Zoning

	Existing Land Use	General Plan Designation	Zoning Designation
Project Site	Majority is Vacant except large standing metal building in the northeast portion of the site	Low Density Residential (LDR)	OSP-RA-SP – Residential Agricultural and Specific Plan (Orangecrest) Overlay Zones
North	Large Lot Single-Family Residential	Low Density Residential (LDR)	R-1-13000-SP - Single Family Residential and Specific Plan (Orangecrest) Overlay Zones and RA-SP – Residential Agricultural and Specific Plan (Orangecrest) Overlay Zones
East	Vacant (Developed Pads and internal streets)	Low Density Residential (LDR)	R-1-13000-SP - Single Family Residential and Specific Plan (Orangecrest) Overlay Zones
South	Large Lot Single-Family Residential	Very Low Density Residential (VLDR)	R-1-1/2-SP – Single Family Residential and Specific Plan (Orangecrest) Overlay Zones and OSP-RA-SP – Residential Agricultural and Specific Plan (Orangecrest) Overlay Zones
West	Vacant	Public Park (P)	R-1-10500-SP - Single Family Residential and Specific Plan (Orangecrest) Overlay Zones

11. Other public agencies whose approval is required (e.g., permits, financial approval, or participation agreement.):

- City of Riverside
- Regional Water Quality Control Board (RWQCB), Santa Ana Region – National Pollutant Discharge Elimination System (NPDES) Construction General Permit
- RWQCB, Santa Ana Region – Storm Water Pollution Prevention Plan (SWPPP)
- RWQCB, Santa Ana Region – Section 401 Water Quality Certification-Waste Discharge Requirement
- South Coast Air Quality Management District (SCAQMD) – Dust Control Plan

12. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significant impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

The City of Riverside sent out notices to the following tribes to initiate consultation on February 20, 2020, pursuant to Assembly Bill 52:

- Agua Caliente Band of Cahuilla Indians
- Cahuilla Band of Indians
- Gabrieleño Band of Mission Indians – Kizh Nation
- Morongo Band of Mission Indians
- Pechanga Band of Luiseño Indians
- Rincon Band of Luiseño Indians
- Gabrielino-Tongva Tribe (San Gabriel Band of Mission Indians)
- San Manuel Band of Mission Indians
- Soboba Band of Luiseño Indians

The following California Native American tribes have requested consultation with the City of Riverside pursuant to Public Resources Code 21080.3.1:

- Agua Caliente Band of Cahuilla Indians
- Pechanga Band of Luiseño Indians
- Rincon Band of Luiseño Indians
- Soboba Band of Luiseño Indians

The results of these consultations will be discussed in Section 18 below.

13. Other Environmental Reviews Incorporated by Reference in this Review:

- a. City of Riverside General Plan 2025 (GP 2025)
- b. GP 2025 Final Program EIR (FPEIR)
- c. City of Riverside Housing Element Update 2014–2021
- d. Air Quality and Greenhouse Gas Impact Analysis
- e. Biological Resources Assessment/Habitat Assessment/Jurisdictional Delineation
- f. Cultural Resources Assessment
- g. Preliminary Geotechnical Investigation and Percolation Testing
- h. Phase 1 Environmental Site Assessment
- i. Preliminary Hydrology Report
- j. Water Quality Management Plan Report
- k. Noise and Vibration Impact Analysis
- l. Trip Generation Memorandum/Vehicle Miles Traveled Memorandum

14. Acronyms

AB.....	Assembly Bill
APN	Assessor's Parcel Number
AQMP	Air Quality Management Plan
Basin	South Coast Air Basin
BBQ	barbecue
BMP	Best Management Practice
BUOW	burrowing owl
CalEEMod.....	California Emissions Estimator Model
CAP.....	Climate Action Plan
CBC	California Building Code
CCR	California Code of Regulations
CEQA.....	California Environmental Quality Act
CFR.....	Code of Federal Regulations
CH ₄	methane
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO ₂	carbon dioxide
CO _{2e}	carbon dioxide equivalent
CWA	(Federal) Clean Water Act
DAMP	Drainage Area Management Plan
dBA	A-weighted decibel
DCV	Design Capture Volume
DMA	Drainage Management Area
EIR.....	Environmental Impact Report
EPA.....	Environmental Protection Agency
FHWA.....	Federal Highway Administration
FMMP	Farmland Mapping and Monitoring Program
FPEIR.....	GP 2025 Final Programmatic Environmental Impact Report
FTA.....	Federal Transit Authority
GHG.....	Greenhouse Gas
GP 2025	General Plan 2025
HCOC	Hydrologic Condition of Concern
HVAC	heating, ventilation, and air conditioning
IS/MND	Initial Study/Mitigated Negative Declaration
lbs/day.....	pounds per day
L _{eq}	equivalent continuous sound level

L _{max}	maximum noise level
LRA	Local Responsibility Area
LST	localized significance threshold
mgd	million gallons per day
MLD.....	Most Likely Descendant
MS4.....	Municipal Separate Storm Sewer Systems
MSHCP	Multiple Species Habitat Conservation Plan
MT	metric ton
N ₂ O	nitrous oxide
NAHC	Native American Heritage Commission
NOx.....	nitrogen oxides
NPDES.....	National Pollutant Discharge Elimination System
OSP	Orangetest Specific Plan Zone
PM _{2.5}	particulate matter less than 2.5 microns in size
PM ₁₀	particulate matter less than 10 microns in size
PPV	peak particle velocity
PRC.....	Public Resources Code
PRD.....	Planned Residential Development
RA.....	Residential Agriculture
REC.....	Recognized Environmental Condition
RMC.....	Riverside Municipal Code
ROW	right-of-way
RPD.....	Riverside Police Department
RPU.....	Riverside Public Utilities
RTP	Regional Transportation Plan
RUSD.....	Riverside Unified School District
RWQCB.....	Regional Water Quality Control Board
SB.....	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
SOx	sulfur oxide
SRA.....	State Responsibility Area
SWPPP	Storm Water Pollution Prevention Plan
UWMP	Urban Water Management Plan
VdB.....	vibration velocity decibels
VOC	volatile organic compound
WMWD	Western Municipal Water District
WRCRWA	Western Riverside County Regional Wastewater Authority
WQMP	Water Quality Management Plan

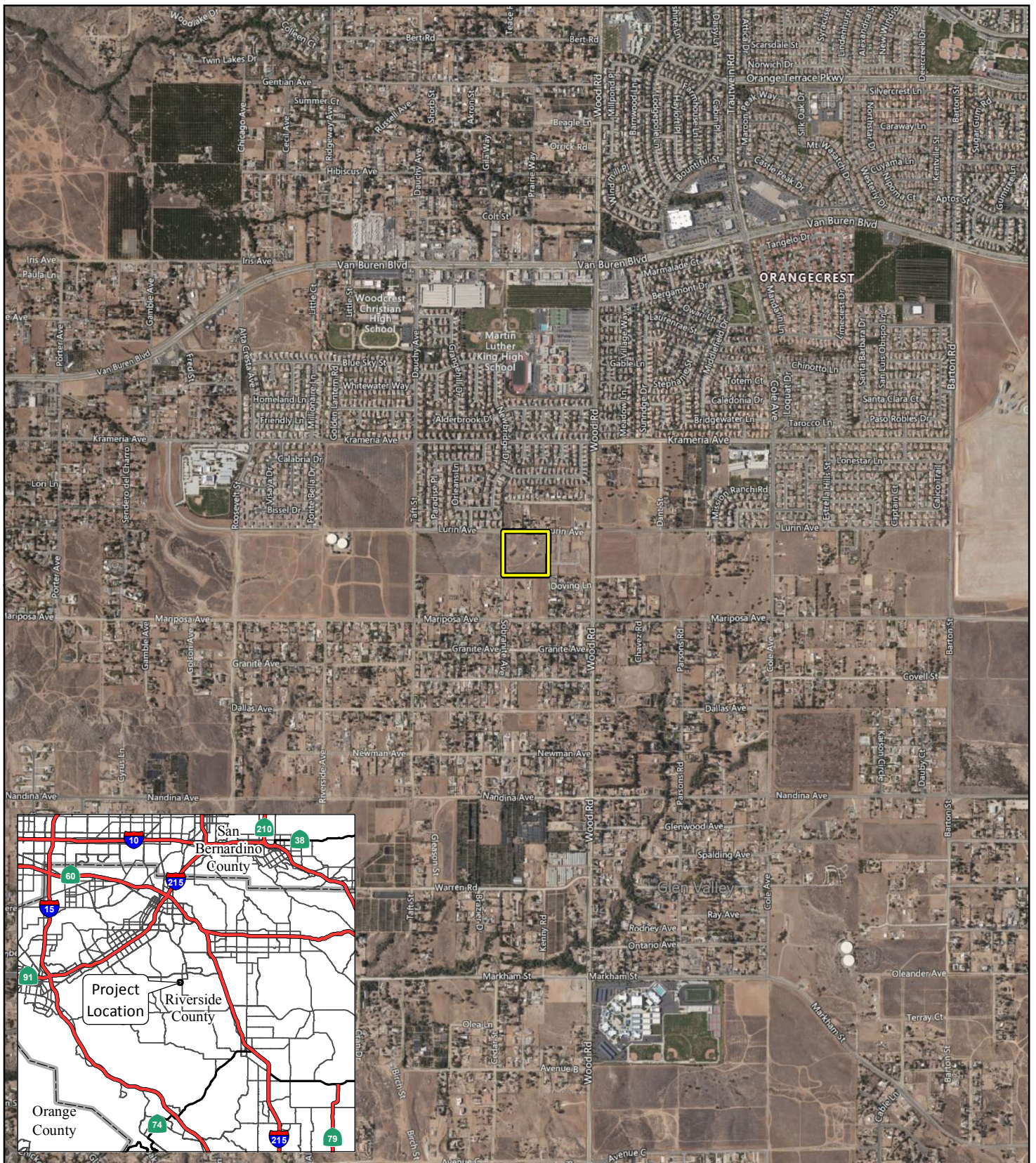


FIGURE 1

LSA

LEGEND

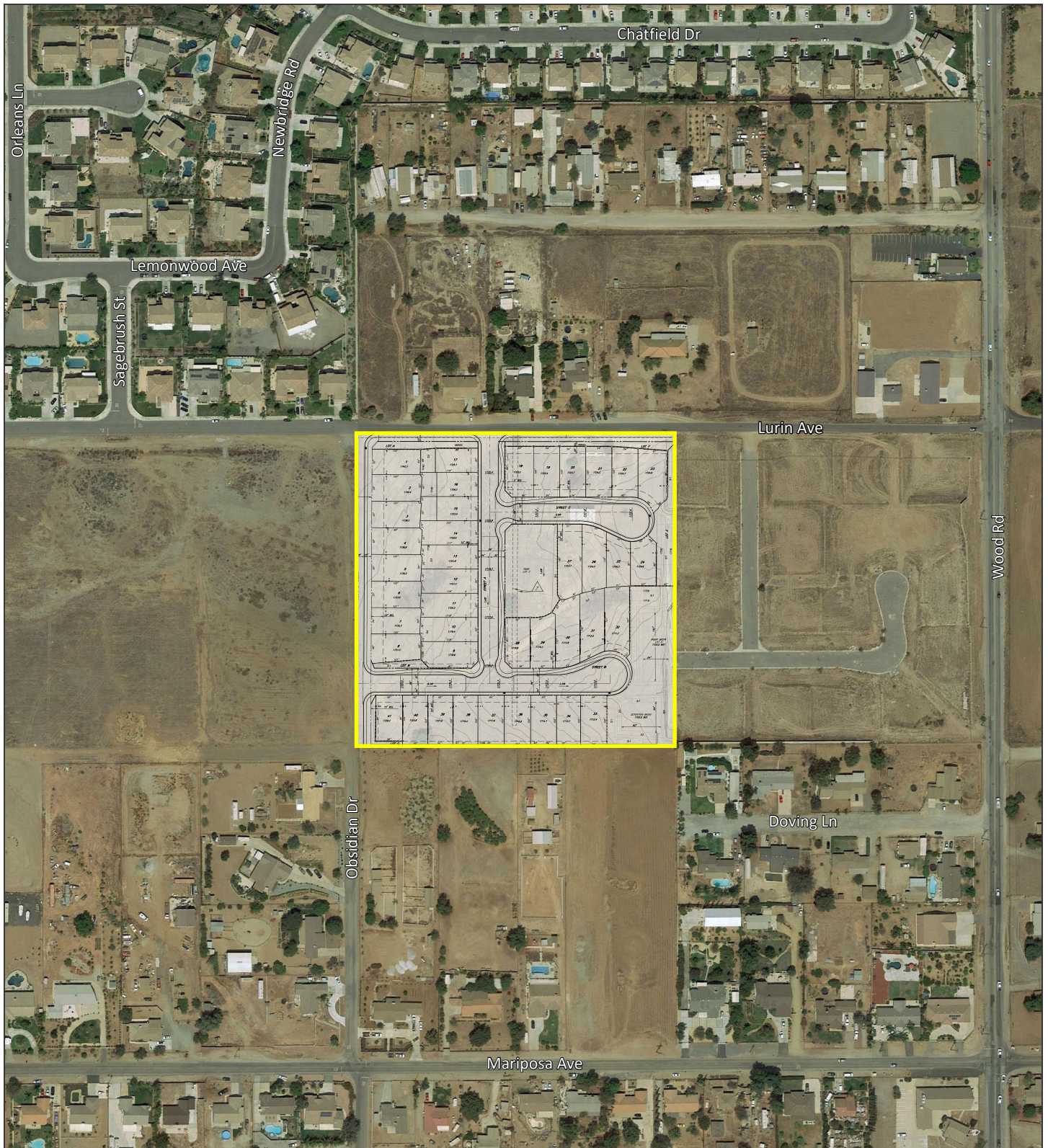
Project Location



0 1000 2000
FEET

SOURCE: Bing (2018)

Obsidian Development Project
Regional Location



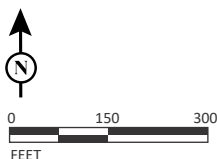
LSA

LEGEND



Project Site

FIGURE 2



SOURCE: Google Earth (2020), KWC Engineering

I:\DFD2001\G\ISMND\Project_Location.ai (10/29/2020)

Obsidian Development Project
Project Location

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

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

DETERMINATION

(To be completed by the Lead Agency)

On the basis of this initial evaluation, which reflects the independent judgment of the City of Riverside, it is recommended that:

The City of Riverside finds that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. ☐

The City of Riverside finds that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared. ☒

The City of Riverside finds that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. ☐

The City of Riverside finds that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. ☐

The City of Riverside finds that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier Environmental Impact Report (EIR) or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required. ☐

Signature _____ Date _____

Printed Name & Title _____ For City of Riverside



CITY OF
RIVERSIDE

COMMUNITY & ECONOMIC DEVELOPMENT DEPARTMENT

PLANNING DIVISION

ENVIRONMENTAL INITIAL STUDY

EVALUATION OF ENVIRONMENTAL IMPACTS

- 1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off site as well as on site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- 4) “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “Earlier Analyses,” as described in (5) below, may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other California Environmental Quality Act (CEQA) process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a. Earlier Analysis Used. Identify and state where they are available for review.
 - b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c. Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) The explanation of each issue should identify:
 - a. The significance criteria or threshold, if any, used to evaluate each question; and

- b. The mitigation measure identified, if any, to reduce the impact to less than significance.
- 9) Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, has consultation begun?

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code Section 21082.3(c) contains provisions specific to confidentiality.

1. AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:

- a. Have a substantial adverse effect on a scenic vista?

☐☐☒☐

1a. Response: (Source: General Plan 2025 Figure CCM-4 – Master Plan of Roadways, General Plan 2025 FPEIR Figure 5.1-1 – Scenic and Special Boulevards and Parkways, Table 5.1-A – Scenic and Special Boulevards, and Table 5.1-B – Scenic Parkways; and, Google Earth)

Less Than Significant Impact. The City's General Plan 2025 policies aim at balancing development interests with broader community preservation objectives. The General Plan identifies hillsides and ridgelines in the City, as well as the City's natural terrain and vegetation, as scenic vistas. For example, the La Sierra/Norco Hills, Sycamore Canyon Wilderness Park, Box Springs Park, and the peaks of Box Springs Mountain, Mt. Rubidoux, Arlington Mountain, Alessandro Heights and the La Sierra/Norco Hills provide scenic viewpoints of the City and the region. The Project does not constitute hillside development (on slopes greater than 15 percent) where special considerations of the City's natural terrain must be considered for impacts to scenic vistas. The site and immediate vicinity are not designated by the City's General Plan for the preservation of scenic views.

The Project site is located in the Orangecrest Specific Plan Area within a semi-urbanized area in the vicinity of existing residential development. The nearest scenic resources in proximity to the site are major hills and canyons (northwest of Roberts Road) located approximately 2.1 miles northwest of the Project site. Other features in proximity to the Project area include Lake Mathews approximately 5.5 miles to the southwest and the Temescal Mountains approximately 2.9 miles to the southwest. Distant views of the Santa Ana Mountains to the Project's southwest are also available. However, views from public areas in the vicinity of the Project site include single-family residential uses, large lot single-family residential uses, vacant land, and roads. The Project consists of the development of a single-family residential unit neighborhood, which is consistent with the current pattern of residential development in the Project area.

Views of the distant Temescal Mountains and Santa Ana Mountains exist as one looks southwest from the proposed Project site. However, low and mid-level views of these mountains are obstructed by existing residential structures, vegetation, and existing perimeter walls delineating property boundaries. The other scenic features described above are not visible from the Project site. Travelers on local roadways would experience changes in on-site scenery, but existing views to more distant geographic features would be maintained. Since the Project would be consistent with the residential nature of existing land uses in the area, views available to local residents would be maintained because single-family homes, ornamental landscape, and utility poles already obstruct distant scenic vistas viewable from the Project area. Due to the mass and height of the proposed residential buildings on the site, local or regional scenic vistas would still be visible, and the Project would not have significant adverse impacts on such areas. Through compliance with and implementation of General Plan/Specific Plan Policies and Zoning Code requirements, related to scenic vistas, direct, indirect and cumulative impacts to scenic vistas due to Project implementation are **less than significant impacts**. No mitigation is required.

- b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

☐☐☐☒

1b. Response: (Source: General Plan 2025 Figure CCM-4 – Master Plan of Roadways, General Plan 2025 FPEIR Figure 5.1-1 – Scenic and Special Boulevards, Parkways, Table 5.1-A – Scenic and Special Boulevards, Table 5.1-B – Scenic Parkways, the City's Urban Forest Tree Policy Manual, Title 20 – Cultural Resources and, Title 19 – Article V – Chapter 19.100 – Residential Zones - RC Zone; LSA, Cultural Resources Assessment Lurin Obsidian Tract Project, February 2020)

No Impact. The majority of the Project site is currently vacant except for a large standing metal building in the northeastern portion of the site. Remnants of a building foundation are also located near the northern boundary of the proposed Project. Adjacent uses include a residential neighborhood and single-family residential units on large lots to the north, a parcel of land that is being prepared for a residential development to the east, residential neighborhood and single-family residential units on large lots to the south, and vacant land to the west.

The *Cultural Resource Assessment* prepared for the Project in February 2020 concluded that no resources were documented on the site during survey reviews and fieldwork. There are no State scenic highways located near the Project site. As designated by the City's General Plan 2025, the proposed Project is not located along or within view of a scenic boulevard, parkway, or special boulevard. The nearest scenic parkway to the Project site is Van Buren Boulevard approximately 0.75 mile north of the Project site. The Project site cannot be seen from this roadway due to intervening structures, trees, and topography.

No designated scenic resources, State scenic highways, or locally designated scenic roadways are on or adjacent to the Project site. Therefore, the proposed Project would have **no impact** directly, indirectly, or cumulatively to scenic resource within a State scenic highway. No mitigation is warranted.

c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site the site and its surroundings? (Public views are those that are experienced from a publicly-accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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1c. Response: (Source: General Plan 2025, General Plan 2025 FPEIR, Zoning Code, Citywide Design and Sign Guidelines, Riverside Municipal Code Section 19.100 and 19.570)

Less Than Significant Impact. The Project site is located in a semi-urbanized portion of Riverside within the Orangecrest Specific Plan. The majority of the Project site is currently vacant except for a large standing metal building in the northeastern portion of the site. Remnants of a building foundation are also located near the northern boundary of the proposed Project. The proposed Project envisions the development of 41 single-family residential units, internal circulation (neighborhood roads), and a common use park, similar to the residential development to the northwest of the site. Implementation of the Project would continue the pattern of residential development within the Orangecrest Specific Plan and in accordance with the City's General Plan and Zoning designations of the Project site.

The Project applicant is requesting a Planned Residential Development (PRD) Permit pursuant to Section 19.780.010 of the Municipal Code to allow for flexibility and creativity in design of the single-family residential development planned for the Project site. The PRD Permit allows for different development density compared to the base zoning designations of the Project site. The Benchmark Density under the PRD Permit for R-1-13000 zoning designation is 4.8 dwelling units/acre. Overall, the proposed Project would be developed at a density of 4.08 dwelling units/acre, which would be consistent under the density standards of the PRD Permit. Pursuant to Section 19.100 of the Riverside Municipal Code, the single-family residential units that would be developed on the Project site would not exceed the base zone structure heights of 35 feet or two stories. The Project applicant is also requesting a Variance from the City of Riverside to reduce the perimeter setback from the right-of-way (ROW) line to the property/block wall at lots 1 and 17 through 23 along Lurin Avenue. The Project would be required to provide 20,500 square feet of common park space and would meet these development standard requirements through development of a common park totaling 20,574 square feet on the Project site. On-site water-efficient landscaping in common areas would be provided and continuously maintained as set forth in Chapter 19.570 of the Riverside Municipal Code to increase the scenic quality of the proposed Project site. **Appendix A** show the conceptual landscape master plan.

The City of Riverside adopted the *Riverside Citywide Design Guidelines and Sign Guidelines* in 2007. Chapter III, Section A of the document provides residential design guidelines for single-family residential design. As part of the City's entitlement process, the Project applicant is required to implement design features to comply with City requirements in providing development of scenic quality. The Project has been designed to be compatible with the surrounding area and the Project does not conflict with applicable zoning and other regulations regarding scenic quality. Therefore, the proposed Project would not degrade the existing visual character of the area. Direct, indirect, and cumulative impacts would be **less than significant** with implementation of the proposed Project and no mitigation is required.

d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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1d. Response: (Source: General Plan 2025, Title 19 – Article VIII – Chapter 19.556 – Lighting, Citywide Design and Sign Guidelines; Riverside County Ordinance No. 655)

Less Than Significant Impact. The Project site is located in an area with existing outdoor lighting sources. Currently, sources of nighttime light originate from surrounding residential uses, streetlights, and the single-family residential neighborhood northwest of the site. The proposed lighting on the Project site would include lighting typical of single-family residential neighborhoods, including lights from inside and outside homes, entrance lighting, accent lights on common use landscaping features, lighting at the park on the Project site, and streetlights. The proposed lighting would be directed, oriented, and shielded to prevent light from shining onto adjacent properties. Although the lighting proposed by the Project would increase lighting on the Project site, compared to current conditions, the lighting would not result in a substantial light or glare increase compared to surrounding development. Any new lighting proposed or required for the Project would be constructed in accordance with *Section 19.590.070- Light and Glare* and the provisions of *Chapter 19.556 Lighting* of the City's Municipal Code. Additionally, any exterior building materials would be constructed in accordance with *Chapter 19.710 – Design Review* of the City's Municipal Code. Prior to the issuance of a building permit, the applicant would provide the City lighting plans for review and approval. Additionally, the City's Development Review Committee will review the proposed development to ensure exterior materials used for the construction of the single-family residential units are compliant with City guidelines prior to entitlement.

The Project applicant would comply with the outdoor lighting standards pursuant to Chapter 19.556 of the Riverside Municipal Code. As such, implementation of the proposed Project would have **less than significant impacts** directly, indirectly, or cumulatively that would adversely affect daytime or nighttime views due to glare and lighting. No mitigation is required.

2. AGRICULTURE AND FOREST RESOURCES

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

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2a. Response: (Source: General Plan and Supporting Documents EIR – Figure 5.2-1, California Department of Conservation Farmland Mapping and Monitoring Program Riverside County FTP Website)

No Impact. A review of Figure 5.2-1 of the City of Riverside General Plan and Supporting Documents EIR indicated that the Project site is not designated as or adjacent to land designated as Important Farmland (Prime Farmland, Unique Farmland, or Farmland of Statewide Importance). The California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) data for Riverside County were accessed to verify that the site was not designated as Important Farmland. According to the FMMP data, the Project site is designated as "Other Land (X)."

Implementation of the proposed Project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use. As such, **no impact** from a CEQA perspective would occur and no mitigation is required.

- b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?

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2b. Response: (Source: General Plan 2025 FPEIR – Figure 5.2-2 Williamson Act Preserves and Figure 5.2-4 – Proposed Zones Permitting Agricultural Uses, and Title 19; California Government Code Sections 51240-51257.5)

Less Than Significant Impact. The Project site is currently located within Agricultural Preserve No. 3 under a Williamson Act Contract; however, no agricultural productivity is occurring on the Project site. Between 1948 and 1966, the site was utilized for agricultural production. Between 1978 and 1994, a single-family residential unit and detached garage were constructed on the northeastern portion of the Project site. Sometime between 2002 and 2005, the portions of the site being utilized for agricultural production were suspended. Between 2006 and 2009, a brow ditch was constructed along the eastern perimeter of the site, in support of grading that occurred on an adjacent site to the east. Finally, sometime around 2014, the single-family residential unit on the site was demolished and a concrete slab foundation is the only sign of development left on the site. Based on the history of the Project site, it has not been used for agricultural production since 2005 (15 years prior to the preparation of this environmental document). The applicant, as part of the Project, is requesting a cancellation of the Agricultural Preserve No. 3 and Active Land Conservation Contract. Upon cancellation, the project will be developed to R-1-13000 Single Family Residential Zone, which is consistent with zoning designations surrounding the site and to maintain consistency with the Riverside 2025 General Plan. The proposed Project would develop 41 single-family residential units on a parcel zoned for residential development. With the cancellation of the Agricultural Preserve and the Williamson Act Contract, the development that would occur on the site would not conflict with any existing zoning for agricultural uses.

A Williamson Act Contract was established on the Project site on January 1, 1970. The Project applicant sent the City of Riverside a letter indicating their desire in commencing the nonrenewal of the Williamson Act Contract as required by Government Code Section 51245 on May 13, 2020, and the notice of nonrenewal was recorded on the Project site on June 2, 2020. According to Government Code Section 51244, "if the county or city or the landowner serves notice of intent in any year not to renew the contract, the existing contract shall remain in effect for the balance of the period remaining since the original execution or the last

renewal of the contract, as the case may be. As part of the proposed Project, the landowner is requesting the City Council to cancel the existing Agricultural Preserve and the Williamson Act Contract on the site as the contract is now under nonrenewal status. In order for the City Council to consider cancellation of the Williamson Act Contract on the site, pursuant to Government Code Section 51280 et seq., the City Council must make the following findings:

1. That the cancellation is consistent with the purposes of Chapter 7 Agricultural Land of the California Government Code.
 - a. That the cancellation is for land on which a notice of nonrenewal has been served pursuant to Section 51245.
 - b. That cancellation is not likely to result in the removal of adjacent lands from agricultural use.
 - c. That cancellation is for an alternative use which is consistent with the applicable provisions of the City General Plan.
 - d. That cancellation will not result in discontinuous patterns of urban development.
 - e. That there is no proximate noncontracted land which is both available and suitable for the use to which it is proposed the contracted land be put or, that development of the contracted land would provide more contiguous patterns of urban development than development of proximate noncontracted land.
2. That cancellation is in the public interest.

If the City Council makes the required findings pursuant to Government Code Section 51282(a) the landowner would be required to pay a cancellation fee equal to 12.5 percent of the cancellation valuation (unrestricted fair market value) of the property pursuant to Government Code Section 51283(b). As a requirement of Government Code Section 51280 et seq. the Williamson Act Contract cancellation petition would then be sent by the City Council to the California Department of Conservation for recordation. As a condition of approval, the Project applicant/landowner would be required to pay the Williamson Act cancellation fee determined by the City Council and the County of Riverside Assessor's Office.

Based on these procedures occurring, implementation of the proposed Project would not conflict with an Agricultural Preserve or a Williamson Act Contract and impacts would be **less than significant**.

c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) timberland (as defined in Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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2c. Response: (Source: GIS Map – Forest Data)

No Impact. The City of Riverside has no forest land that can support 10 percent native tree cover, nor does it have any timberland. The Project site is not zoned for forest land, timberland, or timberland zoned Timberland Production; as such, implementation of the Project would not conflict with such zoning designations. Therefore, **no impacts** would occur from this Project directly, indirectly, or cumulatively. No mitigation is required.

d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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2d. Response: (Source: GIS Map – Forest Data)

No Impact. The City of Riverside has no forest land that can support 10 percent native tree cover, nor does it have any timberland. The Project site is fully developed and is not occupied by forestland; as such, implementation of the Project would not result in the loss of forest land or conversion of forest land to non-forest use. **No impacts** would occur from this Project directly, indirectly, or cumulatively. No mitigation is required.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>2e. Response: <i>(Source: General Plan and Supporting Documents EIR – Figure 5.2-1, California Department of Conservation Farmland Mapping and Monitoring Program Riverside County FTP Website; General Plan 2025 FPEIR Title 19 – Article V – Chapter 19.100 – Residential Zones – RC Zone and RA Zone and GIS Map – Forest Data)</i></p> <p>No Impact. The California Department of Conservation FMMP data for Riverside County were accessed to verify that the site was not designated as Important Farmland. According to the FMMP data, the Project site is designated as “Other Land (X).” Active agricultural production has not occurred on the Project site since 1966. The Project site has a current land use designation of Low Density Residential (LDR). Upon cancellation of Agricultural Preserve No. 3 and the Williamson Act Contract (as described above), the OSP-RA Residential Agricultural and Specific Plan (Orangecrest) Overlay Zone will revert to R-1-13000 Single Family Residential Zone, which would be consistent with the land use designation and zoning/land use designation of surrounding parcels. There is no forest land on site. Parcels surrounding the Project site are not designated as agricultural or forest land use; as such, implementation of the proposed Project would not result in conversion of nearby Farmland to non-agricultural use or conversion of forest land to non-forest use. Therefore, the proposed Project would have no impact directly, indirectly, or cumulatively related to conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use. No mitigation is required.</p>				

3. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district 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?



3a. Response: (Source: *South Coast Air Quality Management District's 2007 Air Quality Management Plan (AQMP); Air Quality and Greenhouse Gas Analysis Obsidian Development, LSA, November 2020 Appendix B*)

Less Than Significant Impact. The Project site is located in the South Coast Air Basin (Basin) and is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The SCAQMD and the Southern California Association of Governments (SCAG) are responsible for formulating and implementing the Air Quality Management (AQMP), which has a 20-year horizon for the Basin. The current regional air quality plan is the Final 2016 AQMP adopted by the SCAQMD on March 10, 2017. The Final 2016 AQMP proposes policies and measures currently contemplated by responsible agencies to achieve federal standards for healthful air quality in the Basin and those portions of the Salton Sea Air Basin that are under SCAQMD jurisdiction. This Final Plan also addresses several federal planning requirements and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. This Final Plan builds upon the approaches taken in the 2012 AQMP for the Basin for the attainment of the federal ozone air quality standard.¹ The Basin is currently a federal and State nonattainment area for particulate matter less than 10 microns in size (PM₁₀), particulate matter less than 2.5 microns in size (PM_{2.5}), and ozone.

The Final 2016 AQMP proposes attainment demonstration of the federal PM_{2.5} standards through a more focused control of sulfur oxide (SO_x), directly emitted PM_{2.5}, nitrogen oxides (NO_x), and volatile organic compounds (VOC). Consistency with the AQMP for the Basin means that a project would be consistent with the goals, objectives, and assumptions in the respective plan to achieve the federal and State air quality standards. For a project to be consistent with the AQMP adopted by the SCAQMD, the pollutants emitted from the project should not exceed the SCAQMD daily threshold or cause a significant impact on air quality, or the project must already have been included in the AQMP projections. However, if feasible mitigation measures are implemented and shown to reduce the impact level from significant to less than significant, a project may be deemed consistent with the AQMP. The AQMP uses the assumptions and projections of local planning agencies to determine control strategies for regional compliance status. Since the AQMP is based on the local General Plan, projects that are deemed consistent with the General Plan are found to be consistent with the AQMP.

The City's General Plan is consistent with the SCAG Regional Comprehensive Plan Guidelines and the SCAQMD AQMP. The proposed Project includes 41 single-family residential units, a park, and internal neighborhood roads on approximately 10.06 acres. Based on the household size of 2.86 persons per residential unit used in the California Emissions Estimator Model (CalEEMod) v2016.3.2, the proposed Project could increase the City's population by approximately 117 persons.

Pursuant to the methodology provided in Chapter 12 of the 1993 SCAQMD *CEQA Air Quality Handbook*, consistency for project development proposals that differ from the land use designation assumed within the Basin's 2016 AQMP is affirmed when a project: (1) it does not increase the frequency or severity of an air quality standards violation or cause a new violation; and (2) is consistent with the growth assumptions in the AQMP. Consistency review is presented below:

1. While the project with mitigation measures would result in short-term construction pollutant emissions that are all less than the CEQA significance emissions thresholds established by SCAQMD, operational pollutant emissions would be less than SCAQMD significance thresholds; therefore, the project would not result in an increase in the frequency or severity of an air quality standards violation and would not cause a new air quality standard violation.
2. The *CEQA Air Quality Handbook* guidelines indicate that consistency with AQMP growth assumptions must be analyzed for new or amended General Plan elements, Specific Plans, and significant projects. Significant projects include airports, electrical-generating facilities, petroleum and gas refineries, designation of oil-drilling districts,

¹ Final 2013 Air Quality Management Plan, South Coast Air Quality Management District, February 2014.

water ports, solid-waste disposal sites, and offshore drilling facilities; therefore, the proposed Project is not defined as significant.

With respect to the first criterion, criteria pollutants during construction and operation of the proposed Project would not have the potential to cause or affect a violation of the Ambient Air Quality Standards. Because the proposed Project would not introduce any substantial stationary sources of emissions, carbon monoxide (CO) is the preferred benchmark pollutant for assessing local area pollutant impacts from post-construction motor vehicle operations. No intersections would require a CO hot-spot analysis, and impacts would be less than significant. Therefore, the proposed Project would not increase the frequency or severity of an existing CO violation or cause or contribute to new CO violations.

With respect to the second criterion for determining consistency with AQMP growth assumptions, the projections in the AQMP for achieving air quality goals are based on assumptions in SCAG's 2016 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) regarding population, housing, and growth trends. According to the 2016 RTP/SCS, the forecast population for the Riverside County subregion in 2040 is approximately 3,167,584 persons. In 2022, the projected occupancy year of the proposed Project, the Riverside County subregion is anticipated to have a population of approximately 2,471,192 persons. Therefore, the forecast population for the Riverside County subregion would grow by approximately 851,146 persons between 2018 and 2040. The proposed Project's 41 single-family homes would introduce an estimated net residential population of approximately 117 persons, based on the household size of 2.86 persons per unit for housing units. Thus, Project residents would account for 0.01 percent of the population growth forecast by SCAG in Riverside County subregion between 2018 and 2040. Because similar projections form the basis of the 2016 AQMP, it can be concluded that the proposed Project would be consistent with the projections in the AQMP.

SCAG foresees that population would increase in the City and region over the next 25 years, and the anticipated population growth rate in the City (2.4 percent) is roughly similar to that of Riverside County (2.0 percent) and the SCAG region (2.5 percent) for the same period. Because the Project site has been designated for residential uses by the City, the proposed increase in population by approximately 117 persons has been anticipated and planned for in the City's General Plan. Furthermore, as discussed below in Checklist Question 3b, the project-specific short-term construction and long-term pollutant emissions would be less than the emission thresholds established in the SCAQMD's *CEQA Air Quality Handbook*. Therefore, the Project would not result in an increase in the frequency or severity of any air quality standards violation and would not cause a new air quality standard violation. Through adherence to standard SCAQMD regional rules required for all development activity with the Basin that assist in reducing air pollutant emissions, the proposed Project would not conflict with or obstruct implementation of the AQMP. Direct, indirect, and cumulative Project impacts would be **less than significant** and no mitigation is required.

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?



3b. Response: (Source: General Plan 2025 FPEIR Table 5.3-B SCAQMD CEQA Regional Significance Thresholds, South Coast Air Quality Management District's 2007 Air Quality Management Plan, URBEMIS 2007 Model or CalEEMod 2017 Model, Air Quality and Greenhouse Gas Analysis Obsidian Development, LSA, November 2020 Appendix B)

Less Than Significant Impact. The information in this section is based on the Air Quality impact analysis that was conducted in the *Air Quality and Greenhouse Gas Analysis Technical Report* prepared for the Project by LSA (November 2020).

Construction Analysis

Construction activities produce combustion emissions from various sources (e.g., demolition, site preparation, grading, utility engines, tenant improvements, and motor vehicles transporting the construction crew). Exhaust emissions from construction activities envisioned on site would vary daily as construction activity levels change. The use of construction equipment on the Project site would result in localized exhaust emissions.

The construction calculations prepared for the Project assumed that dust control measures (watering a minimum of three times daily) would be employed to reduce emissions of fugitive dust during site grading. Further, all construction would need to comply with SCAQMD Rule 403 regarding emission of fugitive dust. The most recent version of CalEEMod (Version 2016.3.2) was used to calculate the construction emissions. **Table C: Estimated Construction Emissions** shows the estimated construction emissions and the determination if generation of such emissions exceeds SCAQMD thresholds. No exceedances of any criteria pollutants are expected during construction; therefore, project-related short-term construction air quality impacts would be **less than significant** and no mitigation is required.

Table C: Estimated Construction Emissions

Construction Phase	Total Regional Pollutant Emissions (lbs/day)							
	VOC	NOx	CO	SOx	Fugitive PM ₁₀	Exhaust PM ₁₀	Fugitive PM _{2.5}	Exhaust PM _{2.5}
Demolition	3.39	33.35	22.38	0.04	0.20	1.66	0.05	1.54
Site Preparation	4.17	42.48	22.25	0.04	7.25	2.20	3.93	2.02
Grading	4.55	50.26	32.77	0.06	3.61	2.18	1.46	2.00
Building Construction	2.21	19.66	17.56	0.03	0.19	1.12	0.05	1.05
Paving	1.32	12.96	15.22	0.02	0.17	0.68	0.04	0.62
Architectural Coating	23.31	1.42	1.92	0.00	0.02	0.08	0.01	0.08
Peak Daily	23.31	50.26	32.77	0.06	9.45		5.95	
SCAQMD Thresholds	75.00	100.00	550.00	150.00	150.00		55.00	
Significant Emissions?	No	No	No	No	No		No	

Source: LSA, *Air Quality and Greenhouse Gas Analysis Technical Report*, Table I, pg. 40, February 2020.

CO = carbon monoxide

NOx = nitrogen oxides

PM₁₀ = particulate matter less than 10 microns in size

SOx = sulfur oxides

lbs/day = pounds per day

PM_{2.5} = particulate matter less than 2.5 microns in size

SCAQMD = South Coast Air Quality Management District

VOC = volatile organic compounds

Fugitive Dust: Fugitive dust emissions are generally associated with land clearing and exposure of soils to the air and wind, as well as cut-and-fill grading operations. Dust generated during construction varies substantially on a project-by-project basis, depending on the level of activity, the specific operations, and weather conditions at the time of construction. The proposed Project will be required to comply with SCAQMD Rule 403 to control fugitive dust.

Architectural Coatings: Architectural coatings contain VOCs that are part of the ozone precursors. Based on the uses associated with the proposed Project, it is estimated that application of the architectural coatings for the proposed peak construction day would result in a peak of 23.31 pounds per day (lbs/day) of VOCs. Therefore, VOC emission from this task would not exceed SCAQMD VOC established thresholds of 75 lbs/day.

Naturally Occurring Asbestos: The proposed Project is located in Riverside County, which is among the California counties found to have serpentine and ultramafic rock in their soils. However, according to the California Geologic Survey mapping of the Project site, no such rock has been identified in the Project vicinity. As such, the potential risk for natural occurring asbestos during Project construction is less than significant.

Operational Analysis

Long-term air pollutant emissions impacts are those associated with stationary sources and mobile sources involving project-related changes. The proposed Project would result in net increases in both stationary-and-mobile source emissions. The stationary-source emissions would come from many sources, including the use of consumer products, landscaping equipment, general energy, and solid waste.

Based on the Trip Generation Memorandum (July 2019), the proposed project would generate approximately 387 trips per day. The project's average daily trips were entered in the CalEEMod. The results are shown in **Table D: Regional Operational**

Emissions, which demonstrates that none of the criteria pollutants would exceed SCAQMD emission thresholds. Therefore, project-related long-term air quality impacts would be **less than significant** and no mitigation is required.

Table D: Regional Operational Emissions

Source	Pollutant Emissions, lbs/day					
	VOC	NOx	CO	SOx	PM ₁₀	PM _{2.5}
Area	1.69	0.04	3.39	<0.01	0.02	0.02
Energy	<0.02	0.18	0.08	<0.01	0.01	0.02
Mobile	0.07	3.53	9.42	0.04	2.98	0.82
Total Project Emissions	2.41	3.75	12.88	0.04	3.01	0.85
SCAQMD Thresholds	55.00	55.00	550.00	150.00	150.00	55.00
Significant?	No	No	No	No	No	No

Source: LSA, *Air Quality and Greenhouse Gas Analysis Technical Report*, Table K, pg. 42, February 2020.

CO = carbon monoxide

lbs/day = pounds per day

NOx = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

SCAQMD = South Coast Air Quality Management District

SOx = sulfur oxides

VOC = volatile organic compounds

Localized Impacts: CalEEMod was used to calculate localized nitrogen dioxide, carbon monoxide (CO), PM₁₀, and PM_{2.5} pollutant concentrations for Project operational activities. **Table E: Operational Localized Impacts Analysis** shows that the operational emissions rates would not exceed the localized significance thresholds (LSTs) for residents in the Project area. Localized impacts analysis only includes on-site sources; however, the CalEEMod outputs do not separate on-site and off-site emissions for mobile sources. Motor vehicle emissions are estimated based on the average trip length for residential land uses. The average trip length used in the CalEEMod does not break down the portion of the motor vehicle emissions generated on site. For a worst-case scenario vehicle emission assessment of the mobile source, the emissions shown in **Table E** include all on-site Project-related area sources and 5 percent of the Project-related new mobile sources, which is an estimate of the amount of Project-related new vehicle traffic that would occur on site. During operation, the proposed Project would not exceed NOx, CO, PM₁₀, or PM_{2.5} thresholds. Therefore, the proposed operational activity would not result in a locally significant air quality impact. Impacts would be **less than significant** and no mitigation is required.

Table E: Operational Localized Impacts Analysis

Emissions Sources	NOx (lbs/day)	CO (lbs/day)	PM ₁₀ (lbs/day)	PM _{2.5} (lbs/day)
Maximum On-site Emissions	0.2	3.9	0.2	0.1
LST – 5-acre site	270	1,577	4.0	2.0
Significant Emissions?	No	No	No	No

Source: LSA, *Air Quality and Greenhouse Gas Analysis Technical Report*, Table L, pg. 43, May 2020.

Note: Source Receptor Area – Metropolitan Riverside County, 5 acres, receptors at less than 25 meters (82.02 feet).

CO = carbon monoxide

LST = localized significance threshold

NOx = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

Long-Term Microscale (CO Hot Spot) Analysis: Vehicular trips associated with the proposed Project would contribute to congestion at intersections and along roadway segments in the Project vicinity. Localized air quality impacts would occur when emissions from vehicular traffic increase as a result of the proposed Project. The primary mobile-source pollutant of local concern is CO, a direct function of vehicle idling time and, this, of traffic flow conditions. Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels. Since the SCAQMD modeled intersections do not exceed the CO standards, intersections within the proposed Project study area with less volumes of traffic and under less extreme conditions would not exceed the CO standards. Buildout of the proposed Project would not produce the volume of traffic, as described above, required to generate a CO hot

spot. Therefore, implementation of the proposed Project would not be expected to result in CO hot spots, and impacts would be **less than significant**.

The Project would contribute to criteria pollutants to the area during Project construction. A number of individual projects in the area may be under construction simultaneously with the proposed Project. Depending on construction schedules and actual implementation of projects in the area, generation of fugitive dust and pollutant emissions during construction could result in substantial short-term increases in air pollutants. However, each project would be required to comply with the SCAQMD's standard construction measures. The proposed Project's short-term construction CO, nitrogen dioxide, PM₁₀, and PM_{2.5} emissions would not exceed the LSTs. Therefore, construction of the proposed Project would have a **less than significant impact** with regard to regional and localized emissions and impacts would not be cumulatively considerable. As a result, the proposed Project does not result in any new significant impacts that were not previously evaluated and for which a statement of overriding considerations was adopted as part of the General Plan 2025 FPEIR. Therefore, cumulative air quality emissions impacts are **less than significant**. No mitigation is required.

c. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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3c. Response: (Source: General Plan 2025 FPEIR Table 5.3-B SCAQMD CEQA Regional Significance Thresholds, South Coast Air Quality Management District's 2016 Air Quality Management Plan, CalEEMod, EMFAC 2017 Air Quality and Greenhouse Gas Analysis Obsidian Development, LSA, November 2020 Appendix B)

Less Than Significant Impact. The closest sensitive receptors to the Project site are single-family residential homes, located approximately 45 feet north of the Project at 18810 Lurin Avenue. **Table F: Construction Localized Impacts Analysis** identifies the emissions thresholds for local pollutants based on the nearest sensitive receptors. This area is consistent with the anticipated intensity of construction and based on the number of pieces of construction equipment to be used.

Table F: Construction Localized Impacts Analysis

Emissions Sources	Pollutant Emissions			
	NOx	CO	PM ₁₀	PM _{2.5}
On-Site Construction Emissions	50	32	8.0	4.8
LST – 4 acres	237	1,346	11.0	6.7
Significant Emissions	No	No	No	No

Source: LSA, Air Quality and Greenhouse Gas Analysis Technical Report, Table J, pg. 41, May 2020.

Note: Source Receptor Area-Metropolitan Riverside County, 4 acres, receptors at 25 meters.

CO = carbon monoxide
lbs/day = pounds per day
NOx = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size
PM₁₀ = particulate matter less than 10 microns in size
LST = localized significance threshold

Table F shows that daily construction emissions would not exceed the daily thresholds and the air quality standards of the VOC, NOx, CO, SOx, PM₁₀, and PM_{2.5} pollutant emission thresholds established by the SCAQMD. No additional mitigation is required for the construction equipment.

In conformance with the General Plan 2025 FPEIR Mitigation Measure AIR 1 and Mitigation Measure AIR 7, CalEEMod analyzed short-term construction and long-term operational related impacts of the Project and determined that the proposed Project would not exceed SCAQMD thresholds for short-term construction and long-term operational impacts. Therefore, the Project would not expose sensitive receptors to substantial pollutant concentrations and a **less than significant impact** would occur directly, indirectly, or cumulatively for this project. No mitigation is required.

d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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3d. Response: (Source: General Plan 2025 FPEIR Table 5.3-B SCAQMD CEQA Regional Significance Thresholds, South Coast Air Quality Management District's 2016 Air Quality Management Plan, CalEEMod, EMFAC 2017 Model and Air Quality and Greenhouse Gas Analysis Obsidian Development, LSA, November 2020 Appendix B)

Less Than Significant Impact. Construction equipment exhaust, the application of architectural coatings, and the installation of asphalt surfaces may create odors in the Project vicinity during its construction. These construction activities are of a temporary duration and would not occur after completion of construction. The Project would be required to comply with SCAQMD Rule 1113 standards for paint applications and Rule 1108 standards regarding application of asphalt as a matter of regulatory policy.

Land uses generally associated with long-term (i.e., operational) objectionable odors include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting operations, refineries, landfills, dairies, and/or various heavy industrial uses. The proposed Project does not propose any such uses or activities that would result in a potentially significant operational-source odor impact. Potential sources of project-generated operational odors include disposal of miscellaneous domestic refuse. Consistent with City requirements, all project-generated refuse would be stored in covered containers and removed at regular intervals in accordance with solid waste regulations, thereby precluding substantial generation of odors that could result from temporary holding of refuse on site. Additionally, the proposed Project would be required to comply with SCAQMD Rule 402, which regulates nuisance odors.

Through compliance with SCAQMD Rule 1108, 1113, and 402, the Project would not involve any substantial short-term or long-term sources of odors. Direct, indirect, or cumulative Project impacts are considered **less than significant** and no mitigation is required.

4. BIOLOGICAL RESOURCES

Would the project:

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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4a. Response: (Source: *TERACOR Resource Management, Inc., Multiple Species Habitat Conservation Plan Consistency Analysis and General Biological Assessment for Tentative Tract No. 37733 a Subdivision of 10.07 Gross Acres (9.07 Net Acres) into 40 Single Family Residential Lots in the City of Riverside, June 7, 2020; Step I Habitat Assessment, Step II, Part A Focused Burrow Survey and Step II, Part B Focused Burrowing Owl Survey for Tentative Tract No. 37733 a Subdivision of 10.07 Gross Acres (9.07 Net Acres) into 40 Single Family Residential Lots in the City of Riverside, June 7, 2020; TERACOR Resource Management, Inc., Tentative Tract No. 37733 (Obsidian)-Update on Burrowing Owl Report, September 28, 2020 Appendix C*)

Less Than Significant with Mitigation Incorporated. The *Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis and General Biological Assessment* was prepared by TERACOR Resource Management, Inc., June 7, 2020, to ensure the proposed Project was consistent with the Western Riverside County MSHCP and to analyze potential impacts to biological resources.

The Project site is located within the boundaries of the MSHCP. All projects within the MSHCP are required to analyze their consistency with the MSHCP, including conducting analyses of species on designated parcels across the Plan Area, such as criteria area/narrow endemic plant species, or animals like burrowing owl. These analyses usually include preparation of specific habitat assessments for target organisms. If a given property is found to be suitable for specified species to occur, then focused surveys are often required for the specific species. The Riverside County Regional Conservation Authority (RCA) MSHCP Information Map outlines, on a parcel-by-parcel basis, those properties which require habitat assessment and focused surveys. The only species requiring specific analysis for the Project site is the burrowing owl. When development or a property is proposed, the City of Riverside is also required to consult the Regional Conservation Authority's MSHCP Information Map to determine the following:

- If a property is located within a MSHCP-designated Cell Group or Criteria Cell (which the Project site is not); and
- If it is in either a Cell or Cell Group, then there would be a Conservation Description which outlines how conservation should be organized in that particular area (not applicable to the Project site).

A focused habitat suitability assessment was conducted on the Project site on July 31, 2019, to evaluate the on-site biological resources to determine if 1) suitable burrowing owl (*Athene cunicularia*) (BUOW) habitat is present on the site and 2) determine if any burrows on-site could potentially be utilized by BUOW. No BUOW were observed during the course of four focused surveys on the Project site and no primary or secondary/evidence of BUOW occupation was detected on the site. Additionally, no owls were observed at off-site locations near the proposed Project site.

The Project site is located on a vacant site within a semi-urbanized area of the City of Riverside. A search of the MSHCP database and other appropriate databases identified potential for candidate, sensitive, or special-status species, or suitable habitat for such species to occur on site. Federal Species of Concern, California Species of Special Concern, and California Species Animal or Plants on lists 1-4 of the California Native Plant Society Inventory may also have the potential to be located on the Project site. Table 3 - MSHCP Covered Species of the *General Biological Assessment and Multiple Species Habitat Conservation Plan* lists MSHCP Covered Species that have been designated as present, not present, or potentially occurring (low, moderate, high potential) on the Project site. As the Project site was utilized for agricultural purposes, the on-site habitat is disturbed and supports non-native grasses and herbs. These grassland areas have a low value for sedentary wildlife and moderate value for raptors still foraging in the area, including hawks and nocturnal owls. The ornamental trees on site provide perching habitat for red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), and Cooper's hawk (*Accipiter*

cooperii), though only red-tailed hawk and Cooper's hawk were detected near the Project site. No on-site raptor nesting would be expected due to the relatively small size of trees on site. During the surveys conducted in 2019, a number of wildlife species were detected on the Project site. These species include red-tailed hawk, Cooper's hawk, lesser goldfinch (*Spinus psaltria*), California scrub-jay (*Aphelocoma californica*), house finch (*Haemorhous mexicanus*), American kestrel (*Falco sparverius*), common raven (*Corvus corax*), western fence lizard (*Sceloporus occidentalis*), common side-blotched lizard (*Uta stansburiana*), coyote (*Canis latrans*), opossum (*Didelphis virginiana*), and bat species such as western yellow bat (*Lasiurus xanthinus*) and western mastiff bat (*Eumops perotis californicus*). Additionally, there are a couple of species of white-footed mice that could still occur on site relictually (*Peromyscus* sp.), California kingsnake (*Lampropeltis californiae*), southern Pacific rattlesnake (*Crotalus oreganus helleri*), western toad (*Anaxyrus boreas*), and Pacific tree frog (*Pseudacris regilla*).

Project-associated impacts within the MSHCP are typically offset and mitigated via a number of processes. When projects are within Criteria Cells, various combinations of fee-payment, land dedication/purchase, and other mechanisms as applicable can be utilized to offset impacts to sensitive species and habitats of all types, but the Project site is not within a Criteria Cell or Cell Group. Some project areas are required to survey for specific biological resources, such as burrowing owls or fairy shrimp. Focused survey were conducted in 2019 for burrowing owl, with negative results and no owls were detected. The proposed Project is not within a Criteria Cell; therefore, there are no outright land dedications required. There are no burrowing owls present; therefore, at this time, no specific BUOW-related mitigation is necessary.

The Project site is located within the California Floristic Province Southwestern California region. One semi-natural, recognized vegetative cover occurs on the Project site: annual non-native brome grassland. **Table G: Vegetation Communities** shows the type of vegetative communities that currently exist on the Project site.

Table G: Vegetation Communities

Vegetation Community	Size of Community on the Project Site (acres)
Disturbed Annual Non-Native Grassland	9.64
Ornamental Alliance	0.16
Developed/Roadway	0.27
Total	10.07

Source: TERACOR Resource Management Inc., *MSHCP Consistency Analysis and General Biological Assessment for Tentative Tract No. 37733 a Subdivision of 10.07 Gross Acres (9.07 Net Acres) into 40 Single Family Residential Lots in the City of Riverside*, Table 2.

Project implementation would result in the permanent removal of 10.07 acres of natural and semi-natural habitat as shown in **Table G**. Of the 10.07 acres, most of it consists of disturbed upland habitat comprised of annual brome grasslands, mustard field, and ornamental trees. Removal of these vegetative communities may potentially affect sensitive plant and animal species which are State, federally, and MSHCP protected. Implementation of **Mitigation Measures BIO-1** through **BIO-4** would reduce impacts to a **less than significant** level under CEQA.

Mitigation Measures

BIO-1: Prior to the issuance of grading permits, the applicant shall make the appropriate mitigation fee payment into the MSHCP Stephens' kangaroo rat fee payment program for conservation of Stephens' kangaroo rat-occupied habitats in order to offset the loss of potentially suitable Stephens' kangaroo rat habitat on site through project implementation.

BIO-2: Prior to on-site vegetation clearance, the Project applicant shall retain a qualified biologist to conduct a pre-construction nesting bird survey in accordance with the following:

- The survey shall be conducted no more than three days prior to the initiation of clearance/construction work.
- If pre-construction surveys indicate that bird nests are not present or are inactive, or if potential habitat is unoccupied, no further mitigation is required.

- If active nests of birds are found during the surveys, a species-specific no-disturbance buffer zone shall be established by a qualified biologist around active nests until said qualified biologist determines that all young have fledged (i.e., are no longer reliant upon the nest).
- It is recommended that coordination between the developer of the site, the City of Riverside, the project engineer, and the consulting qualified biologist to consider vegetation clearance outside of the normal bird nesting season (usually February 15 through September 15) to avoid impacts to nesting birds that would potentially violate the Migratory Bird Treaty Act. It should be noted that bird nesting season is increasingly less definitive for some year-round resident species, such as hummingbirds and raptors. Further, ground-dwelling birds such as burrowing owls, can be affected nearly any time of the year if present. It is therefore advisable to conduct a pre-construction bird survey no matter the time of year.
- Removal of vegetation necessitates installation of appropriate Storm Water Pollution Prevention Plan (SWPPP) measures, particularly if grading is not undertaken immediately; therefore, careful timing of the Project schedule and implementation measures is necessary to avoid water quality impacts.

BIO-3: The Project applicant shall retain a qualified biologist to conduct a 30-day pre-construction survey for burrowing owl. The results of the single one-day survey shall be submitted to the City prior to obtaining a grading permit. If burrowing owl are not detected during the pre-construction survey, no further mitigation is required. If burrowing owl are detected during the pre-construction survey, the Project applicant and a qualified consulting biologist will be required to prepare and submit for approval a burrowing owl-relocation program.

BIO-4: In accordance with MSHCP provisions limiting the use of exotic and invasive plant species, the Project's landscape plan shall exclude invasive species such as, but not limited to crimson fountain grass (*Pennisetum setaceum*), Pampas grass (*Cortaderia selloana*), giant reed (*Arundo donax*), tree of heaven (*Ailanthus altissima*), eucalyptus (*Eucalyptus* sp.), and other ornamental landscape elements on the list of exotic invasive plants utilized by the Riverside Conservation Authority that have the potential to spread into adjoining, downstream, or nearby areas.

With implementation of **Mitigation Measures BIO-1** through **BIO-4**, the proposed Project would not 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 United States Fish and Wildlife Service. Impacts would be **less than significant with mitigation incorporated**.

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

4b. Response: (Source: *TERACOR Resource Management, Inc., MSHCP Consistency Analysis and General Biological Assessment for Tentative Tract No. 37733 a Subdivision of 10.07 Gross Acres (9.07 Net Acres) into 40 Single Family Residential Lots in the City of Riverside, June 7, 2020; Step I Habitat Assessment, Step II, Part A Focused Burrow Survey and Step II, Part B Focused Burrowing Owl Survey for Tentative Tract No. 37733 a Subdivision of 10.07 Gross Acres (9.07 Net Acres) into 40 Single Family Residential Lots in the City of Riverside, June 7, 2020; TERACOR Resource Management, Inc., Tentative Tract No. 37733 (Obsidian)-Update on BUOW Report, September 28, 2020 Appendix C*).

Less Than Significant Impact. Section 6.1.2 of the MSHCP requires assessment of impacts to riparian habitats, riverine areas, and vernal pools, including focused surveys for sensitive riparian bird and fairy shrimp species when suitable habitat is present. The intent of the assessment requirement is to provide for the protection of resources used by MSHCP-covered species, as well as existing and future downstream conservation areas. Riverine/riparian areas and vernal pools are defined in Section 6.1.2 of the MSHCP as follows: *Riparian/Riverine Areas are lands which contain habitat dominated by trees, shrubs, persistent emergent, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year.*

Fieldwork on the Project site in 2019 concluded that the property is at the top of the local watershed. As such, it receives no substantive runoff from adjacent parcels. Further, on-site soils consist exclusively of sandy loams that drain well and generally slope broadly from northwest to southeast. Historic mechanical rearrangement of the surface soils occurred when the past citrus grove was installed, and those modifications may have been the stimulus for colonization by non-native pepper trees and other non-native trees.

There were no vernal pools located on the Project site during field investigations. The sandy loam soils on site are not conducive to ponding and there was no evidence across the property any location on the site ponded. Soils on site are shallow and underlain by granitic basement rock which, when subsurface water comes into contact with it, conducts water laterally and downward via hydraulic pressure and gravitational forces. As no vernal pools were located on site, vernal pool-associated species were also absent on site.

As such, implementation of the proposed Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. Direct, indirect, and cumulative Project impacts would be **less than significant** and no mitigation is required.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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4c. Response: (Source: *TERACOR Resource Management, Inc., MSHCP Consistency Analysis and General Biological Assessment for Tentative Tract No. 37733 a Subdivision of 10.07 Gross Acres (9.07 Net Acres) into 40 Single Family Residential Lots in the City of Riverside, June 7, 2020; Step I Habitat Assessment, Step II, Part A Focused Burrow Survey and Step II, Part B Focused Burrowing Owl Survey for Tentative Tract No. 37733 a Subdivision of 10.07 Gross Acres (9.07 Net Acres) into 40 Single Family Residential Lots in the City of Riverside, June 7, 2020; TERACOR Resource Management, Inc., Tentative Tract No. 37733 (Obsidian)-Update on BUOW Report, September 28, 2020 Appendix C).*

No Impact. Section 6.1.2 of the MSHCP requires assessment of impacts to riparian habitats, riverine areas, and vernal pools, including focused surveys for sensitive riparian bird and fairy shrimp species when suitable habitat is present. The intent of the assessment requirement is to provide for the protection of resources used by MSHCP-covered species, as well as existing and future downstream conservation areas. Riverine/riparian areas and vernal pools are defined in Section 6.1.2 of the MSHCP as follows: *Vernal pools are seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the drier portion of the growing season. The determination that an area exhibits vernal pool characteristics, and the definition of the watershed supporting vernal pool hydrology, must be made on a case-by-case basis. Such determinations should consider the length of the time the area exhibits upland and wetland characteristics and the manner in which the area fits into the overall ecological system as a wetland. Evidence concerning the persistence of an area's wetness can be obtained from its history, vegetation, soils, and drainage characteristics, uses to which it has been subjected, and weather and hydrologic records. For Riverside, vernal pool and Santa Rosa fairy shrimp, mapping of stock ponds, ephemeral pools and other features shall also be undertaken as determined appropriate by a qualified biologist.*

Field surveys conducted on the Project site and historic aerial photo analysis concluded that no streams, drainages, ditches, ponds, pools, or other surface waters that might fall under the regulatory authority of regional, State, and federal agencies occur onsite. No authorizations from the U.S. Army Corps of Engineers is necessary since the Project site contains no surface water features, no pond or vernal pools, or any other features regulated by the U.S. Army Corps of Engineers. Since there are no federal "waters" of the U.S. presently on site, it is not necessary to issue a Section 401 Water Quality Certification under the Federal Clean Water Act. There are also no State regulated streambeds or water features on site that would be altered or directly affected or removed as a result of Project implementation. Finally, a Notification of Lake or Streambed Alteration

document/application is not required from the California Department of Fish and Wildlife (CDFW) as there are no streambeds, no drainages, no creeks, no rivers, no ponds, no lakes, or no pools on site that are regulated by the CDFW.

Based on the absence of water features on the site, implementation of the proposed Project would not have a substantial adverse effect on State or federally-protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filing, hydrological interruption, or other means. **No impact** would occur and no mitigation measures are required.

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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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4d. Response: *(Source: MSHCP, General Plan 2025 –Figure OS-7 – MSHCP Cores and Linkage; TERACOR Resource Management, Inc., MSHCP Consistency Analysis and General Biological Assessment for Tentative Tract No. 37733 a Subdivision of 10.07 Gross Acres (9.07 Net Acres) into 40 Single Family Residential Lots in the City of Riverside, June 7, 2020; Step I Habitat Assessment, Step II, Part A Focused Burrow Survey and Step II, Part B Focused Burrowing Owl Survey for Tentative Tract No. 37733 a Subdivision of 10.07 Gross Acres (9.07 Net Acres) into 40 Single Family Residential Lots in the City of Riverside, June 7, 2020; TERACOR Resource Management, Inc., Tentative Tract No. 37733 (Obsidian)-Update on BUOW Report, September 28, 2020 Appendix C)*

Less Than Significant with Mitigation Incorporated. Habitat fragmentation occurs when a single, contiguous habitat area is divided into two or more areas, or where an action isolates the two or more new areas from each other. Isolation of habitat occurs when wildlife cannot move freely from one portion of the habitat to another or to/from one habitat type to another. Habitat fragmentation may occur when a portion of one or more habitats is converted to another habitat, as when scrub habitats are converted into annual grassland habitat because of frequent burning. Wildlife movement includes seasonal migration along corridors, as well as daily movements for foraging. Examples of migration corridors may include areas of unobstructed movement for deer, riparian corridors providing cover for migrating birds, routes between breeding waters and upland habitat for amphibians, and between roosting and feeding areas for birds.

The Project site is located in the Orangecrest Specific Plan, an area undergoing expanding urbanization due to increase population and development pressures in the City and County of Riverside. As such, the Project site is not located in an area to serve as a movement or migratory corridor, and the MSHCP did not specify any critical habitat connectivity, constrained or otherwise, in the immediate area of the Project site. The nearest intended connective habitat areas to the proposed Project is the Sycamore Canyon Wildness Park habitat area, 3.5 miles to the northeast of the Project site. Sycamore Canyon is a different watershed than the Project site, which is in the Mockingbird Canyon watershed. Recent grading to the east and development to the north and south of the Project site precludes overland connectivity between the Project area and conserved lands to its northeast. The *General Biological Assessment and MSHCP Consistency Analysis* prepared for the Project concluded that no evidence was found to support the possibility that the Project site functions as a corridor or movement pathway for any MSHCP-covered animals.

The Project site is occupied with ornamental trees that have the potential to provide areas for nesting birds. However, raptor nesting is not expected due to the relatively small size of the ornamental trees on site. During the bird breeding season (typically February 1 through August 31), large trees on or adjacent to the Project site may be used by hawks, ravens, or other large birds for nesting. Trees, shrubs, and other vegetation on site may provide nest sites for smaller birds, and burrowing owls may nest in ground squirrel burrows or some similar feature (however, response 4a above indicates that burrowing owl were not observed on the Project site during field visits). Nesting bird species with potential to occur are protected by California Fish and Game Code Sections 3503, 3503.5, and 3800, and by the Migratory Bird Treaty Act (16 USC 703-711). These laws regulate the take, possession, or destruction of the nest or eggs of any migratory bird or bird of prey. However, the United States Fish and Wildlife Service has recently determined that the Migratory Bird Treaty Act should apply only to "... affirmative actions that have as their purpose the taking or killing of migratory birds, their nests, or their eggs" and would not be applied to incidental take of migratory birds pursuant to otherwise lawful activities. To avoid potential effects to fully protected raptors, special-status bird species, and other nesting birds protected by the California Fish and Game Code, and for compliance with MSHCP Incidental Take Permit Condition 5, State regulations require a nesting bird pre-construction survey to be conducted by a qualified biologist three days prior to ground-disturbing activities. Should nesting birds be found, an

exclusionary buffer would be established by the qualified biologist. The buffer may be up to 500 feet in diameter depending on the species of nesting bird found. This buffer would be clearly marked in the field by construction personnel under guidance of the qualified biologist and construction or clearing would not be conducted within this zone until the qualified biologist determines that the young have fledged or the nest is no longer active. Nesting bird habitat within the biological study area would be resurveyed during bird breeding season if there is a lapse in construction activities longer than seven days. The nesting bird pre-construction survey will be implemented through **Mitigation Measure BIO-2** as described above.

Implementation of **Mitigation Measure BIO-2** would ensure that nesting birds in the Project area are not disturbed during construction activities. Direct, indirect, or cumulative Project impacts would be **less than significant with mitigation incorporated**.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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4e. Response: (Source: MSHCP, Title 16 Section 16.72.040 – Establishing the Western Riverside County MSHCP Mitigation Fee, Title 16 Section 16.40.040 – Establishing a Threatened and Endangered Species Fees, City of Riverside Urban Forest Tree Policy Manual; MSHCP, General Plan 2025 –Figure OS-7 – MSHCP Cores and Linkage; TERACOR Resource Management, Inc., MSHCP Consistency Analysis and General Biological Assessment for Tentative Tract No. 37733 a Subdivision of 10.07 Gross Acres (9.07 Net Acres) into 40 Single Family Residential Lots in the City of Riverside, June 7, 2020; Step I Habitat Assessment, Step II, Part A Focused Burrow Survey and Step II, Part B Focused Burrowing Owl Survey for Tentative Tract No. 37733 a Subdivision of 10.07 Gross Acres (9.07 Net Acres) into 40 Single Family Residential Lots in the City of Riverside, June 7, 2020; TERACOR Resource Management, Inc., Tentative Tract No. 37733 (Obsidian)-Update on BUOW Report, September 28, 2020 Appendix C)

Less Than Significant Impact. Implementation of the Project is subject to all applicable federal, State, and local policies and regulations related to the protection of biological resources and tree preservation. Additionally, the Project is required to comply with Riverside Municipal Code 16.72.040 establishing the MSHCP mitigation fee and Section 16.40 establishing the Threatened and Endangered Species Fees. Construction of the proposed Project would require the removal of ornamental trees on site; however, the Project would not be subject to the *Riverside Urban Tree Policy Manual* pertaining to tree removal as none of the ornamental trees is located within a City-owned right-of-way. Implementation of the proposed Project would have a **less than significant impact** directly, indirectly, or cumulatively related to local policies or ordinances protecting biological resources. No mitigation is required.

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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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4f. Response: (Source: MSHCP, General Plan 2025 – Figure OS-6 – Stephen’s Kangaroo Rat (SKR) Core Reserve and Other Habitat Conservation Plans, Stephens’ Kangaroo Rat Habitat Conservation Plan, Lake Mathews Multiple Species Habitat Conservation Plan and Natural Community Conservation Plan, and El Sobrante Landfill Habitat Conservation Plan; MSHCP, General Plan 2025 –Figure OS-7 – MSHCP Cores and Linkage; TERACOR Resource Management, Inc., MSHCP Consistency Analysis and General Biological Assessment for Tentative Tract No. 37733 a Subdivision of 10.07 Gross Acres (9.07 Net Acres) into 40 Single Family Residential Lots in the City of Riverside, June 7, 2020; Step I Habitat Assessment, Step II, Part A Focused Burrow Survey and Step II, Part B Focused Burrowing Owl Survey for Tentative Tract No. 37733 a Subdivision of 10.07 Gross Acres (9.07 Net Acres) into 40 Single Family Residential Lots in the City of Riverside, June 7, 2020; TERACOR Resource Management, Inc., Tentative Tract No. 37733 (Obsidian)-Update on BUOW Report, September 28, 2020 Appendix C)

Less Than Significant with Mitigation Incorporated. The Project site is located within a semi-urbanized portion of Riverside and is located within the MSHCP; therefore, the Project is subject to applicable provisions of the MSHCP as specified in Checklist Responses 4a, 4b, 4c, and 4d above. The MSHCP provides for the assembly of a Conservation Area consisting of Core Areas and Linkages for the conservation of covered species. The Conservation Area is to be assembled from portions of the MSHCP Criteria Area, which consist of quarter-section (i.e., approximately 160-acre) Criteria Cells, each

with specific criteria for the species conservation within that cell. The Project site is not within the MSHCP Criteria Area; therefore, no Cell or Criteria analysis is required. There are no burrowing owls present on site; therefore, at this time, no specific burrowing owl mitigation measures are necessary. The proposed Project would affect MSHCP-covered plant and animal species as described above under Thresholds 4a, 4b, 4c, and 4d; however, such impacts are what the MSHCP anticipated and offsets the impact through fee payments.

Project implementation would result in the permanent removal of 10.07 acres of natural and semi-natural habitat as shown in **Table G**. Of the 10.07 acres, most of it consists of disturbed upland habitat consisting of annual brome grasslands, mustard field, and ornamental trees. In order to reduce impacts to biological resources protected by the MSHCP, **Mitigation Measures BIO-1** through **BIO-4** would be implemented, which would reduce direct, indirect, and cumulative Project impacts to a level that is **less than significant with mitigation incorporated**.

5. CULTURAL RESOURCES

Would the project:

- a. Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5 of the *CEQA Guidelines*?

☐☒☐☐

5a. Response: (Source: GP 2025 FPEIR Table 5.5-A Historical Districts and Neighborhood Conservation Areas and Appendix D, Title 20 of the Riverside Municipal Code; Cultural Resources Assessment Lurin Obsidian Tract Project, November 2020, Appendix D of this IS/MND)

Less Than Significant with Mitigation Incorporated. A *Cultural Resources Assessment*, November 2020, was prepared for the proposed Project to provide the City of Riverside the necessary information and analysis to determine, as mandated by CEQA, whether the proposed Project would cause substantial adverse changes to any historical resources that may exist in or around the Project site. A large standing metal building, associated barbecue and patio, recent agricultural shed and appurtenance slabs, apiary debris, substantial landscape debris (coarse mulch and wood), and modern refuse were found on the Project site during field review activities conducted in January 2020.

A records search was conducted in January 2020, which revealed 52 cultural resource studies previously conducted within one mile of the proposed Project, none of which included any portion of the Project site. Although no resources have been recorded within the Project area, 34 have been documented within one mile, including archaeological (prehistoric bedrock milling slicks and prehistoric bedrock milling stations) and built environment (historic residences, a ranch complex, and former military barracks) resources. The nearest prehistoric resource is a bedrock milling feature (33-013836/CA-RIV-007563) approximately 250 feet east of the Project site.

Although no cultural resources have been previously documented within or adjacent to the Project site and survey results were negative, due to the poor surface visibility and the presence of more than 25 prehistoric resources within a mile, the Project site retains potential for surface and subsurface resources. As such, **Mitigation Measure CUL-1** shall be implemented to reduce any historical resources that may be uncovered on site during Project construction activities.

Mitigation Measures

CUL-1: Archaeological and Paleontological Monitoring. At least 30 days prior to application for a grading permit and before any grading, excavation, and/or ground-disturbing activities take place, the developer/applicant shall retain a Secretary of Interior Standards-qualified archaeological monitor to monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources.

1. The project archaeologist, in consultation with consulting tribes, the Developer, and the City, shall develop an Archaeological Monitoring Plan to address the details, timing, and responsibility of all archaeological and cultural activities that will occur on the project site. Details in the plan shall include:
 - a. Project grading and development scheduling;
 - b. The development of a schedule in coordination with the developer/applicant and the project archaeologist for designated Native American Tribal Monitors from the consulting tribes during grading, excavation, and ground-disturbing activities on the site, including the scheduling, safety requirements, duties, scope of work, and Native American Tribal Monitors' authority to stop and redirect grading activities in coordination with all project archaeologists;
 - c. The protocols and stipulations that the Applicant, tribes, and project archaeologist/paleontologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits, or nonrenewable paleontological resources that shall be subject to a cultural resources evaluation;
 - d. Treatment and final disposition of any cultural and paleontological resources, sacred sites, and human remains if discovered on the project site; and

e. The scheduling and timing of the Cultural Sensitivity Training noted in Mitigation Measure CUL-4 .				
Implementation of the proposed Project would result in a less than significant impact with mitigation incorporated directly, indirectly, or cumulatively to a historical resource pursuant to §15064.5 of the <i>CEQA Guidelines</i> .				
b. Cause a substantial adverse change in the significance of an archeological resource pursuant to § 15064.5 of the <i>CEQA Guidelines</i> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5b. Response: (Source: GP 2025 FPEIR Figure 5.5-1 - Archaeological Sensitivity and Figure 5.5-2 – Prehistoric Cultural Resources Sensitivity, Appendix D – Cultural Resources Study; Cultural Resources Assessment Lurin Obsidian Tract Project, February 2020, Appendix D of this IS/MND)</p> <p>Less Than Significant with Mitigation Incorporated. A records search was conducted in January 2020, which revealed 52 cultural resource studies previously conducted within one mile of the proposed Project, none of which included any portion of the Project site. Although no resources have been recorded within the Project area, 34 have been documented within one mile, including archaeological (prehistoric bedrock milling slicks and prehistoric bedrock milling stations) and built environment (historic residences, a ranch complex, and former military barracks) resources. The nearest prehistoric resource is a bedrock milling feature (33-013836/CA-RIV-007563) approximately 250 feet east of the Project site.</p> <p>The proposed Project would be required to comply with all applicable regulations protecting archaeological resources and would be conditioned to cease excavation or construction activities if archaeological resources are identified during execution of the Project. Implementation of Mitigation Measure CUL-1 would ensure that the proposed Project will comply with applicable regulations protecting undiscovered archaeological resources on the site. Therefore, impacts related to previously undiscovered archaeological resources would be less than significant with mitigation incorporated directly, indirectly, and cumulatively.</p>				
c. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>5c. Response: (Source: GP 2025 FPEIR Figure 5.5-1 - Archaeological Sensitivity and Figure 5.5-2 – Prehistoric Cultural Resources Sensitivity; Cultural Resources Study; Cultural Resources Assessment Lurin Obsidian Tract Project, February 2020, Appendix D of this IS/MND)</p> <p>Less Than Significant. An on-site archaeological field survey was conducted in January 2020. No known human remains were present on the proposed Project site and there were no facts or evidence to support the idea that Native Americans or people of European descent are buried on the subject site. Conditions on site remain substantially unchanged. In the unlikely event that human remains are encountered during proposed Project grading, the proper authorities would be notified, and standard procedures for the respectful handling of human remains during earthmoving activities would be followed in accordance with State law.</p> <p>Consistent with the requirement of California Code of Regulations (CCR) Section 15064.5(e), if human remains are encountered, work within 25 feet of the discovery shall be redirected and the Riverside County Coroner notified immediately. State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code (PRC) Section 5097.98. If the remains are determined to be Native American, the County Coroner shall notify the Native American Heritage Commission (NAHC), which shall determine and notify a Most Likely Descendant (MLD). With the permission of the property owner, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Consistent with CCR Section 15064.5(d), if the remains are determined to be Native American and an MLD is notified, the City shall consult with the MLD as identified by the NAHC to develop an agreement for treatment and disposition of the remains. Implementation of the Condition of Approval for inadvertent Discovery of Human Remains would ensure enforcement of requirements if human remains are discovered on the site during Project construction activities.</p>				

Standard Condition of Approval for Inadvertent Discovery of Human Remains:

In the event that human remains (or remains that may be human) are discovered at the Project site during grading or earthmoving, the construction contractors, Project Archaeologist, and/or designated Native American Monitor shall immediately stop all activities within 100 feet of the find. The Project proponent shall then inform the Riverside County Coroner and the City of Riverside Community & Economic Development Department immediately, and the coroner shall be permitted to examine the remains as required by California Health and Safety Code Section 7050.5(b) unless more current State law requirements are in effect at the time of the discovery. Section 7050.5 requires that excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If human remains are determined as those of Native American origin, the Applicant shall comply with the state relating to the disposition of Native American burials that fall within the jurisdiction of the NAHC (PRC Section 5097). The coroner shall contact the NAHC to determine the most likely descendant(s). The MLD shall complete his or her inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The Disposition of the remains shall be overseen by the most likely descendant(s) to determine the most appropriate means of treating the human remains and any associated grave artifacts.

The specific locations of Native American burials and reburials will be proprietary and not disclosed to the general public. The County Coroner will notify the Native American Heritage Commission in accordance with California Public Resources Code 5097.98.

According to California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052). The disposition of the remains shall be determined in consultation between the Project proponent and the MLD. In the event that the Project proponent and the MLD are in disagreement regarding the disposition of the remains, State law will apply and the median and decision process will occur with the NAHC (see Public Resources Code Section 5097.98(e) and 5097.94(k)).

Compliance with these provisions and implementation of **the standard Condition of Approval** would ensure that any potential impacts to unknown buried human remains would be **less than significant** by ensuring appropriate examination, treatment, and protection of human remains as required by State law.

6. ENERGY

Would the project:

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

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6a. Response: (Source: California Code of Regulations Title 24, Part 6 and Part 24, SCAQMD, Project Plan Set; SCE 2017 Power Content Label https://www.sce.com/sites/default/files/inline-files/2017PCL_0.pdf; SCE Energy Data-Reports and Compliance <https://www.sce.com/regulatory/energy-data---reports-and-compliances>)

Less Than Significant Impact. Riverside Public Utilities (RPU) Electric Service, as shown in Figure 5.16-7 of the City of Riverside 2025 General Plan FEIR, would provide electric service to the Project site. The RPU was established in 1895 and includes 90 miles of transmission lines and 1,200 miles of distribution lines within an 80-square mile service area. In the 2016/2017 fiscal year for RPU, the average annual electricity usage per residential customer equated to 7,519 kWh.

The proposed Project would include site preparation and development of a Planned Residential Development consisting of 41 single-family residential units, a lot for a park, and lots for water quality management plan basins. The increase in residential units on the site would generate a minimal increase in energy demand from the RPU. To conserve energy usage, the proposed Project would comply with Building Energy Efficient Standards included in Title 24 of the CCR, which requires new residential development to incorporate energy efficiency standards into the proposed Project design. The Project would be required to comply with 2019 Title 24 standards because its building construction phase would commence after January 1, 2020. The Project would include the following energy conservation standards during construction and into its design per the California Green Building Standards Code (Title 24, Part 11 and Part 6 of the California Code of Regulations):

- Mandatory reduction in indoor water use through compliance with specified slow rates for plumbing fixtures and fittings;
- Mandatory reduction in outdoor water use through compliance with a local water-efficient landscaping ordinance or the California Department of Water Resources' Model;
- Water Efficient Landscape Ordinance;
- 65 percent of construction and demolition waste must be diverted from landfills;
- Mandatory inspections of energy systems to ensure optimal working efficiency;
- Inclusion of electric vehicle charging stations within garages of the single-family residential units;
- Low-pollutant emitting exterior and interior finish materials, such as paints, carpets, vinyl flooring, and particle boards; and
- Installation of solar panels on single-family residential units.

During construction, the construction contractor would apply the requirements of the SCAQMD to ensure energy-efficient equipment and vehicles are used for the duration of construction. Implementation of these standards into the design features of the Project and during construction would minimize wasteful, inefficient, or unnecessary consumption of energy resources. Implementation of the proposed Project would have a **less than significant impact** directly, indirectly, or cumulatively on energy resources. No mitigation is required.

- b. Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

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6b. Response: (Source: California Code of Regulations Title 24, Part 6 and Part 24, SCAQMD, Project Plan Set; City of Riverside Economic Prosperity Action Plan and Climate Action Plan January 2016)

Less Than Significant Impact. The proposed Project would be designed to comply with the California Green Building Standards Code; Title 24, Part 6 of the California Code of Regulations; California Building Code and Energy Code standards,

as applicable to the type of use being developed on site. After January 1, 2020, residential development applications in California would be required to include solar panels for on-site renewable energy generation, as part of the statewide effort in becoming more energy efficient and generating cleaner energy options. The proposed Project would also comply with measures that are presented in the Riverside *Economic Prosperity Action Plan and Climate Action Plan January 2016* by implementing different design elements that increase energy efficiency. The measures and how the Project will comply are presented below:

- **Measure E-2: Shade Trees.** The applicant of the proposed project has prepared a Landscape Plan for the site, which includes shade trees in various locations where residential units would be located.
- **Measure SR-3: Utility Programs.** The proposed Project would be designed to support the City's utility programs to promote energy efficiency and the use of renewable energy.
- **Measure T-2: Bicycle Parking.** The applicant, as shown on the Site Design Plans, would develop bicycle parking areas in the common park areas of the site. Additionally, single-family residential units would be designed with garages where residents could store their bicycles.
- **Measure T-6: Density.** The density of the proposed Project is compliant with the zoning designations on the site. A Planned Residential Development (PRD) would be requested for the establishment of detached single-family residential units, private streets, and common open space. A Variance would also be requested by the applicant to allow a reduced perimeter setback.
- **Measure T-14: Neighborhood Electric Vehicle Programs.** The Project in itself would not offer a neighborhood electric vehicle program but would provide electric vehicle charging stations for residents in their garages to promote the use of electric vehicles and promote the City of Riverside in establishing neighborhood electric vehicle programs.
- **Measure W-1: Water Conservation and Efficiency.** The proposed Project would comply with the California Green Building Standards Code through implementation of fixture flow rates, standards for plumbing fixtures and fittings, and automatic irrigation systems utilizing weather and/or soil moisture-based irrigation controllers.

Based on the Project design features incorporated into the Project, the proposed Project would not conflict with or obstruct a state or local plan related to renewable energy or energy efficiency. Direct, indirect, or cumulative Project impacts would be **less than significant** and no mitigation is required.

7. GEOLOGY AND SOILS

Would the project:

a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

7i. Response: (Source: General Plan 2025 Figure PS-1 – Regional Fault Zones & General Plan 2025 FPEIR Appendix E – Geotechnical Report; Preliminary Geotechnical Investigation and Percolation Testing, TTM 37731, TTM 37732, and TTM 37733, Cole Avenue, Barton Street, and Obsidian Drive, May 28, 2019 Appendix E)

Less Than Significant Impact. The *Preliminary Geotechnical Investigation and Percolation Testing* (Appendix E) technical report prepared for the proposed Project contributes to the analysis in this section. The Project site does not lie within an “Earthquake Fault Zone” as defined by the State of California in the Alquist-Priolo Earthquake Fault Zoning Act. The mapped fault closest to the Project site is the San Jacinto Fault, approximately 13 miles to the northeast of the Project site. Therefore, the potential for ground rupture due to an earthquake beneath the site is considered low.

CCR Title 24, Part 2, the California Building Code (CBC), establishes minimum standards for building design in the State, and it is consistent with or more stringent than Uniform Building Code requirements. Local codes are permitted to be more restrictive than Title 24, but are required to be no less restrictive. The CBC is designed and implemented to improve building safety, sustainability, and consistency, and to integrate new technology and construction methods to construction projects throughout California. The CBC is published every three years and intervening Code Adoption Cycles produce supplement pages 18 months into each three-year period. All proposed amendments to California’s building standards are subject to a lengthy and transparent public participation process throughout each code adoption cycle.

Chapter 16 of the CBC regards General Design Requirements, includes regulations governing seismically resistant construction (Chapter 16, Division IV) and construction to protect people and property from hazards associated with excavation cave-ins and falling debris or construction materials. Chapter 18 and Appendix Chapter 33 regard site demolition, excavations, foundations, retaining walls, and grading, including requirements for seismically resistant design, foundation investigations, stable cut and fill slopes, and drainage and erosion control. The procedures and limitations for the design of structures are based on site characteristics, occupancy type, configuration, structural system height, and seismic zoning. Construction activities are subject to occupational safety standards for excavation, shoring, and trenching as specified in California Occupational Safety and Health Administration regulations (CCR Title 8).

State law requires the design and construction of new structures comply with current CBC requirements, which address general geologic, seismic (including ground shaking), and soil constraints for new buildings. Additionally, General Plan Policy PS-1.1 requires the City to ensure all new development in the City abides by the most recently adopted City and State seismic and geotechnical requirements.

Pursuant to State law, and in accordance with General Plan Policy PS-1.1, the proposed Project would be designed to resist seismic impacts in accordance with current CBC requirements and Title 16 (Buildings and Construction) of the Riverside Municipal Code (RMC). Prior to issuance of any entitlements, the City would review and approve plans to confirm that the siting, design, and construction of all single-family residential units (and associated structures) are in accordance with the regulations established in the CBC, City Building Code, and/or professional engineering standards appropriate for the seismic zone in which such construction may occur. Additionally, all grading plans would be subject to City review in accordance with RMC, Section 17.16.010. As required by RMC, Section 17/16.010, the recommendations cited in the Project-specific soils and geotechnical reports must be incorporated into the design of the site-specific grading plans, therefore, it is reasonable to conclude the appropriate Project-specific geotechnical recommendations would be reviewed and approved as part of the grading permit. Compliance with CBC regulations and implementation of recommended measures in Sections 8.1 through

8.14 of the Project-specific geotechnical study would ensure that Project impacts would be **less than significant** directly, indirectly, or cumulatively. No mitigation is required.

ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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7ii. Response: (Source: *General Plan 2025 FPEIR Appendix E – Geotechnical Report; Preliminary Geotechnical Investigation and Percolation Testing, TTM 37731, TTM 37732, and TTM 37733, Cole Avenue, Barton Street, and Obsidian Drive, May 28, 2019, Appendix E*)

Less Than Significant Impact. The Project site is located in a seismically active area that has historically been affected by generally moderate to occasionally high levels of ground motion. The site lies within 50 miles of several active faults (San Jacinto Fault, the closest, approximately 13 miles from the Project site); therefore, during the life of the Project, the property would most likely experience similar moderate to occasionally high ground shaking from these fault zones, as well as some background shaking from other seismically active areas of the Southern California region. The peak ground acceleration is anticipated to be 0.500 g, which equates to potentially severe ground shaking. No known active faults are known to cross through the site.

Design and construction in accordance with the current CBC requirements is anticipated to adequately address potential ground shaking effects on the newly developed 41 single-family residential units on the site. Pursuant to State law and in accordance with General Plan Policy PS-1.1, the 41 single-family residential units of the proposed Project would be designed to resist seismic impacts in accordance with current CBC requirements and Title 16 (Buildings and Construction) of the RMC. Prior to issuance of any permit(s), the City would review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the CBC, City Building Code, and/or professional engineering standards appropriate for the seismic zone in which such construction may occur. Additionally, grading plans would be subject to City review and approval in accordance with RMC, Section 17.16.010.

Because the proposed Project would comply with CBC regulations that protect habitable structures from seismic hazards and would implement recommended measures in Sections 8.1 through 8.14 of the Project-specific geotechnical study, direct, indirect, or cumulative impacts associated with strong seismic ground shaking would have a **less than significant impact**. No mitigation measures are required.

iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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7iii. Response: (Source: *Preliminary Geotechnical Investigation and Percolation Testing, TTM 37731, TTM 37732, and TTM 37733, Cole Avenue, Barton Street, and Obsidian Drive, May 28, 2019 Appendix E; General Plan 2025 FPEIR Figure 5.6-3 Generalized Liquefaction Zones*)

Less Than Significant Impact. According to *Figure 5.6-3 Generalized Liquefaction Zone* of the General Plan 2025 FPEIR, the Project site is not located in an area known for liquefaction. As part of the Project-specific geotechnical report (**Appendix E**), two borings were drilled to a maximum depth of approximately 23 feet below ground surface. Groundwater was not found in the two borings that were drilled on the Project site. Colluvium and Val Verde Tonalite Bedrock was encountered on the Project site; both of which are not conducive soil/geological features for liquefaction to occur. Based on results of the Project-specific geotechnical study, neither liquefaction nor seismic “dry-sand” settlement is a design issue with the proposed Project. Although the Project site would not be susceptible to liquefaction or settlement, the development would still be designed to meet CBC requirements, as described below.

Pursuant to State law and in accordance with General Plan Policy PS-1.1, the proposed Project would be designed to resist seismic impacts (including seismic-related ground failure and liquefaction) in accordance with current CBC requirements and Title 16 (Buildings and Construction) of the RMC. Prior to issuance of any permit(s), the City would review and approve plans to confirm that the siting, design and construction of all single-family residential units are in accordance with the regulations established in the CBC, City Building Code, and/or professional engineering standards appropriate for the seismic zone in which such construction may occur. Additionally, all grading plans would be subject to City staff review for regulatory compliance in accordance with RMC, Section 17.16.010. Proper engineering design and construction in conformance with the current CBC standards and Project-specific recommendations in Sections 8.1 through 8.14 of the Project-specific geotechnical

study would ensure that seismic-related ground failure, including liquefaction, would be reduced to **less than significant** levels directly, indirectly, and cumulatively. No mitigation is required.

iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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7iv. Response: (Source: *Preliminary Geotechnical Investigation and Percolation Testing, TTM 37731, TTM 37732, and TTM 37733, Cole Avenue, Barton Street, and Obsidian Drive, May 28, 2019 Appendix E; General Plan 2025 FPEIR Figure 5.6-1 Areas Underlain by Steep Slopes*)

Less Than Significant Impact. The Geology and Soils section of the City’s General Plan 2025 FPEIR identifies “areas of high susceptibility to seismically induced landslides and rock falls correspond to steep slopes in excess of 30 percent.” Figure 5.6-1 of the General Plan 2025 FPEIR indicates that the Project site is located on land identified as having a 0 to 10 percent slope. The Project-specific geotechnical report determined that landslides are not a design impact consideration at the Project site as the site is relatively topographically flat and lacks significant on-site or adjacent slopes.

The Project-specific geotechnical report indicates that proposed grading on the Project site would create fill, cut, and fill-over-cut slopes of up to 10 feet in height. In general, permanent graded cut slopes, fill slopes, and fill-over-cut slopes inclined no steeper than a 2:1 slope with vertical heights of 10 feet or less would possess Factors of Safety of 1.5 or greater and 1.1 or greater under pseudo-static loading. Prior to issuance of any permit(s), the City would review and approve grading plans to confirm that the siting, design and construction of all single-family residential units are in accordance with the regulations established in the appropriate CBC, City Building Code, and/or professional engineering standard(s). Proper engineering design and construction in conformance with the current CBC standards and Project-specific recommendations, in tandem with the relatively flat topographic relief of the site and surrounding areas, would ensure landslide-related impacts remain directly, indirectly, and cumulatively **less than significant**. No mitigation is required.

b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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7b. Response: (Source: *General Plan 2025 FPEIR Figure 5.6-1 – Areas Underlain by Steep Slope, Figure 5.6-4 – Soils, Table 5.6-B – Soil Types, Title 18 – Subdivision Code, Title 17 – Grading Code, and SWPPP; Preliminary Geotechnical Investigation and Percolation Testing, TTM 37731, TTM 37732, and TTM 37733, Cole Avenue, Barton Street, and Obsidian Drive, May 28, 2019 Appendix E; USDA Web Soil Survey Website <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>)*

Less Than Significant Impact. The Project site is occupied by the following soils: Fallbrook sandy loam, 8 to 15 percent slopes, eroded (FaD2); Fallbrook fine sandy loam, 2 to 8 percent slopes, eroded (FfC2); and, Fallbrook sandy loam, shallow, 15 to 35 percent slopes, eroded (FbF2). Although not encountered during site borings, undocumented fill associated with previously constructed buildings on the Project site are expected to be encountered on the southwestern portion of the site. Undocumented fill is expected to consist of silty sand sourced from locally derived colluvium and bedrock material. Colluvium (Qcol) was encountered across the Project site ranging between 1.5 to 6 feet in depth. These deposits generally consist of silty sand and silt. The materials associated with Colluvium are characterized as loose to very dense or soft to very stiff, and dry to moist. Val Verde Tonalite Bedrock (Kvt) was encountered underlying the Colluvium across the Project site. The granitic bedrock encountered is generally characterized as a weathered, moderately strong material that is medium to coarse grained. The granitic bedrock was found on the site at a depth between 2 to 7 feet.

Erosion and loss of topsoil could occur as a result of the Project. State and federal requirements call for the preparation and implementation of an SWPPP establishing erosion and sediment controls for construction activities. The Project must also comply with the National Pollutant Discharge Elimination System (NPDES) regulations. In addition, with the erosion control standards for which all development activity must comply (Title 18), the Grading Code (Title 17) also requires the implementation of measures designed to minimize soil erosion. Development of the project site would include incorporation of the recommended design measures of the geotechnical study in Sections 8.1 through 8.14. Compliance with State and federal requirements as well as with Titles 18 and 17 of the CBC would ensure that soil erosion or loss of topsoil impacts would be **less than significant** directly, indirectly, or cumulatively. No mitigation is required.

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>7c. Response: <i>(Source: General Plan 2025 Figure PS-1 – Regional Fault Zones, Figure PS-2 – Liquefaction Zones, General Plan 2025 FPEIR Figure PS-3 – Soils with High Shrink-Swell Potential, Figure 5.6-1 – Areas Underlain by Steep Slope, Figure 5.6-4 – Soils, Table 5.6-B – Soil Types, and Appendix E – Geotechnical Report; Preliminary Geotechnical Investigation and Percolation Testing, TTM 37731, TTM 37732, and TTM 37733, Cole Avenue, Barton Street, and Obsidian Drive, May 28, 2019 Appendix E)</i></p> <p>Less Than Significant Impact. The Project site is located within the Peninsular Ranges geomorphic province, which forms a broad, northwest-southeast trending mountain belt that extends from Baja California to the Lost Angeles/San Bernardino basins, and terminates against the Transverse Ranges. The Peninsular Ranges are primarily composed of Mesozoic granites and volcanic rocks. The Project site resides on granitic rocks, with a thin cover of colluvial deposits. Compliance with the City’s existing codes and the policies contained in the General Plan 2025 help to ensure that impacts related to geologic conditions are reduced to less than significant levels directly, indirectly, and cumulatively. No mitigation is required.</p> <p>Landslides: See response 7(a)(iv).</p> <p>Lateral Spreading: Adherence to the City’s Grading and Subdivision Codes as well as the California Building Code in the design of this Project would prevent lateral spreading The design features to prevent lateral spreading are retaining walls and the proposed residential units would be wood-framed structures with concrete slabs on grade yielding light foundation loads.</p> <p>Subsidence: The geotechnical study prepared for this Project indicates that the volumetric changes in earth quantities would occur when the site is excavated and on-site soil materials are replaced with compacted fill. It is estimated that the existing earth material would shrink up to approximately 0.3 percent. Based on the properties of the soil, subsidence could occur but, with adherence to the recommendations found in the geotechnical study, the impact would be reduced to less than significant levels. No mitigation is required.</p> <p>Liquefaction: See response 7(a)(iii)</p> <p>Collapse: Adherence to the City’s grading and building requirements would ensure that the Project site is adequately prepared to prevent the collapse of the graded pads and/or slopes.</p> <p>Pursuant to State law and in accordance with General Plan Policy PS-1.1, the proposed Project would be designed to resist impacts related to unstable geologic units or soils in accordance with current CBC requirements and Title 16 (Buildings and Construction) of the RMC. Prior to issuance of any entitlements, the City would review and approve plans to confirm that the siting, design and construction of single-family residential units are in accordance with the regulations established in the CBC, City Building Code, and/or professional engineering standards appropriate for the soil types on which such construction may occur. As stated in the Project-specific geotechnical report, additional geotechnical evaluation is required once grading plans, development plans, foundation plans, and structural loads become available. Upon further geotechnical evaluation, additional recommendations may be proposed by the geotechnical engineer, the implementation of which would be required pursuant to 2016 CBC regulations, RMC Title 16 (Buildings and Construction) and Title 17 (Grading), and General Plan Policy PS-1.1. Additionally, all grading plans would be subject to City staff review for regulatory compliance in accordance with RMC, Section 17.16.010. Because the proposed Project must comply with current CBC regulations that protect habitable structures from unstable geologic units or soils, direct, indirect, and cumulative impacts associated with unstable geologic units or soils would be less than significant. No mitigation is required.</p>				
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

7d. Response: (Source: General Plan 2025 FPEIR Figure 5.6-4 – Soils, Figure 5.6-4 – Soils, Table 5.6-B – Soil Types, Figure 5.6-5 – Soils with High Shrink-Swell Potential, Appendix E – Geotechnical Report, and California Building Code as adopted by the City of Riverside and set out in Title 16 of the Riverside Municipal Code; ; Preliminary Geotechnical Investigation and Percolation Testing, TTM 37731, TTM 37732, and TTM 37733, Cole Avenue, Barton Street, and Obsidian Drive, May 28, 2019 Appendix E)

Less Than Significant Impact. Expansive soils, defined under CBC, expand when wet and shrink when dry. The amount or type of clay present in soil determines its shrink-swell potential. As evaluated by the project-specific geotechnical study, on-site soils generally consist of silty sand and silt, and are considered expansive. These soils have an expansion index of 50.

Pursuant to State law and in accordance with General Plan Policy PS-1.1, the proposed Project would be designed to resist impacts related to expansive soils in accordance with current CBC requirements and Title 16 (Buildings and Construction) of the RMC. Prior to issuance of any entitlements, the City would review and approve plans to confirm that the siting, design and construction of single-family residential units are in accordance with the regulations established in the CBC, City Building Code, and/or professional engineering standards appropriate for the soil types on which such construction may occur. As stated in the Project-specific geotechnical report, additional geotechnical evaluation is required once grading plans, development plans, foundation plans, and structural loads become available. Upon further geotechnical evaluation, additional recommendations may be proposed by the geotechnical engineer, the implementation of which would be required pursuant to 2016 CBC regulations, RMC Title 16 (Buildings and Construction) and Title 17 (Grading), and General Plan Policy PS-1.1. Additionally, all grading plans would be subject to City staff review for regulatory compliance in accordance with RMC, Section 17.16.010. Because the proposed Project must comply with current CBC regulations that protect habitable structures from expansive soils, direct, indirect, and cumulative impacts associated with unstable geologic units or soils would be **less than significant**. No mitigation is required.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

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7e. Response: (Source: Project Set Plans)

No Impact. The proposed Project would develop an internal wastewater infrastructure system that would connect directly to existing wastewater infrastructure in adjacent roads. The proposed Project does not include the installation of septic tanks or alternative wastewater disposal systems in its design, as existing off-site sewer connections are available. **No impact** directly, indirectly, or cumulatively would occur with implementation of the proposed Project. No mitigation is required.

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

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7f. Response: (Source: General Plan 2025 Policy HP-1.3; Project Plan Set)

Less Than Significant Impact. The project-specific geotechnical report that was prepared for the project indicated that the site is underlain by undocumented fill (afu), Colluvium (Qcol), overlying Val Verde Tonalite Bedrock (Kvt) granitic bedrock.

According to the General Plan 2025, as of 2004, the area south of Mockingbird Canyon Reservoir, 4.66 miles southeast of the Project site, is the only portion of the City considered as a place of paleontological importance. Accordingly, the Project site is categorized as having a *low potential* to yield paleontological resources.

This category includes sedimentary rock units that: (1) are potentially fossiliferous but have not yielded significant fossils in the past; (2) have not yet yielded fossils but possess a potential to contain fossil remains; or (3) contain common and/or widespread invertebrate fossils if the taxonomy, phylogeny, and ecology of the species contained in the rock are well understood. Sedimentary rocks expected to contain vertebrate fossils are not placed in this category because vertebrates are generally rare and found in more localized strata. Rock units designated as low potential generally do not require monitoring and mitigation during grading and excavation. However, as excavation for construction gets underway, it is possible that new

and unanticipated paleontological resources might be encountered. If the resource is determined to be significant, monitoring and mitigation are required during grading and excavation from that time on.

Due to the prior grading activities on site and surface disturbance required to develop the previous single-family residential unit, the likelihood of encountering subsurface paleontological resources during excavation for the proposed Project is low. In accordance with State law, the proposed Project would be required to comply with Section 5097.5 of the California PRC and California Administrative Code, Title 14, Section 4307, which state that no person shall remove, injure, deface or destroy any object of paleontological, archaeological, or historical interest or value. Penal Code Section 622.5 establishes as a misdemeanor the willful injury, disfiguration, defacement, or destruction of any object or thing of paleontological interest or value, whether situated on private or public lands. Finally, Section 17.28.010(H)(3) of the RMC enables the City to require the project applicant to make reasonable effort to preserve or mitigate impacts to any affected significant or unique paleontological resource. Pursuant to Section 17.28.010(H)(3) of the RMC, the City's Community & Economic Development Department may inspect construction activities on site for compliance with project conditions of approval, including protection of paleontological resources.

Since the proposed Project footprint is within a previously cleared site at one time used for agricultural activities and developed with a single-family residential unit, there is no indication that paleontological resources occur therein. The proposed Project would be required to comply with all applicable regulations protecting paleontological resources and would be conditioned to cease excavation or construction activities if paleontological resources are identified during execution of the Project. Therefore, impacts related to previously undiscovered paleontological resources would be **less than significant** directly, indirectly, and cumulatively. No mitigation is required.

8. GREENHOUSE GAS EMISSIONS

Would the project:

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



8a. Response: (*Source: Air Quality and Greenhouse Gas Analysis Obsidian Development, November 2020 (Appendix B); SCAQMD Greenhouse Gases CEQA Significance Thresholds Working Group Meeting No. 15. September 28, 2010, City of Riverside Restorative Growthprint – Climate Action Plan RRG, 2015*)

Less Than Significant Impact. *State CEQA Guidelines* Section 15064(b) provides that the “determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data,” and further states that an “ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting.”

Currently, there is no statewide greenhouse gas (GHG) emissions threshold used to determine potential GHG emissions impacts of a project. The SCAQMD uses the following tiered approach for evaluating GHG emissions for development projects where the SCAQMD is not the lead agency.

Tier 1 Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.

Tier 2 Consider whether or not the proposed project is consistent with a locally adopted GHG reduction plan that has gone through public hearing and CEQA review, that has an approved inventory, includes monitoring, etc. If not, move to Tier 3.

Tier 3 Consider whether the proposed project generates GHG emissions in excess of screening thresholds for individual land uses. A 10,000-metric ton of carbon dioxide equivalent per year (metric ton [MT] CO₂e/year) threshold for industrial uses would be recommended for use by all lead agencies. Under Option 1, separate screening thresholds are proposed for residential projects (3,500 MT CO₂e/year), commercial projects (1,400 MT CO₂e/year), and mixed-use projects (3,000 MT CO₂e/year). Under Option 2, a single numerical screening threshold of 3,000 MT CO₂e/year would be used for all non-industrial projects. If the project generates emissions in excess of the applicable screening threshold, move to Tier 4.

Tier 4 Establishes a decision tree approach that includes compliance options for projects that have incorporated design features into the project and/or implement GHG mitigation measures.

- Efficiency Target (2020 Targets).
 - 4.8 MT CO₂e per service population (the number of jobs and the number of residents provided by a project) for project-level threshold (land use emissions only).
 - 6.6 MT CO₂e per service population for plan-level thresholds (all sectors).
- Efficiency Target (2035 Targets).
 - 3.0 MT CO₂e per service population for project-level threshold.
 - 4.1 MT CO₂e per service population for plan-level threshold.

If a project fails to meet any of these emissions reduction targets and efficiency targets, the project would move to Tier 5.

Tier 5 Consider the implementation of CEQA mitigation (including the purchase of GHG offsets) to reduce the project efficiency target to Tier 4 levels.

In 2014, the City of Riverside was one of 12 cities that collaborated with the Western Riverside Council of Governments on a Subregional Climate Action Plan (CAP) that includes 36 measures to guide the City’s GHG reduction efforts through 2020. Through the Western Riverside Council of Governments Subregional Climate Action Plan process, the City has a Climate

Action Plan that identifies emissions target of 2,224,908 MT CO₂e, which is 26.4 percent below the City’s 2007 baseline and 15 percent below 2010 emissions. To further develop local GHG reduction measures for the Riverside Restorative Growthprint Economic Prosperity Action Plan and CAP, the City conducted a detailed assessment of local strategies and actions related to the measures identified in the Subregional CAP and expanded the discussion and analysis with respect to implementation (particularly post-2020), costs and funding, performance metrics, and local co-benefits. Importantly, the discussions identify local economic and entrepreneurship opportunities that can be integrated with local, regional, and global greenhouse gas reductions (e.g., the development of green enterprise zones). The Project is consistent with the Riverside Restorative Growthprint Economic Prosperity Action Plan and CAP and Assembly Bill (AB) 32. Nonetheless, for informational purposes, the Project’s construction- and operational-related GHG emissions have been identified below. The Tier 3, Option 1 approach for residential projects (3,000 metric tons of CO₂e) is utilized in order to determine the significance for the proposed Project’s GHG emissions. Overall, the following activities associated with the proposed Project could directly or indirectly contribute to the generation of GHG emissions.

Construction Activities: During construction of the Project, GHGs would be emitted through the operation of construction equipment and from worker and vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-fuel based fuels creates GHGs (e.g., carbon dioxide (CO₂), methane [CH₄] and nitrous oxide [N₂O]). Furthermore, CH₄ is emitted during the fueling of heavy equipment.

Gas, Electricity, and Water Use: Natural gas use results in the emission of two GHGs: CH₄ (the major component of natural gas) and CO₂ (from combustion of natural gas). Electricity use can result in GHG production if the electricity is generated by combusting fossil fuel. California’s water conveyance system is energy-intensive. Preliminary estimates indicate that the total energy used to pump and treat this water exceeds 6.5 percent of the total electricity used in the State per year. Title 24 standards have been documented to reduce energy usage (e.g., for lighting, heating, cooling, ventilation, and water heating) and associated GHG emissions.

Solid Waste Disposal: Solid waste generated by the Project could contribute to GHG emissions in a variety of ways. Landfilling and other methods of disposal use energy for transporting and managing the waste, and they produce additional GHGs to varying degrees. Landfilling, the most common waste management practice, results in the release of CH₄ from the anaerobic decomposition of organic materials. CH₄ is 25 times more potent a GHG than CO₂. However, landfill CH₄ can also be a source of energy. In addition, many materials in landfills do not decompose fully and the carbon that remains is sequestered in the landfill and not released into the atmosphere.

Motor Vehicle Use: Transportation associated with the proposed Project would result in GHG emissions from the combustion of fossil fuels in daily automobile and truck trips.

Short-Term (Construction) Emissions. The Project construction emissions were calculated using CalEEMod, which calculates emissions from off-road equipment usage and on-road vehicle travel associated with haul, delivery, and construction worker trips. GHG emissions during construction were forecast based on the proposed construction schedule and applying the mobile source derived from the SCAQMD-recommended CalEEMod. The calculations of the emissions generated during the Project construction activities reflects the types and quantities of construction equipment that would be used to grade and excavate the Project site, construct the residential units and related improvements, and plant new landscaping within the Project site. **Table H: Construction Greenhouse Gas Emissions** lists the CO₂ emissions for each of the planned construction phases.

The emissions detailed in **Table H** would be generated from the proposed Project constructed in compliance with the latest California Department of Resources Recycling and Recovery Sustainable (Green) Building Program regulations. Specifically, at least 50 percent of all construction materials (including, but not limited to, soil, mulch, vegetation, concrete, lumber, metal, and cardboard) shall be recycled/reused and “green building materials” (e.g., those materials that are rapidly renewable or resource-efficient, and recycled and manufactured in an environmentally friendly way) shall be used for at least 10 percent of the Project.

Table H: Construction Greenhouse Gas Emissions

Construction Phase	Peak Annual Emissions (MT/yr)				Total Emissions per Calendar Year (MT/CO ₂ e)
	CO ₂	CH ₄	N ₂ O	CO ₂ e	
Demolition	35.75	< 0.01	0	35.99	549.33
Site Preparation	17.61	< 0.01	0	17.74	
Grading	84.69	0.03	0	85.36	
Building Construction	383.68	0.08	0	385.82	
Paving	21.43	< 0.01	0	21.60	
Architectural Coatings	2.83	< 0.01	0	2.83	
Total Construction Emissions Amortized over 30 years					18.31

Source: LSA, *Air Quality and Greenhouse Gas Analysis Technical Report*, Table M, pg. 47, February 2020.

CH₄ = methane

CO₂ = carbon dioxide

CO₂e = carbon dioxide equivalent

MT/CO₂e = metric tons of carbon dioxide equivalent

MT = metric tons

N₂O = nitrous oxide

Long-Term (Operational) Emissions. Long-term operation of the proposed Project would generate GHG emissions from area and mobile sources and indirect emissions from stationary sources associated with energy consumption. Mobile-source emissions of greenhouse gases would include Project-generated vehicle trips associated with on-site uses. Area-source emissions would be associated with activities (e.g., landscaping and maintenance of proposed land uses, natural gas for heating, and other sources). Increases in stationary-source emissions would also occur at off-site utility providers as a result of demand for electricity, natural gas, and water by the proposed Project. Construction emissions were amortized over a 30-year period and added to the annual operational phase GHG emissions. The GHG emission estimates presented in **Table I: Operational Greenhouse Gas Emissions** detail the emissions associated with the level of development envisioned by the proposed Project.

Table I: Operational Greenhouse Gas Emissions

Source	Pollutant Emissions (MT/yr)					
	Bio-CO ₂	NBio-CO ₂	Total CO ₂	CH ₄	N ₂ O	CO ₂ e
Construction Emissions Amortized over 30 Years	0	18.14	18.14	< 0.01	0	18.25
Operational Emissions						
Area	0	0.69	0.69	< 0.01	0	0.71
Energy	0	172.24	172.24	< 0.01	< 0.01	172.85
Mobile	0	543.24	543.24	0.03	0	543.88
Waste	9.74	0	9.74	0.58	0	24.12
Water	0.68	18.29	18.97	0.07	< 0.01	21.25
Total Project Emissions	10.42	752.60	763.01	0.67	0	781.06
SCAQMD Tier 3 Threshold						3,000
Significant?						No

Source: LSA, *Air Quality and Greenhouse Gas Analysis Technical Report*, Table N, pg. 48, February 2020.

Bio-CO₂ = biologically generated CO₂

CO₂ = carbon dioxide

MT/yr = metric tons per year

NBio-CO₂ = non-biologically generated CO₂

CH₄ = methane

CO₂e = carbon dioxide equivalent

N₂O = nitrous oxide

SCAQMD = South Coast Air Quality Management District

The remaining CO₂e emissions are primarily associated with building heating systems and increased regional power plant electricity generation due to the proposed Project's electrical demands. At present, there is a federal ban on chlorofluorocarbons; therefore, it is assumed the Project would not generate emissions of chlorofluorocarbons. The Project may emit a small amount of hydrofluorocarbons from leakage and service of refrigeration and air-conditioning equipment and from disposal at the end of the life of the equipment. However, the details regarding refrigerants to be used at the Project site are unknown at this time. Perfluorocarbons and sulfur hexafluoride are typically used in industrial applications, which would

not occur on the Project site. Therefore, the Project is not anticipated to contribute significant emissions of these additional GHGs.

Because climate change impacts are cumulative in nature, no typical single project can result in emission of such a magnitude that it, in and of itself, would be significant on a project basis. The Project's GHG emissions of 781.06 MT CO₂e are less than the SCAQMD-recommended interim Option 1 threshold of 3,000 MT CO₂e for all land use types.

The emissions detailed in **Table I** would be generated from the proposed Project operated in compliance with the latest California Building Code's Title 24 energy standards. Specifically, the Project design would incorporate increased insulation such that heat transfer and thermal bridging is minimized, as well as ENERGY STAR® or better rated windows, space heating and cooling equipment, light fixtures, appliances, or other applicable electrical equipment. All on-site lighting would be energy efficient, and daylight would be utilized as an integral component of residential development lighting systems. On-site landscaping would be drought tolerant and incorporate water-efficient irrigation systems and devices such as soil moisture-based irrigation controls. Additionally, buildings would be designed to be water efficient and incorporate water-efficient fixtures and appliances, including low-flow faucets and toilets. Furthermore, Project design would restrict watering methods to prohibit systems that apply water to non-vegetated surfaces and to control runoff. To facilitate and encourage recycling to reduce landfill-associated emissions, among others, residents would have bins for both recycling and solid waste generation.

Furthermore, this analysis considers GHG emission significance by determining the Project's consistency with the policies and goals in the Riverside Restorative Growthprint Economic Prosperity Action Plan and Climate Action Plan, Assembly Bill 32, and Executive Order S-3-05. As discussed in Checklist Response 8b, below, the Project would be consistent with the strategies and goals from the Riverside Restorative Growthprint Economic Prosperity Action Plan and Climate Action Plan and would not conflict with Assembly Bill 32, which establishes a goal of reducing GHG emissions to 1990 levels by the year 2020, or Executive Order S-3-05, which establishes a goal of reducing GHG emissions 80 percent below 1990 levels by 2050. In order to ensure that the proposed Project complies with and would not conflict with or impede the implementation of reduction goals identified by the City or State, the proposed Project would comply with the latest California Building Code's Title 24 energy standards regarding the energy efficiency of buildings, appliances, and lighting, which would reduce the Project's electricity demand by enhancing the design and construction of proposed buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices.

As detailed in detailed in **Tables H and I**, the Project's greenhouse gas emissions (781.06 metric tons of CO₂e) would not exceed the SCAQMD-recommended Tier 3, Option 1 threshold of 3,000 MT CO₂e. Accordingly, the proposed Project would not conflict with or impede implementation of the reduction goals identified in AB 32, EO S-3-05, and other strategies to help reduce GHGs to the level proposed by the Governor. Therefore, the proposed Project would not generate GHG emissions, directly, indirectly, or cumulatively that would have a significant impact on the environment. Impacts would be **less than significant** and no mitigation is required.

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



8b. Response: (Source: *Air Quality and Greenhouse Gas Analysis Obsidian Development, November 2020 (Appendix B)*)

Less Than Significant Impact. In 2014, the City was one of 12 that collaborated with the Western Riverside Council of Governments on a Subregional Climate Action Plan that includes 36 measures to guide the City's greenhouse gas reduction efforts through 2020. Through the Western Riverside Council of Governments Subregional Climate Action Plan process, the City has committed to a 2020 emissions target of 2,224,908 MT CO₂e, which is 26.4 percent below the City's 2007 baseline and 15 percent below 2010 emissions. This represents a reduction of 779,304 MT CO₂e from the City's 2020 business-as-usual forecast. The City is aiming for a 2035 emissions target of 1,542,274 MT CO₂e, which is 49 percent below the 2007 baseline and represents a reduction of 2,120,931 MT CO₂e from the 2035 business-as-usual forecast. The City adopted its Riverside Restorative Growthprint Economic Prosperity Action Plan and Climate Action Plan in January 2016.

The Riverside Restorative Growthprint Economic Prosperity Action Plan and Climate Action Plan expands upon the efforts of

the Western Riverside Council of Governments Subregional Climate Action Plan, employing local measures to help the City achieve deep greenhouse gas reductions through the year 2035. To further develop local GHG reduction measures for the Riverside Restorative Growthprint Economic Prosperity Action Plan and Climate Action Plan, the City conducted a detailed assessment of local strategies and actions related to the measures identified in the Subregional CAP and expanded the discussion and analysis with respect to implementation (particularly post-2020), costs and funding, performance metrics, and local co-benefits. Importantly, the discussions identify local economic and entrepreneurship opportunities that can be integrated with local, regional, and global greenhouse gas reductions (e.g., the development of green enterprise zones).

Table J: Riverside Restorative Growthprint Action Plan Emission Reduction Strategies Consistency lists the applicable strategies and goals from the Riverside Growthprint Climate Action Plan and identifies how the proposed Project achieves compliance.

Table J: Riverside Restorative Growthprint Climate Action Plan Emission Reduction Strategies Consistency

Measure/Regulation	Project Consistency
State and Regional Regulations	
Energy	
California Building Energy Efficiency Standards (Title 24, Part 6). Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California (including both investor-owned and publicly owned utilities).	Consistent. The proposed Project will comply with the requirements of the 2019 California Building Energy Efficiency Standards (Title 24, Part 6) including measures to incorporate energy-efficient building design features.
Water	
Water Use Efficiency. Reduce per capita water use by 20% by 2020. Senate Bill (SB) X7-7 is part of a California legislative package passed in 2009 that requires urban retail water suppliers to reduce per-capita water use by 10% from a baseline level by 2015, and to reduce per capita water use by 20% by 2020. Green accountability performance (GAP) Goal 16 directly aligns with SB X7-7. In Southern California, energy costs and GHG emissions associated with the transport, treatment, and delivery of water from outlying regions are high. Therefore, the region has extra incentive to reduce water consumption. While this is considered a state measure, it is up to the local water retailers, jurisdictions, and water users to meet these targets.	Consistent. The proposed Project would comply with the requirements of Title 19 – Article VIII – Chapter 19.570 – Water Efficient Landscaping and Irrigation, including measures to increase water use efficiency. Water-efficient irrigation systems and devices and drought-tolerant landscaping would be installed on the Project site.
Solid Waste	
Construction and Demolition Waste Diversion. Meet mandatory requirement to divert 50% of C&D waste from landfills by 2020 and exceed requirement by diverting 90% of C&D waste from landfills by 2035.	Consistent. In compliance with CalGreen requirements, at least 65 percent of all nonhazardous construction waste generated by the proposed Project would be recycled and/or salvaged (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard). Furthermore, 100 percent of excavated soil shall be reused or recycled.
Transportation	
Pavley and Low Carbon Fuel Standard (LCFS). ARB identified this measure as a Discrete Early Action Measure. This measure would reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020.	Consistent. The Project does not involve the manufacture, sale, or purchase of vehicles. However, construction vehicles that operate within and access the Project site will comply with Pavley and Low Carbon Fuel Standard (LCFS).
Riverside Restorative Growthprint Climate Action Plan Measures	
Energy Measures	
E-1: Traffic and Streetlights. Replace traffic and streetlights with high-efficiency bulbs.	Not Applicable. This objective is aimed at government agencies, not private developers. Nonetheless, the Project would comply with applicable energy efficiency requirements related to lighting detailed in the Green

	Building Standards Code (Title 24, California Code of Regulations).
E-2: Shade Trees Strategically. Plant trees at new residential developments to reduce the urban heat island effect.	Consistent. The Project would include trees and vegetation throughout the Project site in various locations.
E-3: Local Utility Programs. Electricity Financing and incentives for business and home owners to make energy efficient, renewable energy, and water conservation improvements.	Not Applicable. This objective is aimed at government agencies, not private developers. Nonetheless, the Project would comply with applicable energy efficiency requirements detailed in the CalGreen (Title 24, CCR).
E-4: Renewable Energy Production on Public Property. Large scale renewable energy installation on publicly owned property and in public rights of way.	Not Applicable. This objective is aimed at government agencies, not private developers.
E-5: UCR Carbon Neutrality. Collaborate with UCR to achieve a carbon neutral campus.	Not Applicable. This objective is aimed at government agencies, not private developers.
E-6: RPU Technology Grants. RPU grant programs to foster research, development and demonstration of innovative solutions to energy problems.	Not Applicable. This objective is aimed at government agencies, not private developers.
Transportation Measures	
T-1: Bicycle Infrastructure Improvements. Expand on-street and off-street bicycle infrastructure, including bicycle lanes and bicycle trails.	Consistent. The Project would comply with RMC Chapter 10.64.240. Bicycle accessibility would be possible through shared bike lanes in roads on Lurin Avenue, Wood Road, and Taft Street. The City allows bicycles to travel on roads via shared lanes, in areas without designated bicycle lanes.
T-2: Bicycle Parking. Provide additional options for bicycle parking.	Consistent. The Project would comply with RMC Chapter 10.64. Neighborhood parks will provide bicycle posts, or in some cases, a bicycle corral, to afford the least obstruction to pedestrian traffic.
T-3: End of Trip Facilities. Encourage use of non-motorized transportation modes by providing appropriate facilities and amenities for commuters.	Not Applicable. This objective is aimed at large employment centers or commercial land uses.
T-4: Promotional Transportation Demand Management. Encourage Transportation Demand Management strategies.	Not Applicable. This objective is aimed at large employment centers with 100 or more employees. This Project would not staff any on-site employees.
T-5: Traffic Signal Coordination. Incorporate technology to synchronize and coordinate traffic signals along local arterials.	Not Applicable. This objective is aimed at government agencies, not private developers.
T-6: Density. Improve jobs-housing balance and reduce vehicle miles traveled by increasing household and employment densities.	Consistent. The Project would provide a residential density of 4.08 dwelling units per acre and would increase the supply of housing units in Riverside by 41 dwelling units, adding approximately 117 residents to the City population. By providing housing units within 5 miles of downtown Riverside, the Project would improve the jobs-housing balance and help reduce vehicle miles traveled by local residents.
T-7: Mixed-Use Development. Provide for a variety of development types and uses.	Not Applicable. The Project is a single-family residential development.
T-8: Pedestrian-Only Areas. Encourage walking by providing pedestrian-only community areas.	Consistent. The neighborhood provides a pedestrian network along streets. Sidewalks are required on all arterial and collector streets. Inclusion of plans for pedestrian access and circulation for this Project would be submitted for review and approval as a condition of the City's Design Review Process. The Project would also be required to comply with RMC Chapter 19.580.080G regarding pedestrian access and circulation.
T-9: Limit Parking Requirements for New Development. Reduce requirements for vehicle parking in new development projects.	Not Applicable. The proposed Project would meet the minimum parking spaces for residences.

T-10: High Frequency Transit Service. Implement bus rapid transit service in the subregion to provide alternative transportation options.	Not Applicable. This objective is aimed at government agencies, not private developers. However, the proposed Project would be located a half-mile from the Wood Street bus stop, which would encourage employees and residents to use transit.
T-11: Voluntary Transportation Demand Management. Encourage employers to create TDM programs for their employees	Not Applicable. This objective is aimed at large employment centers with 100 or more employees. The Project would not have employees and would not be considered a large employment center.
T-12: Accelerated Bike Plan. Accelerate the implementation of all or specified components of a jurisdiction's adopted bike plan.	Not Applicable. This objective is aimed at government agencies, not private developers. However, the proposed Project would not obstruct the implementation of the adopted bike plan.
T-13: Fixed Guideway Transit. By 2020, complete feasibility study and by 2025 introduce a fixed route transit service in the jurisdiction.	Not Applicable. This objective is aimed at government agencies, not private developers.
T-14: Neighborhood Electric Vehicle Programs. Implement development requirements to accommodate Neighborhood Electric Vehicles and supporting infrastructure.	Consistent. The Project would provide electrical infrastructure for electric vehicle charging station in compliance with the 2019 Green Building Energy Efficiency Standard.
T-15: Subsidized Transit. Increase access to transit by providing free or reduced passes	Not Applicable. This objective is aimed at large employment centers with 100 or more employees and is not applicable to the Project.
T-16: Bike Share Program. Create nodes offering bike sharing at key locations throughout the City.	Not Applicable. This objective is aimed at government agencies, not private developers.
T-17: Car Share Program. Offer Riverside residents the opportunity to use car sharing to satisfy short-term mobility needs.	Not Applicable. This policy is aimed at businesses in the City of Riverside and not residential developments.
T-18: SB 743 - Alternative to level of service. Use SB 743 to incentivize development in the downtown and other areas served by transit.	Not Applicable. This objective is aimed at government agencies, not private developers. Furthermore, the Project is not located in a transit priority area.
T-19: Alternative Fuel & Vehicle Technology and Infrastructure. Promote the use of alternative fueled vehicles such as those powered by electric, natural gas, biodiesel, and fuel cells by Riverside residents and workers.	Consistent. The proposed Project would be required to be consistent with applicable EV charging station requirements detailed in CALGreen (Title 24, CCR). As such, the Project would be equipped with the EV charging infrastructure to support charging stations within each dwelling unit.
T-20: Eco-Corridor/Green Enterprise Zone. Create a geographically defined area(s) featuring best practices in sustainable urban design and green building focused on supporting both clean-tech and green businesses.	Not Applicable. This objective is aimed at government agencies, not private developers.
Water Measure	
W-1: Water Conservation and Efficiency. Reduce per capita water use by 20 percent by 2020.	Consistent. The proposed Project would be required to be consistent with applicable water efficiency requirements detailed in the Green Building Standards Code (Title 24, California Code of Regulations). As such, the Project would be equipped with low-flow plumbing fixtures that reduce water use.
Solid Waste Measures	
SW-1: Yard Waste Collection. Provide green waste collection bins community-wide.	Consistent. The Project would comply with applicable solid waste requirements.
SW-2: Food Scrap and Compostable Paper Diversion. Divert food and paper waste from landfills by implementing commercial and residential collection program.	Consistent. The Project would be required to participate in applicable waste diversion programs. The Project would also be subject to all applicable State and City requirements for solid waste reduction.
Food, Agriculture, and Urban Forest Measures	
A-1: Local Food and Agriculture. Promote local food and agricultural programs.	Not Applicable. This objective is aimed at government agencies, not private developers.

A-2: Urban Forest. Augment City's Urban and Community Forest Program to include an Urban Forest Management Plan.

Consistent. The Project would be required to comply with the Orangecrest Specific Plan Landscape Requirements, the City Landscape Design Guidelines, and Chapter 13.06 of the RMC.

Source: LSA, *Air Quality and Greenhouse Gas Analysis Technical Report, Table O, pgs. 51 to 54, February 2020.*

The SCAQMD supports State, federal, and international policies to reduce levels of ozone depleting gases through its Global Warming Policy and rules and has established an interim GHG threshold. The Project would comply with the City's General Plan policies and CBC provisions designed to reduce GHG emissions. In addition, the Project would comply with all SCAQMD applicable rules and regulations during construction and, as demonstrated in the Climate Change Analysis, would not interfere with the State's goals of reducing GHG emission to 1990 levels by the year 2020 as stated in AB 32 and an 80 percent reduction in GHG emissions below 1990 levels by 2050 as stated in Executive Order S-3-05. Based upon the modeling for this Project and the discussion above, the Project would not conflict with any applicable plan, policy, or regulation related to the reduction in the emissions of GHG and thus a **less than significant impact** would occur directly, indirectly, and cumulatively in this regard.

9. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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9a. Response: (Source: General Plan 2025 Public Safety Element, GP 2025 FPEIR, California Health and Safety Code, Title 49 of the Code of Federal Regulations, California Building Code, Riverside Fire Department EOP, 2002 and Riverside Operational Area – Multi-Jurisdictional LHMP, 2004 Part 1, OEM’s Strategic Plan)

Less Than Significant Impact. Construction of the Project has the potential to create a hazard to the public or environment through the routine transportation, use, and disposal of construction-related hazardous materials such as fuels, oils, solvents, and other materials. These materials are typical materials delivered to construction sites. However, due to the limited quantities of these materials to be used by the proposed Project, they are not considered hazardous to the public at large. In accordance with the City’s Hazardous Materials Policy, the transport, use, and storage of hazardous materials during the construction and operation of the site would be conducted pursuant to all applicable local, State, and federal laws, and in cooperation with the County’s Department of Environmental Health. Title 49 of the Code of Federal Regulations (CFR) implemented by Title 13 of the CCR describes strict regulations for the safe transportation of hazardous materials. Compliance with all applicable local, State, and federal laws related to the transportation, use, and storage of hazardous materials would reduce the likelihood and severity of accidents during transit, use, and storage.

Once operational, the 41 single-family residential units on the Project site may store small quantities of hazardous materials on their private properties. However, due to the limited quantities of these materials to be used once the Project is operational, they are not considered hazardous to the public at large.

Compliance with all applicable local, State, and federal laws, including but not limited to Title 49 of the CFR implemented by Title 13 of the CCR, would ensure a **less than significant impact** directly, indirectly, and cumulatively from the routine transport, use, or disposal of hazardous materials. No mitigation is required.

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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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9b. Response: (Source: General Plan 2025 Public Safety Element, GP 2025 FPEIR Tables 5.7 A – D, California Health and Safety Code, Title 49 of the Code of Federal Regulations, California Building Code, City of Riverside’s EOP, 2002 and Riverside Operational Area – Multi-Jurisdictional LHMP, 2004 Part 1, OEM’s Strategic Plan)

Less Than Significant with Mitigation Incorporated. The Project site is vacant, except for a concrete foundation of a single-family residential building that was demolished between 2013 and 2014. Between 1948 and 1966, the Project site was utilized for agricultural use and between 2002 and 2005, the portions of the site being utilized for agriculture were demolished/removed. As the Project site has been historically used for agriculture, the probability of on-site soil containing pesticides and heavy metals cannot be precluded. If such hazardous materials are within the on-site soil, construction activities would have the potential to release pesticides and heavy metals in the air, potentially affecting adjacent and nearby sensitive receptors (i.e., the single-family residential unit neighborhood to the north, south, southwest, and southeast). In order to ensure that agricultural use-related hazardous materials are not present in the on-site soil, **Mitigation Measures HAZ-1 and HAZ-2** would be implemented to reduce impacts.

The concrete slab that would be removed from the Project site during construction has the potential to release crystalline silica dust as concrete typically contains quartz which has crystalline silica. During construction, as a standard condition, the construction contractor would require construction workers demolishing the concrete slab to use respirators and for dust suppression (adding water to the area) to be implemented. As no structures are located on site, asbestos-containing material and lead-based paint would not be encountered on the Project site.

Online research of government environmental regulatory databases where available, as well as a general cursory internet search of the Project site, for information indicative of a Recognized Environmental Condition (REC). The results indicated no REC was identified on the site pursuant to all of the databases that were researched. A summary of the findings of the regulatory database review with regard to sites identified as located within the American Society for Testing Materials specified search distance surrounding the Project site is provided below:

- **CORTESE List** – None.
- **Federal National Priority List (NPL)**: No NPL listings were identified within a one-mile radius of the Project site.
- **Federal Delisted NPL**: No DNPL listings were identified within a 0.5-mile radius of the Project site.
- **Federal Superfund Enterprise Management System (SEMS) (formerly Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS))**: No SEMS listings were identified within a 0.5-mile radius of the Project site.
- **Federal SEMS-ARCHIVE (former CERC-NFRAP)**: No SEMS-ARCHIVE listings were identified within a 0.5-mile radius of the Project site.
- **Federal Resource Conservation and Recovery Act Corrective Action Sites (Resource Conservation and Recovery Act-CORRACTS)**: No CORRACTS listings were identified within a one-mile radius of the Project site.
- **Federal Resource Conservation and Recovery Act-TSDF**: No TSD listings were identified within a 0.5-mile radius of the Project site.
- **State/Tribal Hazardous Waste Sites**: No SHWS listings were identified within a one-mile radius of the Project site on the EnviroStor database.
- **State/Tribal Landfill/Solid Waste Disposal Sites**: No SWF/LF listings were identified within a 0.5-mile radius of the Project site.
- **State/Tribal Leaking Storage Tanks**: No LUST listings were identified within a 0.5-mile radius of the Project site.
- No SLIC listings were identified within a 0.5-mile radius of the Project site.
- **State/Tribal Voluntary Cleanup Sites**: No VCP listing was identified within a 0.5-mile radius of the Project site.
- **State/Tribal Brownfields**: No brownfields listings were identified within a 0.5-mile radius of the Project site.

The EnviroStor Website was also researched to determine if the Project site or adjacent areas (within a 1-mile radius of the Project site) contain hazardous materials sites. The EnviroStor Website indicated two sites, Elementary School No. 32 (Krameria Avenue/Cole Avenue) and Proposed Citrus Heritage Middle School (southwest and southeast corner of Krameria Avenue and Chicago Avenue), where school clean-up sites were investigated. However, these sites are now inactive and the cleanup status was withdrawn as of July 14, 2004, for Elementary School No. 32 and no further action was required as of October 16, 2007, for Proposed Citrus Heritage Middle School. The Project site does not show up on any of the governmental regulatory database lists.

The Project may involve the use of hazardous materials but would comply with all applicable federal, State, and local laws and regulations pertaining to the transport, use, disposal, handling, and storage of hazardous waste. These regulations include, but are not limited to, Title 49 of the CFR implemented by Title 13 of the CCR for the safe transportation of hazardous materials, SCAQMD Rule 1403 for Asbestos-Containing Material, Code of Federal Regulations Chapter 29, Section 1926.62 and Title 8, and CCR Section 1532.1 for LBP. As condition of Project approval, the above-recommended actions would be implemented as part of the Project to reduce potential hazardous material releases. Compliance with all applicable federal, State, and local laws related to the transportation, use, and storage of hazardous materials, as well as implementation of mitigation measure **Mitigation Measures HAZ-1 and HAZ-2**, would reduce the likelihood and severity of accidents through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Mitigation Measures				
<p>HAZ-1: Prior to issuance of a grading permit, a soil survey conducted by a licensed professional (retained by the applicant and approved by the City) to determine levels of pesticides and or heavy metals shall be conducted on the site. If pesticide or heavy metal levels are not found on the Project site (or are found below the Environmental Protection Agency (EPA) threshold limits for human exposure), then no additional mitigation is required. However, if pesticide or heavy metal levels exceeding the EPA threshold limits for human exposure are found on site, then Mitigation Measure HAZ-2 would be required.</p> <p>HAZ-2: If the soil survey determines that pesticide or heavy metal levels are found on the Project site that exceed the EPA threshold limits for human exposure, a report of the findings and a Removal Action Plan (RAW) shall be prepared by a qualified licensed professional (retained by the applicant and approved by the City) and submitted to the California Department of Toxic Substances (DTSC) or other appropriate agency for review and approval. The report shall outline the procedures for removing contaminated soils from the Project site down to the level of contamination and for off-site disposal by a licensed contractor at a facility that accepts such contaminated soil. Soil shall not be reused on the Project site and new soil shall be imported from off site and used on the site during Project construction. This measure shall be implemented to the satisfaction of the DTSC and the City of Riverside Community Development Director or designee, and/or Building and Safety Division or designee.</p> <p>Implementation of Mitigation Measures HAZ-1 and HAZ-2 would reduce direct, indirect, and cumulative impacts to less than significant with mitigation incorporated.</p>				
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>9c. Response: (Source: General Plan 2025 Public Safety and Education Elements, GP 2025 FPEIR Table 5.7-D - CalARP RMP Facilities in the Project Area, Figure 5.13-2 – Riverside Unified School District Boundaries, Table 5.13-D Riverside Unified School District Schools, Figure 5.13-3 Alvord Unified School District Boundaries, Table 5.13-E Alvord Unified School District Schools, Figure 5.13-4 – Other School District Boundaries, California Health and Safety Code, Title 49 of the Code of Federal Regulations, California Building Code)</p> <p>Less Than Significant Impact. Martin Luther King High School is located at 9301 Wood Road, approximately 0.38 mile north of the Project site. This is the nearest school to the proposed Project; as such, schools are not within one-quarter mile of the Project site.</p> <p>Although hazardous materials and/or waste generated from the proposed Project (including demolition materials with lead based paint and asbestos containing materials) may pose a health risk to nearby existing or proposed schools, the construction contractor and any other retained construction companies retained for the project that handle hazardous materials are required to comply with the provisions of the City’s Fire Code and any additional regulations as required in the California Health and Safety Code Article 1 Chapter 6.95 for the Business Emergency Plan. Once operational, the residential units within the Project site would more than likely store minimal amounts of hazardous materials (i.e., bleaches, oil, fuel, etc.). Residents would be required to comply with the City’s Fire Code and, if a hazardous waste release occurs, would contact the fire department to secure such releases. If a hazardous release occurs, the amount of release is expected to be nominal and would not affect Martin Luther King High School. Compliance with existing federal and State regulations impacts associated with the exposure of schools to hazardous materials caused by this Project would result in a less than significant impact directly, indirectly, and cumulatively. No mitigation is required.</p>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>9d. Response: (Source: General Plan 2025 Figure PS-5 – Hazardous Waste Sites, GP 2025 FPEIR Tables 5.7-A – CERCLIS Facility Information, Figure 5.7-B – Regulated Facilities in TRI Information and 5.7-C; Department</p>				

of Toxic Substances Control EnviroStor Database Listed Sites <https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=Riverside>

No Impact. A search of the Department of Toxic Substances Control EnviroStor database (on June 26, 2020) and the California Environmental Protection Agency “Cortese List” compiled pursuant to Government Code Section 65962.5 indicated there are no sites of concern regarding hazardous materials on the Project site or in the immediate vicinity of the Project site. In addition, the General Plan 2025 FPEIR (Figure 5.7-1) does not list any hazardous waste sites on or adjacent to the Project site. Therefore, the Project would have **no impact** related to creating any significant hazard to the public or environment due to being located on a recognized hazardous materials site, directly, indirectly, or cumulatively. No mitigation is required.

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



9e. Response: (Source: General Plan 2025 Figure PS-6 – Airport Safety Zones and Influence Areas, RCALUCP and March Air Reserve Base/March Inland Port Comprehensive Land Use Plan (1999), Air Installation Compatible Use Zone Study for March Air Reserve Base (August 2005))

No Impact. The nearest airport to the Project site is the March Air Reserve Base, located approximately 3.98 miles east of the site. Riverside Municipal Airport is located approximately 7.6 miles northwest of the Project site. The proposed Project is located within Zone E Other Airport Environs of the March Air Reserve Base Airport Land Use Compatibility Plan (MARB ALUC). Zone E does not place any restrictions on the development of residential units. The proposed Project is also located outside of the 55 dBA CNEL noise contour of the MARB as described in the MARB ALUC. The Project site is not located within any airport land use plan area or compatibility zone. As such, implementation of the proposed Project would not result in on-site residents or employees on site being affected by a safety hazard or excessive noise from an airport. **No impact** would occur directly, indirectly, or cumulatively with implementation of the. No mitigation is required.

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



9f. Response: (Source: GP 2025 FPEIR Chapter 7.5.7 – Hazards and Hazardous Materials, City of Riverside’s EOP, 2002 and Riverside Operational Area – Multi-Jurisdictional LHMP, 2004 Part 1, and OEM’s Strategic Plan)

Less Than Significant Impact. The proposed project would be constructed and operated in accordance with the City’s Emergency Operations Plan to ensure a coordinated and effective planned response by the City Police and Fire Departments to extraordinary emergency situations and disasters. The proposed Project will comply with the 2019 California Fire Code Section 503-Fire Apparatus Access Roads. Sections 503.1.1 Buildings and Facilities; 503.2.1 Dimensions of the 2019 California Fire Code Section will all be followed in development of the proposed Project.

The majority of the Project site is currently vacant except for a large standing metal building in the northeastern portion of the site. Remnants of a building foundation are also located near the northern boundary of the proposed Project. The site is currently accessible via a dirt access way off Lurin Avenue. The preliminary site plan of the proposed Project shows that the site would be accessed via an improved internal road system off Lurin Avenue and Obsidian Drive. Implementation of the proposed Project would not require construction activities on the off-site roadway system and therefore would not impair the City’s adopted emergency response plan or emergency evacuation plan. Design of the proposed Project would include an internal circulation system developed to City of Riverside Requirements and Riverside Fire Department requirements. If residents need to evacuate the area, they can exit the Project site on either Lurin Avenue or Obsidian Drive, access Taft Street and connect with Van Buren Boulevard, where Interstate 215 can be accessed to exit the region.

The design of the Project would comply with the Riverside Municipal Code Sections 19.100 and 19.780 related to the development standards for a single-family residential units and Planned Residential Development. Prior to the issuance of the final building permit, the City would review site plans for the proposed Project to ensure that design features would not

substantially impair emergency response or emergency evacuation plans of the City. Direct, indirect, and cumulative Project impacts would be **less than significant** and no mitigation is required.

g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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9g. Response: *(Source: General Plan 2025 Figure PS-7 – Fire Hazard Areas, GIS Map Layer Very High Fire Severity Zone 2010, City of Riverside’s EOP, 2002, Riverside Operational Area – Multi-Jurisdictional LHMP, 2004 Part 1/Part 2 and OEM’s Strategic Plan)*

Less Than Significant Impact. The Project site is located in a semi-urbanized portion of Riverside and is not located within a Local Responsibility Area (LRA) Very High or High Fire Hazard Severity Zone nor is it located within a State Responsibility Area (SRA) Very High or High Fire Hazard Severity Zone, as defined by CAL FIRE and the Fire Hazard Severity Zone Map programs. The Project site is approximately 0.29 mile from the closest SRA High Fire Hazard Severity Zone and 1.42 miles from the closest SRA Very High Fire Hazard Severity Zone. The closest LRA Very High Fire Hazard Severity Zone is approximately 1.09 miles northwest of the Project site. The proposed Project would be developed with an internal circulation system consisting of neighborhood streets that would connect to Lurin Avenue and Obsidian Drive. The internal neighborhood streets and access points to the Project site would be developed to meet the minimum roadway widths of Title 18 (Subdivision Code) and the City’s Fire Code Section 503 (California Fire Code 2007). The Fire Code and City of Riverside would also confirm locations of fire hydrants within the Project site to adequately serve the 41 single-family residential units. With implementation of General Plan 2025 policies, compliance with existing codes and standards, and through Fire Department review and approval, impacts from wildland fires due to Project implementation are **less than significant** directly, indirectly, and cumulatively. No mitigation is required.

10. HYDROLOGY AND WATER QUALITY

Would the project:

- a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?



10a. Response: (Source: GP 2025 FPEIR Table 5.8-A – Beneficial Uses Receiving Water; KWC Engineers, Preliminary Hydrology Report, TTM 37733 In the City of Riverside, July 2019, Appendix F; Southeast corner of Lurin and Obsidian Tentative Tract Map 33481, Project Specific Water Quality Management Plan, 6/29/19, Appendix G)

Less Than Significant Impact. The Project is located on 10.06 acres at the southeast corner of Lurin Avenue and Obsidian Drive within the San Ana River Watershed. The Project site is mostly vacant (except for existing concrete foundations, a small outbuilding, and power poles to be relocated) and is completely pervious under existing conditions. Once developed, the proposed Project would increase the impervious surface of the site by 260,286 square feet. The site clearing and grading phases would disturb vegetation and surface soils, potentially resulting in erosion and sedimentation. If left exposed and with no vegetative cover, the site's bare soil would be subject to wind and water erosion. Since the project involves more than one acre of ground disturbance, it is subject to NPDES requirements and must implement an SWPPP. Implementation of site-specific Best Management Practices (BMPs) as established by the SWPPP would ensure all impacts related to erosion and sedimentation from ground disturbance are **less than significant**. No mitigation is required.

The Federal Clean Water Act (CWA) establishes a framework for regulating municipal and industrial (including construction) storm water discharges under the NPDES permit. Section 402(p) of the CWA requires NPDES permits for storm water discharges from Municipal Separate Storm Sewer Systems (MS4), as well as other designated storm water discharges that are considered significant contributors of pollutants. The Santa Ana Regional Water Quality Control Board developed the NPDES Permit and Waste Discharge Requirements (Order No. R8-2010-0033 or MS4 Permit) for the Riverside County Flood Control District and other local agencies. The City is a co-Permittee under this permit.

The City is located within the Riverside County Drainage Area Management Plan (DAMP), which describes a wide range of continuing and enhanced BMPs and control techniques, which are being implemented during the term of the MS4 permit. As the City is an MS4 co-Permittee and because the DAMP addresses the requirements of the to meet MS4 permit conditions, the City is required to enforce and comply with the storm water discharge requirements detailed in the DAMP.

There are no known existing water quality problems associated with the Project site. There are no major drainage improvements on the Project site and storm water runoff drains from the northwest to the northeast across the site.

A preliminary project-specific Water Quality Management Plan (WQMP) has been prepared for the Project per City of Riverside Water Quality Ordinance (Municipal Code Section 14.12.315) requirements. The WQMP identifies one Drainage Management Area (DMA). DMA 1A would drain approximately 470,170 square feet into one bioretention basin (Bioretention Basin 1A) that will be developed on site.

All runoff is conveyed to Reach 1 of Temescal Creek, flowing downstream to Reach 3 of the Santa Ana River, and ultimately into the Pacific Ocean. Reach 1 of Temescal Creek has no Section 303(d) impairments and Reach 3 of the Santa Ana River list pathogens (Bacterial Indicators) as EPA-approved Section 303(D) listed impairments to water quality and are the pollutants of concern of the proposed Project.

To address potential water contaminants, the Project is required to comply with applicable federal, State, and local water quality regulations, including the design and maintenance of the DMA 1A detailed in the Project-specific WQMP described above. The proposed sump basins, to where on-site runoff is designed to flow through DMA 1A, would infiltrate the maximum volume of runoff. Based on calculations from the project-specific WQMP, DMA 1A would collectively manage runoff from 470,170 square feet of the Project site and would require a minimum Design Capture Volume (DCV) of 12,880 cubic feet of runoff. Accordingly, DMA 1A would be treated via infiltration basin with DCV of 12,885 cubic feet (storage and volume retention). The DCV of the proposed BMP bioretention basins treating DMA 1A would satisfy the estimated detention volume

needed post-development for the Project per the preliminary hydrology calculations. According to the preliminary WQMP, the full DCV would be met with the proposed BMP bioretention basins that would treat DMA 1A.

The WQMP would be reviewed and approved as a routine action during the processing of the Project by the City; therefore, it is reasonable that the required measures and features detailed in the WQMP to safeguard water quality would be incorporated into the proposed Project. Given compliance with all applicable federal, State, and local laws regulating surface water quality, the proposed Project as designed is anticipated to result in a **less than significant** impact directly, indirectly, and cumulatively to any water quality standards or waste discharge. No mitigation is required.

b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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10b. Response: (Source: *Western Municipal Water District, 2015 Urban Water Management Plan Update, Table 7-3: Retail Supply and Demand Comparison for a Normal Year; Table 7-4: Wholesale Supply and Demand Comparison for a Normal Year; Table 7-5: Retail Supply and Demand in a Single-Dry Year; Table 7-6: Wholesale Supply and Demand in a Single-Dry Year; Table 7-7 Retail Supply and Demand Comparison in Multiple-Dry Years; Table 7-8: Wholesale Supply and Demand Comparison in Multiple-Dry Years, pgs. 7-5 through 7-7; KWC Engineers, Preliminary Hydrology Report, TTM 37733 In the City of Riverside, July 2019, Appendix F; Southeast corner of Lurin and Obsidian Tentative Tract Map 33481, Project Specific Water Quality Management Plan, 6/29/19, Appendix G*)

Less Than Significant Impact. The Western Municipal Water District (WMWD) provides water to the Project site. Groundwater is a major source of water supply for WMWD and its retail agencies, comprising 13 percent of purchased water and 85 percent of locally produced water, representing 21 percent of WMWD's total supply in 2015. Most groundwater sources available to WMWD are adjudicated or subject to groundwater management plans. There are four primary groundwater basins that supply WMWD, including: Riverside-Arlington Basin (and Arlington subbasin), the Temecula-Murrieta Basin, the San Bernardino Basin Area, and the Chino Basin.

The WMWD's 2015 Urban Water Management Plan estimated a daily per capita water demand of 352 gallons per capita per day.² Implementation of the proposed Project would result in a maximum population of 117 residents (2.8625 persons/household × 41 units), with an estimated water usage of 41,536 gallons per day (0.13 acre-feet/day) or 15,160,640 gallons per year (46.5 acre-feet/year). This represents 0.07 percent of anticipated WMWD's retail water supplies in 2020 (69,718 acre-feet assuming worst-case multiple dry years), a 0.05 percent of anticipated WMWD's retail water supplies in 2040 (90,400 acre-feet assuming worst-case multiple dry years), a 0.03 percent of anticipated WMWD's wholesale water supplies in 2020 (152,491 acre-feet assuming worst-case multiple dry years), and a 0.025 percent of anticipated WMWD's wholesale water supplies in 2040 (184,095 acre-feet assuming worst-case multiple dry years). Sufficient water supplies are available to serve existing and projected future water demand under normal, dry and multiple-dry conditions. Therefore, the proposed Project was found to have a **less than significant impact** directly, indirectly, or cumulatively to groundwater supplies. No mitigation is required.

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:				
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i. Result in substantial erosion or siltation on-or-off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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10i Response: (Source: *KWC Engineers, Preliminary Hydrology Report, TTM 37733 In the City of Riverside, July 2019, Appendix F; Southeast corner of Lurin and Obsidian Tentative Tract Map 33481, Project Specific Water Quality Management Plan, 6/29/19, Appendix G*)

² Western Municipal Water District, *2015 Urban Water Management Plan Update*, Section 5.1 Update of Targets from 2010 UWMP, Table 5-1 Revised SBX7-7 Water Use Targets, page 5-2, June 2016.

Less Than Significant Impact. The Project site is mostly vacant and consists of sparsely vegetated land, occupied by existing concrete foundations, a small outbuilding, and power poles to be relocated. The Project site drains from the northwest to the northeast based on the elevation changes and topography of the site. General sheet flow conditions would be maintained, and the Project site would be designed with infiltration BMP infiltration basins and permeable areas within DMA 1A to ensure runoff from regular rain events are retained on site. The proposed Project would not significantly alter drainage patterns on the site.

The proposed DMA 1A was analyzed to determine if its conveyance of storm water runoff would create a Hydrologic Condition of Concern (HCOC). A HCOC occurs when post-development runoff conditions exceed pre-development runoff conditions, and discharge from the Project site has a flow rate greater than 110 percent of the pre-development two-year peak flow. Generally, projects are exempt from HCOC analysis if (1) they disturb less than one acre; (2) the volume and time of concentration of storm water runoff under post-development conditions are within five percent of pre-development conditions for a two-year return frequency 24-hour storm; or (3) all downstream conveyance channels to an adequate sump (e.g., Santa Ana River) engineered and regularly maintained to ensure design flow capacity, no sensitive stream habitat areas would be adversely affected, or they are not identified on the Co-Permittees Hydromodification Sensitivity Maps. Based on analysis presented in the preliminary WQMP, the Project does create a Hydrologic Condition of Concern and does not qualify for HCOC Exemption 1, 2, or 3. Low Impact Development BMPs would be implemented pursuant to the *Preliminary Water Quality Management* prepared for the Project.

The proposed Project would implement one water quality management plan basin to capture and convey storm water to the detention basin and then off the Project site. Based on calculations from the project-specific *WQMP*, DMA 1A would collectively manage runoff from 286,224 square feet of the Project site and would require a minimum DCV of 12,885 cubic feet of runoff. Accordingly, DMA 1A would be treated via infiltration basin with DCV of 12,880 cubic feet (storage and volume retention). The DCV of the proposed BMP infiltration basins treating DMA 1A would satisfy the estimated detention volume needed post-development for the Project per the preliminary hydrology calculations. According to the preliminary WQMP, the full DCV would be met with the proposed infiltration BMP infiltration basins that would treat DMA 1A.

The WQMP would be reviewed and approved as a routine action during the processing of the Project by the City; therefore, it is reasonable that the required measures and features detailed in the WQMP to safeguard the existing drainage pattern of the site and area would be incorporated into the proposed Project. The project would not have any substantial effects on a stream or river, as none are located on or in close proximity to the Project site. Through compliance with all applicable federal, State, and local laws and regulations, the proposed Project would not alter the existing drainage pattern of an on-site stream. Impacts from substantial erosion or siltation on or off site as a result of altering existing drainage patterns would be **less than significant** directly, indirectly, and cumulatively. No mitigation is required.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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10ii Response: (Source: KWC Engineers, Preliminary Hydrology Report, TTM 37733 In the City of Riverside, July 2019, Appendix F; Southeast corner of Lurin and Obsidian Tentative Tract Map 33481, Project Specific Water Quality Management Plan, 6/29/19, Appendix G)

Less Than Significant Impact. The *Preliminary Hydrology Report* prepared for the proposed Project indicated that the Project site during a 100-year storm event would have a peak flow of 1.50 cubic feet squared less than the existing peak flow. The on-site storm drain system will be privately owned and maintained by the Homeowners Association. Preliminary on-site drainage facilities will be sized to accommodate the anticipated 100-year runoff. Detailed sizing calculations will be provided in the design review and final engineering process for the proposed Project. Mainline pipe sizes will be designed based on the 100-year storm event. Pipes will consist of reinforced concrete pipe or high-density polyethylene while maintaining the hydraulic grade line below the proposed finished surface, with a roughness coefficient of 0.013 per City standards. Hydraulic calculations will be performed in the Final Engineering phase. Catch basins and storm drain laterals will be placed at locations to keep the 10-year flood flow below the top of curb and the 100-year flood flow below the right-of-way. Catch basins will also be placed in various locations within the Project site to collect the runoff and convey the storm flows in underground piping to the appropriate discharge points.

The proposed Project would implement one water quality management plan basin to capture and convey storm water to the detention basin and then off the Project site. Based on calculations from the project-specific *WQMP*, DMA 1A would collectively manage runoff from 286,224 square feet of the Project site and would require a minimum DCV of 12,885 cubic feet of runoff. Accordingly, DMA 1A would be treated via infiltration basin with DCV of 12,880 cubic feet (storage and volume retention). The DCV of the proposed BMP infiltration basins treating DMA 1A would satisfy the estimated detention volume needed post-development for the Project per the preliminary hydrology calculations. According to the preliminary WQMP, the full DCV would be met with the proposed infiltration BMP infiltration basins that would treat DMA 1A.

Through compliance with all applicable federal, State, and local laws and regulations, the proposed Project would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site. Impacts from flooding on or off site as a result of increasing the rate or amount of surface runoff would be **less than significant** directly, indirectly, and cumulatively. No mitigation is required.

iii. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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10iii Response: (Source: KWC Engineers, Preliminary Hydrology Report, TTM 37733 In the City of Riverside, July 2019, Appendix F; Southeast corner of Lurin and Obsidian Tentative Tract Map 33481, Project Specific Water Quality Management Plan, 6/29/19, Appendix G)

Less Than Significant Impact. The CWA delegates authority to the states to issue NPDES permits for discharges of storm water from construction, industrial, and municipal entities to Waters of the United States. The purpose of the California MS4 permit meets the California State Water Resources Control Board's requirements to mitigate for the negative impact of increases in storm water runoff caused by new development and redevelopment. The Project storm water discharge rates cannot exceed the pre-development runoff condition for 2-year 24-hour storm total or the 85th percentile 24-hour storm runoff event to be in compliance with the MS4 post-construction and site design requirements.

The proposed Project would include the development of a water quality management plan basin in Lot D and a detention basin just to its south. These features would help prevent increases in the rate or volume of storm water runoff leaving the site. The Project is over one acre in size and is required to have coverage under the State's General Permit for Construction Activities (SWPPP). As stated in the permit, during and after construction, BMPs would be implemented to reduce/eliminate adverse water quality impacts resulting from development. All impacts related to runoff during site preparation, demolition, and grading would be addressed by the SWPPP. The site has been designed to maximize the landscape areas, thereby minimizing the impervious area to the maximum extent practicable. All runoff from the built Project site would disperse into infiltration basins or adjacent landscape planted areas prior to discharging into off-site storm water drainage infrastructure. The DCV (12,880 cubic feet) of the proposed BMP infiltration basins treating DMA 1A would satisfy the estimated detention volume needed post-development for the Project per the preliminary hydrology calculations. According to the WQMP, the full DCV would be met with the proposed infiltration BMP infiltration and detention basins that would treat DMA 1A.

Any sources of storm water pollution would be addressed through adherence to NPDES permit requirements. Compliance with all applicable federal, State, and local laws and regulations would ensure impacts from generation of runoff water exceeding the capacity of existing or planned storm water drainage systems or contributing substantial additional sources of polluted runoff would be **less than significant** directly, indirectly, and cumulatively. No mitigation is required.

iv. Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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10ivResponse: (Source: Federal Emergency Management Administration FEMA Flood Map Service Center Website <https://msc.fema.gov/portal/home>. Map 06065C0740G)

Less Than Significant Impact. The Flood Insurance Rate Map for the area was reviewed on the Federal Emergency Management Agency website for the Project site. The Project site is located within an unmapped Zone X area (Flood Insurance Rate Map 06065C0740G). Given the existing topography of the Project site, flooding within the Project site is not likely to occur.

Implementation of the proposed Project would not impede or redirect flood flows. Direct, indirect, and cumulative impacts would be less than significant and no mitigation is required.				
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>10d. Response: (Source: GP 2025 FPEIR Chapter 7.5.8 – Hydrology and Water Quality; KWC Engineers, Preliminary Hydrology Report, TTM 37733 In the City of Riverside, July 2019, Appendix F; Southeast corner of Lurin and Obsidian Tentative Tract Map 33481, Project Specific Water Quality Management Plan, 6/29/19, Appendix G)</p> <p>Less Than Significant Impact. The Project site is located inland and no large bodies of water are located within the site’s vicinity; therefore, the potential of tsunamis or seiches affecting the subject site is low. Further, the proposed Project site and its surroundings have generally flat topography and are within an urbanized area not within proximity to Lake Mathews, Lake Evans, the Santa Ana River, Lake Hills, Norco Hills, Box Springs Mountain Area, or any of the nine arroyos that traverse the City and its sphere of influence. The Project site is located in an unmapped Zone X area per Flood Insurance Rate Map 06065C0740G. Given the existing topography of the Project site, flooding within the Project site is not likely to occur. Given the proposed Project’s location and since there are no features nearby that would pose a threat from seiche, tsunami, or flooding, impacts are considered less than significant directly, indirectly, and cumulatively. No mitigation is required.</p>				
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>10e. Response: (Source: KWC Engineers, Preliminary Hydrology Report, TTM 37733 In the City of Riverside, July 2019, Appendix F; Southeast corner of Lurin and Obsidian Tentative Tract Map 33481, Project Specific Water Quality Management Plan, 6/29/19, Appendix G)</p> <p>Less Than Significant Impact. The proposed Project is located within a semi-urbanized portion of the City of Riverside within the Orangecrest Specific Plan area. Since the proposed Project involves more than one acre of ground disturbance, it is subject to NPDES requirements and must implement an SWPPP. Compliance with NPDES and implementation of an SWPPP would ensure the proposed Project does not conflict with or obstruct applicable City water quality control plans. The WQMP would be reviewed and approved as a routine action during the processing of the Project by the City; therefore, it is reasonable that the required measures and features detailed in the WQMP to safeguard the existing drainage pattern of the site and area would be incorporated into the proposed Project.</p> <p>The WMWD’s 2015 Urban Water Management Plan estimated a daily per capita water demand of 352 gallons per capita per day.³ Implementation of the proposed Project would result in a maximum population of 117 residents (2.86 persons/household × 41 units), with an estimated water usage of 41,536 gallons per day (0.13 acre-feet/day) or 15,160,640 gallons per year (46.5 acre-feet/year). This represents 0.07 percent of anticipated WMWD’s retail water supplies in 2020 (69,718 acre-feet assuming worst-case multiple dry years), a 0.05 percent of anticipated WMWD’s retail water supplies in 2040 (90,400 acre-feet assuming worst-case multiple dry years), a 0.03 percent of anticipated WMWD’s wholesale water supplies in 2020 (152,491 acre-feet assuming worst-case multiple dry years), and a 0.025 percent of anticipated WMWD’s wholesale water supplies in 2040 (184,095 acre-feet assuming worst-case multiple dry years). Although a zoning change would occur with implementation of the proposed Project, the General Plan Land Use designation of the site would remain the same. The WMWD’s 2015 Urban Water Management Plan estimated water demand for the City of Riverside is based on land use designations from the City of Riverside General Plan Land Use and Urban Design Element (November 2007). Since the Project site would not result in a General Plan Land Use Change, it can be assumed that the water demand of the Project has been accounted for in the WMWD’s 2015 Urban Water Management Plan. Therefore, implementation of the proposed Project would not conflict with or obstruct implementation of the current groundwater management plan for the City of Riverside. Impacts would be less than significant directly, indirectly, and cumulatively. No mitigation measures are required.</p>				

³ Western Municipal Water District, 2015 Urban Water Management Plan Update, Section 5.1 Update of Targets from 2010 UWMP, Table 5-1 Revised SBX7-7 Water Use Targets, page 5-2, June 2016.

11. LAND USE AND PLANNING

Would the project:

a. Physically divide an established community?

☐☐☐☒

11a. Response: (Source: *General Plan 2025 Land Use and Urban Design Element, Project site plan, City of Riverside GIS/CADME map layers*)

No Impact. The Project site is located within the City of Riverside in the Orangecrest Specific Plan area. Large lot single-family residential units and a single-family residential neighborhood are located north of the site; a recently graded parcel of land being prepared for a development is located east of the site; large lot single-family residential units are located to the south; and a vacant parcel of land for a future City Park is located to the west of the Project site. The site is therefore located in an established semi-urban portion of the City of Riverside. The Project would include an internal circulation system consisting of neighborhood streets that would connect to Lurin Avenue and Obsidian Drive. The Project has been reviewed for consistency with the Zoning Code and to ensure that the requested perimeter setback variance would be consistent and conducive to similar surrounding development. The Project would not include features such as roads (except for internal roads connecting to existing Lurin Avenue and Obsidian Drive), highways, a transit system, or a non-consistent use that would constitute a physical divide in the established community. **No impact** directly, indirectly, or cumulatively to an established community would occur with implementation of the proposed Project. No mitigation is required.

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?

☐☐☒☐

11b. Response: (Source: *General Plan 2025, General Plan 2025 Figure LU-10 – Land Use Policy Map, Table LU-5 – Zoning/General Plan Consistency Matrix, Figure LU-7 – Redevelopment Areas, Title 19 – Zoning Code, Title 18 – Subdivision Code, Title 7 – Noise Code, Title 17 – Grading Code, Title 20 – Cultural Resources Code, Title 16 – Buildings and Construction and Citywide Design and Sign Guidelines*)

Less Than Significant Impact. The existing Riverside General Plan Land Use Designation on the site is Low Density Residential (LDR) and the existing zoning of the site is OSP-RA-SP- Residential Agriculture and Specific Plan (Orangecrest) Overlay Zones. The proposed Project includes cancellation of the Woodcrest Agricultural Preserve No. 3 and active Williamson Act Contract. Upon cancellation of the Agricultural Preserve and Williamson Act Contract, the Project site would revert to the R-1-13000 zone.

The Project proposes 41 single-family residential lots ranging in size from 5,115 square feet to 7,679 square feet with an overall density of 4.08 dwelling units/acre, consistent with the General Plan Low Density Residential Land Use Designation of 3 to 6 dwelling units/acre. Pursuant to Section 19.780.060 of the Municipal Code, the benchmark density for the R-1-13000 Zone is 4.8 dwelling units/acre. The Maximum Density with Bonus density for the R-1-13000 is 5.3 dwelling units/acre. Based on the overall density of the site pursuant to the site plans, the proposed Project would be consistent with the density requirements under Section 19.780.060 of the City of Riverside Municipal Code.

According to the Riverside 2025 General Plan *Land Use and Urban Design Element*, the Project site is located in the Orangecrest Specific Plan. The proposed Project would have to be consistent with applicable objectives and policies of the Orangecrest Specific Plan. The following provides a consistency analysis to show that the proposed Project would be consistent with the Specific Plan's applicable objectives/policies.

Objective LU-75: Manage continued growth of the Orangecrest neighborhood in a manner consistent with the Orangecrest Specific Plan, providing needed infrastructure as land develops.

Consistent: The proposed Project would develop a vacant (underutilized) site within the Orangecrest Specific Plan. The Project would include development of 41 single-family residential units, an internal circulation system, and a common use park. Such design would be consistent with the types of residential neighborhood development that occur within the Specific Plan area. This IS/MND has analyzed the potential impact the Project would have on infrastructure/public services with a determination that utility infrastructure and public services could adequately serve the residents of the

proposed Project without additional staffing, infrastructure, or building development. For these reasons, development of the proposed Project would be consistent with this objective.

Policy LU-75.1: Avoid creating any hindrance to safe operations at the March Air Reserve Base/Inland Port using the Riverside County Airport Land Use Compatibility Plan when reviewing projects within the airport influence area for consistency.

Consistent: The proposed Project is located within Zone E Other Airport Environs of the March Air Reserve Base Airport Land Use Compatibility Plan (MARB ALUC). Zone E does not place any restrictions on the development of residential units. The proposed Project would develop residential units that are no taller than 35 feet in height above ground level (based on the R-1-13000 zone designation standards); as such, the proposed Project would not intrude into FAR Part 77 airspace of the March Air Reserve Base/Inland Port. Furthermore, the Project would not be designed with bright lights facing skyward or reflective material that could interfere with March Air Reserve Base/Inland Port operations. For these reasons, the proposed Project would be consistent with this policy.

Overall, the Project uses would be consistent with uses permitted under the General Plan and the Orangecrest Specific Plan. The project complies with all development standards for Planned Residential Developments, with the exception of the requested variance for a reduced perimeter landscape setback along Lurin Avenue. The Project would also be compatible with surrounding uses. As such, the proposed Project would result in a **less than significant impact** on any applicable land use plan, policy, or regulation directly, indirectly, or cumulatively. No mitigation is required.

12. MINERAL RESOURCES

Would the project:

- a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?

☐☐☐☒

12a. Response: (Source: General Plan 2025 FPEIR – Figure 5.10-1 Mineral Resources)

No Impact. According to General Plan 2025 FPEIR Figure 5.10-1, the Project site is not designated as a Mineral Resource Zone-2 (MRZ-2) or Mineral Resource Zone-3 (MRZ-3). The Project site is designated as a Mineral Resources Zone-4 (MRZ-4). The MRZ-4 designation indicates there is insufficient data to assign any other MRZ designation. The majority of the Project site is undeveloped. Due to the location of the Project site (in a semi-urban area of Riverside and in an MRZ-4), unknown mineral deposits would more than likely not be discovered or disturbed during proposed Project construction activities. As such, implementation of the proposed Project would have a **no impact** on statewide and regional mineral deposits directly, indirectly, or cumulatively. No mitigation is required.

- 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?

☐☐☐☒

12b. Response: (Source: General Plan 2025 FPEIR – Figure 5.10-1 Mineral Resources)

No Impact. Review of the General Plan 2025 FPEIR Figure 5.10-1 indicates there are no mineral resource recovery sites delineated within the City of Riverside. Additionally, as described above in Response 12a, the Project site is not located within MRZ-2 or MRZ-3 areas and implementation of the proposed Project would not result in mineral resource losses. As such, implementation of the proposed Project would have **no impact** on locally-important mineral resources recovery sites directly, indirectly, or cumulatively. No mitigation is required.

13. NOISE

Would the project:

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



13a. Response: (Source: *General Plan 2025 Figure N-5 – 2025 Roadway Noise, Section 5.11 – Noise of the General Plan and Supporting Documents Environmental Impact Report; Project Site Plans; Noise and Vibration Impact Analysis Obsidian Development Project, November 2020, Appendix H*)

Less Than Significant Impact. The construction and operational noise analysis under this response has been provided by the *Noise and Vibration Impact Analysis Technical Report* prepared for the Project in November 2020 (**Appendix H**). Construction and operational noise standards for the City of Riverside are provided by the City of Riverside Noise Element of the General Plan 2025 and the City Municipal Code.

Noise Element of the General Plan 2025: In its land use decisions, the City may consider its noise/land use compatibility guidelines that describe categories of compatibility and not specific noise standards.

These guidelines generally identify conditions where development of a particular use may be “Normally Acceptable,” “Conditionally Acceptable,” “Normally Unacceptable,” or “Conditionally Unacceptable.” The development of infill single residential uses is Normally Acceptable in areas with noise levels of 65 dBA (A-weighted decibel) Community Noise Equivalent Level (CNEL) or less, and Conditionally Acceptable in areas with a noise levels between 65 and 75 dBA CNEL. For Conditionally Acceptable single-family residential uses, new development should only be undertaken after an analysis of noise reduction requirements and identification of noise reduction/insulation features. The City’s General Plan Noise Element requires interior noise levels for new residential development to comply with standards set forth in Title 24 of the State Health and Safety Code, which identifies an interior noise standard of 45 dBA CNEL for residences.

Municipal Code: The purpose of the City’s Municipal Code Noise Ordinance is to control unnecessary, excessive, and/or annoying noises in the City by prohibiting such noise generated by the sources specified in Title 7: Noise Control of the City’s Municipal Code. Based on Sections 7.25.010 and 7.30.015 of the City’s Municipal Code (and as shown in Table E of the *Noise and Vibration Impact Analysis* in **Appendix H**), the maximum exterior noise level for residential uses is 75 dBA maximum noise level (L_{max}) (i.e., 55 dBA plus 20 dBA) during daytime (7:00 a.m. to 10:00 p.m.) hours and 65 dBA L_{max} (i.e., 45 dBA plus 20 dBA) during nighttime (10:00 p.m. to 7:00 a.m.) hours, or the maximum measured ambient noise level for any period of time. Similarly, the maximum interior noise level for residential uses is 55 dBA L_{max} (i.e., 45 dBA plus 10 dBA) during daytime hours and 45 dBA L_{max} (i.e., 35 dBA plus 10 dBA) during nighttime hours, or the maximum measured ambient noise level for any period of time. Section 7.35.020.G, Exemptions, of the City’s Municipal Code Noise Ordinance states that “Noise source associated with construction, repair, remodeling, or grading of any real property; provided a permit has been obtained from the City as required; and provided said activities do not take place between the hours of 7:00 p.m. and 7:00 a.m. on weekdays, between the hours of 5:00 p.m. and 8:00 a.m. on Saturdays, or at any time on Sunday or a federal holiday” are exempt from the noise level limits of the Municipal Code.

Existing Conditions: The Project site is located on the south side of Lurin Avenue between Wood Road and Taft Street in the Orangecrest Specific Plan area of Riverside. Land uses in the vicinity of the Project area include residences and vacant land. Single-family residential units are located north of Lurin Avenue between Taft Street and Wood Road and southeast, south, and southwest of the Project site. The closest single-family residential unit is located north of the site at 18800 Lurin Avenue, approximately 40 feet from the Project site construction boundary.

The primary existing noise sources in the Project area is generated by traffic on Wood Road and Lurin Road, dogs barking, and other typical residential noises. In order to determine the existing ambient noise level in the Project area, two long-term (24-hour) and two short-term (20-minute) noise level measurements were conducted and recorded from February 5 to 6, 2020.

Noise levels from the long-term monitoring ranged between 51.0 to 55.5 dBA CNEL and the calculated CNEL noise level using the long-term measurement results at short-term monitoring locations ranged between 47.9 to 48.6 dBA CNEL.

Existing traffic noise levels were modeled using the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108) to evaluate traffic-related noise conditions along roadway segments in the project vicinity. **Table K: Existing Traffic Noise Levels** shows the existing traffic noise levels on roadways in the Project vicinity and shows the noise level at 50 feet from the centerline of the outermost lanes of the listed roadway segments ranges from 50.1 dBA CNEL to 64.9 dBA CNEL.

Table K: Existing Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 dBA CNEL (ft)	Centerline to 65 dBA CNEL (ft)	Centerline to 60 dBA CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane
Lurin Avenue Between Sagebrush Street and Wood Road	567	<50	<50	<50	50.1
Wood Road Between Lurin Avenue and Mariposa Avenue	8,560	<50	55	119	64.9

Source: Noise and Vibration Impact Analysis Obsidian Development Project, LSA (March 2020)

Note: Traffic noise within 50 feet of the roadway centerline should be evaluated with site-specific information.

ADT = average daily traffic

dBA = A-weighted decibels

CNEL = Community Noise Equivalent Level

ft = foot/feet

Short-Term Construction Noise: Two types of short-term noise impacts could occur during construction on the Project site. First, construction crew commutes and the transport of construction equipment and materials to the site for the proposed Project would incrementally increase noise levels on roads leading to the site. Although there would be a relatively high single-event noise exposure potential causing intermittent noise nuisance (passing trucks at 50 feet would generate up to a maximum of 84 dBA), the effect on longer-term (hourly or daily) ambient noise levels would be small because the hourly/daily construction-related vehicle trips are few when compared to existing hourly/daily traffic volume on Lurin Avenue and Wood Road. The grading phase of construction would generate the most trips out of all of the construction phases at 20 trips per hour and 40 trips per day. Roadways that would be used to access the Project site are Lurin Avenue and Wood Road. Based on **Table K**, Lurin Avenue and Wood Road have estimated existing hourly/daily traffic volumes of 57/567 and 856/8,560, respectively, near the Project site. Based on the information above, construction-related traffic would increase noise by up to 1.3 dBA. A noise level increase of less than 3 dBA would not be perceptible to the human ear in an outdoor environment. Therefore, no short-term construction-related noise impacts associated with worker commute and equipment transport to the Project site would occur. No noise reduction measures are required.

The second type of short-term noise impact is related to noise generated during site preparation, grading, building construction, paving, and architectural coating on the project site. Construction is undertaken in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. Project construction is expected to require the use of graders, bulldozers, and water trucks/pickup trucks. Noise associated with the use of each type of construction equipment for the site preparation phase is estimated to be between 55 dBA L_{max} and 85 dBA L_{max} at a distance of 50 feet from the active construction area. Assuming that each piece of construction equipment operates at some distance from the other equipment, the worst-case combined noise level during this phase of construction would be 88 dBA L_{max} at a distance of 50 feet from the active construction area. Based on a usage factor of 40 percent, the worst-case combined noise level during this phase of construction would be 84 dBA equivalent continuous sound level (L_{eq}) at a distance of 50 feet from the active construction area.

The closest residential property line is located approximately 40 feet from the Project construction boundary and may be subject to short-term construction noise reaching 90 dBA L_{max} (86 dBA L_{eq}) generated by construction activities in the Project area. Ambient noise levels at the project site range between 45.0 to 56.7 dBA L_{eq} based on the long-term noise level measurements. Although the noise generated by Project construction activities would be higher than the ambient noise levels and would result in a temporary increase in the ambient noise levels, construction noise would stop once Project construction

is completed. The proposed Project would be required to comply with the construction hours allowed under the City's Municipal Code Noise Ordinance and standard construction measures listed below:

- During all Project site excavation and grading, the Project contractors shall equip all construction equipment, fixed or mobile, with properly and maintained mufflers consistent with manufacturers' standards.
- The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and most noise-sensitive receptors nearest the Project site during all Project construction.
- The construction contractor shall place all stationary construction equipment so that the emitted noise is directed away from the sensitive receptors nearest the Project site. Sensitive receptors nearest to the Project site include residences to the north, south, and west. The school is located to the west.

With the implementation of the standard construction measures listed above, Project construction noise would not exceed City noise standards for nearby sensitive receptors. Impacts would be **less than significant** and no mitigation measures would be needed.

Long-Term Off-Site Traffic Noise: The FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108) was used to evaluate roadway traffic-related noise conditions along roadway segments in the vicinity of the proposed Project under the following scenarios:

- Existing Year (2020) Traffic Noise Levels Without and With the Project;
- Project Completion (2021) Traffic Noise Levels Without and With the Project; and
- Cumulative (2021) Traffic Noise Levels Without and With the Project.

Noise level increases below 3 dBA would not be perceptible to the human ear in an outdoor environment. Furthermore, an increase or decrease in noise level of at least 5 dBA is required before any noticeable change in community response would be expected.⁴ Therefore, the City's ambient noise threshold is a clearly perceptible increase of 5 dBA in for ambient noise increases to be considered significant.⁵ Tables P and Q in the *Noise and Vibration Impact Analysis* report show that the project-related traffic noise increase would be no greater than 2.5 dBA under all of the scenarios. As such, Project-related traffic noise increases on off-site sensitive receptors would be **less than significant**. No mitigation measures are required.

Long-Term Off-Site Stationary Noise: Adjacent off-site land uses could potentially be exposed to stationary-source noise impacts from the proposed on-site heating, ventilation, and air conditioning (HVAC) equipment.

The proposed Project includes on-site ground-floor HVAC units for each residential unit that could potentially operate 24 hours per day. The HVAC equipment would generate noise levels of 66.5 dBA L_{eq} at 5 feet based on previous measurements conducted by LSA for similar project types. **Table L: HVAC Noise Levels** shows the noise levels generated by HVAC equipment at the property line of the closest off-site land use along with distance attenuation and shielding. As shown in **Table L**, noise levels generated from on-site HVAC units would not exceed the City's exterior daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) 30-minute (L_{50}) noise standards of 55 dBA and 45 dBA, respectively, for residential uses except for the residential units north and south of the Project site.

⁴ Section 5.11 – Noise of the General Plan and Supporting Documents Environmental Impact Report. Page 5.11-26. Albert A. Webb Associates. Certified November 2007.

⁵ *Ibid.*

Table L: HVAC Noise Levels

Land Use	Direction	Reference Noise Level at 5 feet (dBA)	Distance from Source to Off-site Property Line (feet)	Distance Attenuation (dBA)	Exterior Noise Level (dBA L _{eq})	Interior Noise Level (dBA L _{eq})
Residential	North	66.5	55	20.8	45.7	21.7
Residential	Southeast	66.5	185	31.4	35.1	11.1
Residential	South	66.5	40	18.1	48.4	24.4
Residential	Southwest	66.5	110	26.8	39.7	15.7
Residential	Northwest	66.5	95	25.6	40.9	16.9

Source: Noise and Vibration Impact Analysis Obsidian Development Project, LSA (March 2020)

¹ Average distance to the property line of off-site land uses.

Protective Noise Levels (EPA 1978).

dBA = A-weighted decibel

EPA = United States Environmental Protection Agency

HVAC = heating, ventilation, and air conditioning

L_{eq} = equivalent continuous sound level

Although the residential units north and south of the Project site would be exposed to noise levels exceeding the City's exterior nighttime 30-minute noise standard of 45 dBA, the City allows the 30-minute noise standard to reach up to 50 dBA. In addition, interior noise levels generated from on-site HVAC units would not exceed the City's interior daytime and nighttime 30-minute noise standards of 45 dBA and 35 dBA, respectively, for residential uses. Therefore, no off-site noise impacts generated from on-site HVAC equipment would occur. Impacts would be **less than significant** and no mitigation measures are required.

Land Use Compatibility Assessment: The land use compatibility of the Project site was assessed based on the Noise/Land Use Compatibility Criteria in the City of Riverside General Plan Noise Element. Table G of the General Plan Noise Element shows that single-family residential uses are considered "Normally Acceptable" in areas with noise levels of 60 dBA CNEL or less and "Conditionally Acceptable" in areas with a noise levels between 60 and 65 dBA CNEL.

Table M: Cumulative (2021) with Project Exterior Traffic Noise Levels shows the Cumulative (2021) with Project exterior traffic noise levels at the nearest residential property line from the adjacent roadway. As shown in **Table M**, traffic noise levels at the property line of on-site first-row residences range between 48.8 dBA CNEL and 55.1 dBA CNEL, which are "normally acceptable" based on the threshold limits of the City.

Table M: Cumulative (2021) with Project Exterior Traffic Noise Levels

First-Row Residences	Distance from Roadway Centerline to Property Line (feet)	Exterior Noise Level at the Property Line (dBA CNEL)
Lurin Avenue	38	55.1
Wood Road	663	48.8
Obsidian Drive	38	53.1

Source: Noise and Vibration Impact Analysis Obsidian Development Project, LSA (March 2020)

CNEL = Community Noise Equivalent Level

dBA = A-weighted decibels

Based on the United States EPA Protective Noise Levels (1978), standard construction for Southern California (warm climate) residential buildings would provide 12 dBA or more with windows and doors open (the national average is 15 dBA) and 24 dBA or more with windows and doors closed (the national average is 25 dBA). As shown in **Table N: Cumulative (2021) with Project Interior Traffic Noise Levels**, with windows and doors open, first-row residences would not exceed the interior

noise standard of 45 dBA CNEL. Therefore, no interior noise impacts would occur and no noise reduction measures are required.

Table N: Cumulative (2021) with Project Interior Traffic Noise Levels

First-Row Residences	Distance from Roadway Centerline to Building Setback Line (feet)	Exterior Noise Level at the Building (dBA CNEL)	Interior Noise Level with Windows/Doors Open ¹ (dBA CNEL)	Interior Noise Levels with Windows/Doors Closed ² (dBA CNEL)
Lurin Avenue	44	54.2	42.2	30.2
Wood Road	663	48.8	36.8	24.8
Obsidian Drive	59	50.3	38.3	26.3

Source: Noise and Vibration Impact Analysis Tentative Tract Map No. 37732-Barton Development Project, LSA (February 2020)

¹ The interior noise level with windows and doors open was calculated based on an exterior-to-interior noise reduction of 12 dBA based on the EPA Protective Noise Levels (EPA 1978).

² The interior noise level with windows and doors closed was calculated based on an exterior-to-interior noise reduction of 24 dBA based on the EPA Protective Noise Levels (EPA 1978).

CNEL = Community Noise Equivalent Level

dBA = A-weighted decibels

EPA = United States Environmental Protection Agency

In summary, the proposed Project would not result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established by the City of Riverside General Plan or Municipal Code. Impacts would be **less than significant** and no mitigation is required.

b. Result in generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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13b. Response: (Source: *Project Site Plans; Noise and Vibration Impact Analysis Obsidian Development Project, March 2020, Appendix X; Federal Transit Authority's (FTA) Transit Noise and Vibration Impact Assessment Manual*)

Less Than Significant Impact. Vibration refers to groundborne noise and perceptible motion, which is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors, where the motion may be discernable, but without the effects associated with the shaking of a building there is less adverse reaction. The vibration standards included in the Federal Transit Authority's (FTA) *Transit Noise and Vibration Impact Assessment Manual* were used to evaluate operational and construction vibration levels related to Project implementation.

Occupation of the proposed single-family residential units on the site is not expected to generate vibration. In addition, vibration generated from project-related traffic on the adjacent roadways would be unusual for on-road vehicles because the rubber tires and suspension systems of vehicles provide vibration isolation. Therefore, vibration generated from project-related traffic on the adjacent roadways, and Project operation in general, would be **less than significant**.

Table O: Construction Vibration Damage Criteria lists the potential vibration building damage criteria associated with construction activities, as suggested by the *Transit Noise and Vibration Assessment Model* prepared by the FTA. The guidelines in **Table O** show that a vibration level of up to 102 VdB (vibration velocity decibels) is considered safe for buildings consisting of reinforced concrete, steel, or timber (no plaster) and would not result in any construction vibration damage. For non-engineered-timber and masonry buildings, the construction building vibration damage criterion is 94 VdB.

During construction, outdoor site preparation for the proposed Project is expected to require the use of a large bulldozer and loaded trucks, which would generate groundborne vibration of up to 87 VdB and 86 VdB when measured at 25 feet, respectively. **Table P: Summary of Construction Vibration Levels** shows the projected vibration levels from various construction equipment expected to be used on the Project site to the closest sensitive receptors in the Project vicinity.

Table O: Construction Vibration Damage Criteria		
Building Category	PPV (in/sec)	Approximate L_v (VdB)¹
Reinforced concrete, steel, or timber (no plaster) 0.50 102	Reinforced concrete, steel, or timber (no plaster) 0.50 102	Reinforced concrete, steel, or timber (no plaster) 0.50 102
Engineered concrete and masonry (no plaster) 0.30 98	Engineered concrete and masonry (no plaster) 0.30 98	Engineered concrete and masonry (no plaster) 0.30 98
Non-engineered timber and masonry buildings 0.20 94	Non-engineered timber and masonry buildings 0.20 94	Non-engineered timber and masonry buildings 0.20 94
Buildings extremely susceptible to vibration damage 0.12 90	Buildings extremely susceptible to vibration damage 0.12 90	Buildings extremely susceptible to vibration damage 0.12 90

Source: Noise and Vibration Impact Analysis Obsidian Development Project, LSA (March 2020)

¹ RMS VdB 1 µin/sec.

µin/sec. = micro-inches per second

PPV = peak particle velocity

RMS = root-mean-square

L_v = velocity in decibels

in/sec = inches/second

VdB = vibration velocity decibels

Table P: Summary of Construction Vibration Levels

Land Use	Direction	Equipment Activity	Reference Vibration Level (PPV) at 25 feet	Reference Vibration Level (PPV) at 25 feet	Distance (feet)	Maximum Vibration Level (VdB)	Maximum Vibration Level (PPV)
Residential (18800 Lurin Avenue)	North	Large Bulldozers	87	0.089	75	73	0.017
		Loaded Trucks	86	0.076	75	72	0.015
Residential (18870 Doving Lane)	Southeast	Large Bulldozers	87	0.089	80	72	0.016
		Loaded Trucks	86	0.076	80	71	0.013
Residential (18820 Mariposa Avenue)	South	Large Bulldozers	87	0.089	85	71	0.014
		Loaded Trucks	86	0.076	85	70	0.012
Residential (16875 Obsidian Drive)	Southwest	Large Bulldozers	87	0.089	110	68	0.010
		Loaded Trucks	86	0.076	110	67	0.008
Residential (18728 Lurin Avenue)	Southwest	Large Bulldozers	87	0.089	80	72	0.016
		Loaded Trucks	86	0.076	80	71	0.013

Source: Noise and Vibration Impact Analysis Obsidian Development Project, LSA (March 2020)

Note: The FTA-recommended building damage threshold is 94 VdB (0.2 PPV [in/sec]) for building structures constructed of non-engineered timber and masonry.

FTA = United States Federal Transit Administration; in/sec = inches per second; PPV = peak particle velocity; VdB = vibration velocity decibels

All structures surrounding the Project site would experience vibration levels of up to 73 VdB (0.017 PPV [inches/second]) or lower. This vibration level would not result in community annoyance because vibration levels would not exceed the FTA community annoyance threshold of 78 VdB for residential uses during daytime hours. In addition, this vibration level would not have the potential to result in building damage because these buildings were observed to be constructed of non-engineered timber and masonry, and the vibration level would not exceed the FTA vibration damage threshold of 94 VdB (0.2 PPV

[in/sec]). Therefore, no construction vibration impacts would occur during Project construction. No vibration reduction measures are required. Implementation of the proposed Project would not generate construction or operational vibration levels that would exceed threshold standards. Impacts would be **less than significant** and no mitigation measures are warranted.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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13c. Response: *(Source: General Plan 2025 FPEIR Figure 5.11-10 March ARB Noise Contours; Google Earth; Noise and Vibration Analysis (November 2020) Tentative Tract Map No. 37733-Obsidian Development Project LSA, Appendix H)*

No Impact. The nearest airport to the Project site is the March Air Reserve Base, located approximately 3.8 miles east of the site. Review of Figure 5.11-10 in the City's General Plan 2025 FPEIR shows that the Project site is not within any of the noise contours of March Air Reserve Base. Riverside Municipal Airport is located approximately 7.6 miles northwest of the Project site; therefore, the Project site is far enough away to not be affected by this airport's noise contours. Implementation of the proposed Project would not expose on-site construction workers, workers, or residents to excessive noise levels from nearby airport operations. **No impact** directly, indirectly, or cumulatively would occur with Project implementation and no mitigation is required.

14. POPULATION AND HOUSING

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)?

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14a. Response: (Source: General Plan 2025 Table LU-3 – Land Use Designations, FPEIR Table 5.12-A – SCAG Population and Households Forecast, Table 5.12-B – General Plan Population and Employment Projections–2025, Table 5.12-C – 2025 General Plan and SCAG Comparisons, Table 5.12-D - General Plan Housing Projections 2025, Capital Improvement Program and SCAG's Regional Comprehensive Plan (RCP) and RTP)

Less Than Significant Impact. The Project proposes the construction of 41 single-family residential units on a vacant 9.08-acre parcel. The Project is in a semi-urbanized area and would not induce substantial population growth, as the addition of 41 single-family residential units represents approximately 0.034 percent of the projected 118,600 housing units anticipated by 2040 in the SCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) housing projections for 2040. Based on the 2.86 person per household estimated in Riverside in 2019 the proposed Project could increase the City's population by approximately 117 people. **Table Q: SCAG Population Projections** details the 2015 and 2040 population of the City, Riverside County, and the region.

Table Q: SCAG Population Projections

	2015		2040	
	Population	Employment	Population	Employment
City of Riverside	310,700	120,000	386,600	200,500
Riverside County	2,316,438	742,000	3,167,584	1,174,500
SCAG	18,779,123	8,006,030	18,779,123	9,871,441

Source: Tables 8 and 11, Demographic and Growth Forecast, 2016–2040 RTP/SCS, Southern California Association of Governments, December 2015.

SCAG's 2016 RTP/SCS establishes population, housing, and growth trends for the City, Riverside County, and SCAG region. According to the 2016 RTP/SCS, the forecast population for the County of Riverside Sub-region in 2040 is approximately 3,167,584 persons. In 2015, the County of Riverside was reported to have a population of approximately 2,316,438 persons. Therefore, the forecast population for the County of Riverside would grow by approximately 851,146 persons between 2015 and 2040. Based on an anticipated increase of 117 persons, Project residents would account for 0.014 percent of the population growth forecast by SCAG in the County of Riverside between 2015 and 2040.

SCAG foresees that population would increase in the City and region over the next 25 years, and the anticipated rate of population growth in the City (2.4 percent) is roughly similar to that of Riverside County (2.0 percent) and the SCAG region increase in population by approximately 117 persons has been anticipated and planned for in the City's General Plan. Additionally, the Project does not include any significant infrastructure improvements or the extension of roads that could indirectly induce growth in the City. Therefore, this Project would have a **less than significant impact** on population growth directly, indirectly, and cumulatively. No mitigation is required.

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

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14b. Response: (Source: General Plan 2025, General Plan 2025 Housing Element Update 2014 – 2021; California Department of Finance)

No Impact. The Project site is currently vacant except for a concrete foundation from a single-family residential unit that was removed between 2013 and 2014. Once the Project site is developed, a total of 41 single-family residential units would be built on site. The site would be developed at an overall density of 4.08 dwelling units/acre and would include a minimum lot

size of 5,115 square feet and a maximum lot size of 7,679 square feet. The development on the Project site, based on the current person per household estimate in the City, would provide housing for approximately 117 residents.

Implementation of the Project would not displace existing people or housing, necessitating the construction of replacement housing elsewhere as the Project in itself would add needed housing to the City's inventory. **No impact** on housing either directly, indirectly, or cumulatively would occur with Project implementation. No mitigation is required.

15. PUBLIC SERVICES

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a. Fire protection?

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15a. Response: (Source: FPEIR Table 5.13-B – Fire Station Locations, Table 5.13-C – Riverside Fire Department Statistics and Ordinance 5948 § 1)

Less Than Significant Impact. The City of Riverside Fire Department provides fire protection service to the subject site. Fire Station 11, located at 19595 Orange Terrace Parkway, approximately 1.79 miles northeast of the site, would be the closest fire station serving the proposed Project. The City's Fire Department policy states that stations would be located and staffed in such that an effective response force of 4 units with 12 personnel minimum shall be available to all areas of the City within a maximum of 10 minutes (total response time).

Implementation of the proposed Project would add 117 residents to the City of Riverside; however, this increase in residents is accounted for in the General Plan 2025 Land Use Plan and the development density of the site would be consistent with City Zoning Development Standards. The operation of the City's Fire Department would continue to provide adequate service as the City develops to its buildout potential.

Implementation of the proposed Project would generate an incremental increase in the demand for fire protection services; however, the increase in population would be limited by density development standards per the City's Zoning Code and would not demand an increase in fire service such that new or expanded facilities would be needed.

The proposed Project would implement General Plan 2025 policies pertaining to fire protection, comply with existing codes and standards (California Fire Code and Riverside Municipal Code Section 16.32.10) and comply with Chapter 16.52.010 of the City's Municipal Code pertaining to the payment for development fees to be utilized for the purchase of land for and the construction of fire stations and the acquisition of equipment and furnishings to equip fire stations. The Project's final development plan would also be reviewed and approved by the City's Fire Prevention Bureau. With these standard measures implemented, the proposed Project would generate a **less than significant impact** on Riverside's fire protection services. No mitigation is required.

b. Police protection?

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15b. Response: (Source: General Plan 2025 Public Safety Element pgs. 34-39; Project Set Plan; City of Riverside, Riverside Police Department, Operations, Website: <https://www.riversideca.gov/rpd/about-contact/operations/field-operations/about>, Accessed January 22, 2021)

Less Than Significant Impact. The Riverside Police Department (RPD) provides law enforcement services to the City of Riverside and the Project site. The Magnolia Neighborhood Policing Center, opened in 2006 at 10540-B Magnolia Avenue, approximately 9.5 miles northwest of the Project site, is the base of operations for Central and West Neighborhood Policing Center Field Operations, Central and Special Investigations, Special Operations, Central and Special Investigations, Special Operations, Policing, Training, and the Record Bureau. The RPD employs 130 sworn officers, 24 Sergeants, 6 Lieutenant Watch Commanders, 1 Executive Lieutenant, 1 Traffic Lieutenant, and civilian support staff. As part of the Riverside Renaissance Initiative, a new Public Safety Administrative building, 911 Dispatch and Data Center and Neighborhood Police Center are proposed in the future.

Implementation of the Project would add 117 residents to the existing population of the City. Residential development, such as that proposed by the Project, typically generates calls for law enforcement service due to residential break-ins, vehicle burglaries and break-ins, and general disturbances. The design of the proposed Project would include a 6-foot tall perimeter

wall, exterior building lighting, and street lighting, all considered features of Crime Prevention through Environmental Design technique, to reduce on-site crime and thus reduce law enforcement calls of service to the Project site.

An incremental increase in law enforcement calls to the Project site could occur; however, such calls would be consistent to the types of calls RPD responds to at similar residential developments within the City. Implementation of the Project would not degrade the RPD's performance to the point that a new facility or expansion of an existing facility would be needed. With implementation of General Plan 2025 policies, compliance with existing codes and standards, and through Police Department practices, there would be a **less than significant impact** on the demand for additional law enforcement facilities of services either directly, indirectly, or cumulatively. No mitigation is required.

c. Schools?

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15c. Response: (Source: California Department of Education, <https://www.cde.ca.gov/ds/sd/cb/dataquest.asp>; General Plan 2025 Final EIR, Section 5.13 Public Services pgs. 5.13-8 to 5.13-14)

Less Than Significant Impact. The proposed Project is located within the Riverside Unified School District (RUSD), which had a 2019–2020 total enrollment of 41,617 students. The following schools within the RUSD would provide education services to students of the proposed Project:

- Mark Twain Elementary School is located at 19411 Krameria Avenue, approximately 0.94 mile east of the Project site. This school had a 2019–2020 enrollment of 1,068 students.
- Frank Augustus Miller Middle School is located at 17925 Krameria Avenue, approximately 0.95 mile west of the Project site. This school had a 2019–2020 enrollment of 1,035 students.
- Martin Luther King High School is located at 9301 Wood Road, approximately 0.62 mile north of the Project site. This school had a 2019–2020 enrollment of 3,058 students.

According to the Final EIR of the General Plan 2025, RUSD contains many schools that are near or over capacity and are located in areas where vacant land to expand is not available. The school district is in need of new elementary and high school sites to meet the needs of the projected student population within its district as the City of Riverside reaches full buildout. Table 5.13-G in the Final EIR of the General Plan 2025, indicates that the maximum with PRD development buildout of land within the RUSD boundary would generate 136,716 students. Based on the student generation factor of RUSD, the proposed Project is estimated to generate 29 students (0.70×41 residential units) who would attend schools within RUSD. The total students generated includes 15 elementary school students (0.38×41 residential units), 5 middle school students (0.11×41 residential units), and 9 high school students (0.21×41 residential units). It should be noted, the generation of students for the Project site has been anticipated in the Riverside General Plan 2025 based on the site's existing land use and zoning designations.

The Project applicant would be required to pay RUSD impact fees for new residential construction and, pursuant to Government Code Section 65995, such impact fee payment would offset potentially significant impacts to school facilities due to Project implementation. Project impacts would be **less than significant** and no mitigation is required.

d. Parks?

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15d. Response: (Source: General Plan 2025 Figure PR-1 – Parks, Open Spaces and Trails, Table PR-4 – Park and Recreation Facilities, Parks Master Plan 2003, GP 2025 FPEIR Table 5.14-A – Park and Recreation Facility Types; Project Site Plan)

Less Than Significant Impact. Bergamont Park, located at 19275 Bergamont Drive, is the closest park to the Project site (1.29 miles). This park is approximately 5.32 acres and includes the following amenities: basketball half courts, playground, picnic tables, and exercise course. Mission Ranch Park, a 12.6-acre future City-owned park, will be developed on the southeast corner of Obsidian Drive and Lurin Avenue. This park is proposed to have multipurpose fields, a playground, and picnic tables.

The General Plan EIR indicates that the City currently has a parkland to population ratio standard of 3 acres per 1,000 population. The proposed Project will develop 41 residential units and, if fully occupied, would house 117 residents. The City

of Riverside, through the zoning code, requires residential development projects to include park areas equating to 500 square feet per planned residential unit. As such, the proposed Project would require the development of 20,500 square feet of park/open space within its boundaries.

The proposed Project, consistent with Zoning development standards, would include the development of park space with a variety of amenities in one location within the site. The park would equate to approximately 20,574 square feet of land and would include BBQ facilities, picnic tables, tot play areas, rubberized walking paths, turf play areas, and a dog run. As such, the proposed Project would exceed the park requirement standards as set forth by the City of Riverside development standards.

The population generated by proposed Project has the potential to incrementally increase the use of off-site nearby parks; however, such use would be nominal due to the fact that the project would provide parkland as part of its design. Furthermore, the Project applicant would be required to pay parkland development impact fees for regional parks, local parks, and aquatics facilities to ensure that enough parkland is provided to residents in the City of Riverside. The proposed Project would not generate the need to develop new parks or expand existing parks within the City. Project impacts would be **less than significant** and no mitigation is required.

e. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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15e. Response: (Source: General Plan 2025 Figure LU-8 – Community Facilities, FPEIR Figure 5.13-5 - Library Facilities, Figure 5.13-6 - Community Centers, Table 5.3-F – Riverside Community Centers, Table 5.13-H – Riverside Public Library Service Standards)

Less Than Significant Impact. The City of Riverside provides library services to its residents through a Main Library located at 3581 Mission Inn Avenue and six branch libraries (Arlington Neighborhood Library, Casa Blanca Family Learning Center, Marcy Branch, La Sierra Neighborhood Library, Orange Terrace Library, and Eastside Library and Cybrary) located throughout the City. The City of Riverside Public Library System provides over 600,000 books and other library materials to residents in the City. The Woodcrest Community Library, located at 16625 Krameria Avenue (approximately 2.3 miles west of the Project site), is the closest library that would serve residents occupying the Project site.

Community centers, senior centers, and service centers are other public facilities provided by the City to provide various services to residents. The centers offer a wide range of services that include computer training, English as a second language classes, fitness and wellness programs, early childhood programs, aquatics, social recreation programs, specialty classes, sports programs, field trips, and a variety of cultural and holiday activities. Ysmael Villegas Center, located at 7260 Marguerita Avenue, is the closest community center that would serve Project residents; the Cesar Chavez Center, located at 2060 University Avenue, is the closest service center that would serve Project residents; and Janet Goeske Senior Center, located at 5257 Sierra Avenue, is the closest senior center that would serve project residents.

The population increase generated by the proposed Project would result in an incremental increase in the use of public libraries and other public facilities. However, this increase would be nominal and would not require the construction of new public facilities or expansion of existing public facilities. Project impacts would be **less than significant** and no mitigation is required.

16. RECREATION

Would the project:

- a. 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?

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16a. Response: (Source: General Plan 2025 Figure PR-1 – Parks, Open Spaces and Trails, Table PR-4 – Park and Recreation Facilities, Figure CCM-6 – Master plan of Trails and Bikeways, Parks Master Plan 2003, FPEIR Table 5.14-A – Park and Recreation Facility Types, and Table 5.14-C – Park and Recreation Facilities Funded in the Riverside Renaissance Initiative, Table 5.14-D – Inventory of Existing Community Centers, Riverside Municipal Code Chapter 16.60 - Local Park Development Fees, Bicycle Master Plan May 2007)

Less Than Significant Impact. Bergamont Park, located at 19275 Bergamont Drive, is the closest park to the Project site (1.29 miles). This park is approximately 5.32 acres and includes the following amenities: basketball half courts, playground, picnic tables, and exercise course. Mission Ranch Park, a 12.6-acre future City-owned park, will be developed on the southeast corner of Obsidian Drive and Lurin Avenue. This park is proposed to have multipurpose fields, a playground, and picnic tables. As detailed in Figure 5.14-2 Trails Map of the General Plan 2025 FPEIR, the closest trail to the Project site is designated as a City of Riverside Trail along Wood Road. As population increases in the City of Riverside, the need for park and other recreational facilities rises due to the additional strain on upkeep and maintenance that is required from the City.

The proposed Project would include the development of 20,574 square feet of park space on site, which includes BBQ facilities, picnic tables, tot play areas, rubberized walking paths, turf play areas, and a dog run. The amount of park space provided would exceed the 20,500 square feet of common usable open space/recreational facilities space required by Section 19.780.060 of the Riverside Municipal Code. The Project features would help in reducing increased uses and deterioration of existing City recreational amenities as residents would be more apt to use the on-site facilities. In addition, as a condition of approval, the Project applicant would be required to pay parkland development impacts fees for regional parks, local parks, and aquatics facilities, which would help in maintaining recreation amenities within the City.

As the Project will include on-site recreational amenities and pay parkland development impact fees as a condition of approval, implementation of the proposed Project would not increase the use or deterioration of the City's recreational amenities. Direct, indirect, or cumulative impacts would be **less than significant** and no mitigation is required.

- b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

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16b. Response: (Source: Project Site Plan, General Plan 2025 Figure PR-1 – Parks, Open Spaces and Trails, Table PR-4 – Park and Recreation Facilities, Figure CCM-6 – Master plan of Trails and Bikeways, Parks Master Plan 2003, FPEIR Table 5.14-A – Park and Recreation Facility Types, and Table 5.14-C – Park and Recreation Facilities Funded in the Riverside Renaissance Initiative, Table 5.14-D – Inventory of Existing Community Centers, Riverside Municipal Code Chapter 16.60 - Local Park Development Fees, Bicycle Master Plan May 2007)

Less Than Significant Impact. The proposed Project would include the development of 20,527 square feet of park space on site, which includes BBQ facilities, picnic tables, tot play areas, rubberized walking paths, turf play areas, and a dog run. The amount of park space provided would exceed the 20,500 square feet of common usable open space/recreational facilities space required by Section 19.780.060 of the Riverside Municipal Code. The park space of the proposed Project would be developed in accordance with the City's General Plan 2025, Park and Recreation Master Plan, and all other applicable local, State, and/or federal regulatory requirements. As the Project includes recreational amenities within the on-site park that would be used by the Project residents, the use of off-site City-owned recreational facilities would be minimal compared to existing conditions, and would not necessitate expansion solely due to Project implementation. Direct, indirect, and cumulative project impacts would be **less than significant** and no mitigation is required.

17. TRANSPORTATION

Would the project:

a. Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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17a. Response: (Source: LSA, *Obsidian Residential Project Trip Generation Memorandum, March 6, 2020*; City of Riverside *Traffic Impact Analysis Preparation Guide April 2019*)

Less Than Significant Impact. The City of Riverside *Traffic Impact Analysis Preparation Guide* indicates that land uses that generate between 50 and 100 peak hour trips are required to prepare a focused traffic impact analysis to determine if the local circulation system would be affected by a specific project. A memorandum titled *Obsidian Residential Project Trip Generation* was prepared for the proposed Project in March 2020 to determine whether a focused Traffic Operational Analysis was required for the proposed Project. The proposed Project was determined to generate 31 trips the a.m. peak hour, 40 trips during the p.m. peak hour, and 387 daily trips. Since the proposed Project will generate fewer than 50 peak hour trips, a focused Traffic Operational Analysis is not required and it can be assumed that the level of service for local street segments and intersections would not be degraded with implementation of the proposed Project.

Under the proposed Project, improvements will only occur on the site. No improvements to the local transit system or bicycle and pedestrian facilities off of the Project site will occur. The internal circulation system on the Project site will be developed to be consistent with City of Riverside and Riverside Fire Department roadway width requirements as part of the conditions of approval of the Project. Sidewalks will be installed along the internal street system to promote pedestrian movement. As bicycle lanes will not be developed on the internal roads of the Project site, bicyclists will be able to share the road with vehicles.

Overall, implementation of the Project would not conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Impacts would be **less than significant** and no mitigation is required.

b. Would the project conflict or be inconsistent with <i>CEQA Guidelines</i> Section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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17b. Response: (Source: LSA, *Obsidian Residential Project Vehicle Miles Traveled Analysis, March 12, 2021*)

Less Than Significant with Mitigation Incorporated. On December 28, 2018, the California Office of Administrative Law cleared the revised *CEQA Guidelines* for use. Among the changes to the guidelines was removal of vehicle delay and level of service from consideration under CEQA. With the adopted guidelines, transportation impacts were required to be evaluated based on a project's generation of vehicle miles traveled (VMT). The City of Riverside adopted new VMT analysis guidelines in July 2020; therefore, all projects where environmental documentation was commenced after July 2020 needed to be analyzed and compliant with the City's *Draft Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment*. The City's VMT analysis guidelines requires the proposed Project's VMT per capita to be compared with the jurisdictional VMT per capita to determine VMT impacts.

Based on the City's VMT analysis guidelines for residential development projects, the threshold for determining VMT impacts is 15 percent below the City's current baseline VMT per capita under baseline (2012) and cumulative (2040) conditions. **Table R: Baseline (2012) and Cumulative (2040) Jurisdictional and Project VMT per Capita Comparison** shows the Project's VMT under baseline (2012) and cumulative (2040) conditions compared to the VMT of the City of Riverside under the same conditions.

As shown in **Table R**, the Project's VMT per capita exceeds the City's VMT per capita during baseline (2012) and cumulative (2040) conditions by 99 percent and 83 percent, respectively. As such, based on the City's VMT analysis guidelines, the proposed Project would have a significant VMT impact under both baseline and cumulative conditions. However, in

coordination with the City of Riverside staff, mitigation measure strategies were explored to reduce the Project's impact pertaining to VMT.

Table R: Baseline (2012) and Cumulative (2040) Jurisdictional and Project VMT per Capita Comparison

Analysis Scenario	City of Riverside (miles)	Project (miles)	Percentage Difference
Baseline (2012)	10.8	21.5	+ 99%
Cumulative (2040)	10.6	19.4	+ 83%

Source: LSA, TTM37731 Cole Development Project Vehicle Miles Traveled Analysis, November 25, 2020.

When a lead agency, under CEQA, identifies a significant impact, the agency must identify feasible mitigation measures in order to avoid or substantially reduce such an impact. VMT impacts require mitigation of regional impacts through more behavioral changes. Enforcement of mitigation measures are subject to the mitigation monitoring requirements of CEQA, as well as the regular police powers of the lead agency (in this case the City of Riverside). These measures can also be incorporated as part of plans, policies, regulations, or project design features. In general, transportation demand management (TDM) actions, active transportation amenities, and other measures to reduce the number of trips creating an impact are possible VMT mitigation strategies.

The City's baseline and future VMT per capita was compared to the Riverside County Transportation Analysis Mode (RIVTAM) and it was determined that the City's cumulative VMT per capita would be lower compared to the baseline VMT per capita. Lower VMT per capita for the City in the forecast scenario is possible due to multiple factors such as improvements in land use densities, mix of land uses, and non-drive alone mode shares. The City's investment in active transportation projects is one of the contributors toward the decrease in the City's drive alone mode share and thus, decrease in the VMT per capita metric. Since the proposed Project is consistent with the City's General Plan, the Project's fair-share contribution toward these active transportation improvements can be considered as an appropriate VMT mitigation measure.

At present, the City of Riverside does not have a mitigation bank where all the General Plan improvements are researched and documented; however, City staff has a list of bicycle and pedestrian improvement projects that are anticipated to be completed in the future pursuant to the City of Riverside Active Transportation Master Plan. The total cost of these improvements was calculated and the Project's fair-share contribution toward these improvements was determined. Based on the total VMT Growth in the City under baseline (2012) and cumulative (2040) conditions totaling 2,998,673 miles compared to the proposed Project's VMT of 3,605 miles, a Project Fair Share of 0.12 percent was calculated for the proposed Project. Implementation of **Mitigation Measure TRA-1** would require the Project applicant to pay their fair share toward the City's bicycle and pedestrian projects and mitigation bank study to reduce Project impacts associated with VMT generation.

Mitigation Measure

TRA-1: The Project applicant shall pay their Project Fair-Share fee of 0.12 percent of the \$61,583,924.03 total cost toward the City's bicycle and pedestrian projects, which will be used to develop a Vehicle Miles Traveled mitigation bank study. This fee shall be paid the earlier of one (1) year after entitlement approval or prior to issuance of grading permit. The Project Fair-Share Cost equates to \$74,036.10 and shall be paid to the City of Riverside by the Project applicant.

Implementation of **Mitigation Measure TRA-1** would ensure that any potential impacts to Project-related VMT generation would be **less than significant with mitigation incorporated**.

c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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17d. Response: (Source: Project Plan Set, City of Riverside Zoning Code, General Plan 2025)

No Impact. The design of the proposed Project does not include any geometric design features or incompatible uses that could substantially increase hazards. The proposed Project would develop a neighborhood consisting of 41 single-family residential units on varying sized lots, an internal circulation system (neighborhood roads), one common use park, one lot occupied by a water quality management basin, and five lots occupied by slopes. The design of the Project, through review of the Project Plan Set, does not include abnormal development that would increase hazards related to traffic. The internal circulation of the site would be consistent with similar developments in the City and would allow parking (driveway and on-street) and access for residents. Building setbacks would be consistent with the development standards of the PRD and the variance and would not block line of sight views for vehicles exiting the site onto Lurin Avenue and Obsidian Drive. Implementation of the proposed Project would not substantially increase hazards due to a geometric design feature or incompatible use. No direct, indirect, or cumulative impacts would occur with implementation of the Project. **No impact** would occur and no mitigation is required.

d. Result in inadequate emergency access?

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17e. Response: (Source: Project Plan Set – Project Site Plan; 2019 California Fire Code Sections 503.1.1, 503.2.1, 506.1, and 503.6; General Plan 2025; City of Riverside Fire Department)

Less Than Significant Impact. The proposed Project would comply with the 2020 California Fire Code Section 503-Fire Apparatus Access Roads. Sections 503.1.1 Buildings and Facilities; and 503.2.1 Dimensions of the 2019 California Fire Code Section would all be followed in development of the proposed Project. During construction, the Project site would remain accessible for emergency vehicles through the on-site dirt roads that connect to Lurin Avenue. The Project Site Plan indicates that access to the Project site, once operational, would be provided via newly constructed on-site roads connecting to Lurin Avenue and Obsidian Drive. The internal circulation system would be designed to a width to accommodate emergency vehicles pursuant to the 2020 California Fire Code requirements and City of Riverside. Prior to Project approval, the Riverside City Fire Department would review the Final Site Plan to ensure adequate emergency access to the site is provided. If additional features are required, the Project would need to incorporate these as conditions of approval.

Based on the design of the Project as shown on the Project Site Plan, compliance with the applicable 2020 California Fire Code, and review and approval by the Riverside Fire Department, the proposed Project would provide adequate emergency access. Direct, indirect, and cumulative Project impacts would be **less than significant** and no mitigation is required.

18. TRIBAL CULTURAL RESOURCES

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or



18a. Response:

Less Than Significant with Mitigation Incorporated. Chapter 532, Statutes of 2014 (i.e., AB 42), requires Lead Agencies evaluate project's potential to impact "tribal cultural resources." Such resources include "[s]ites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources." AB 52 also gives Lead Agencies the discretion to determine, supported by substantial evidence, whether a resource qualifies as a "tribal cultural resource."

Per AB 52 (specifically PRC 21080.3.1), Native American consultation is required upon request by a California Native American tribe that has previously requested that the City provide it with notice of such projects. Pursuant to provisions of AB 52, the City contacted the following Native American Tribes on August 5, 2020:

- Agua Caliente Band of Cahuilla Indians
- Cahuilla Band of Indians
- Gabrieleño Band of Mission Indians – Kizh Nation
- Morongo Band of Mission Indians
- Pechanga Band of Luiseño Indians
- Rincon Band of Luiseño Indians
- Gabrielino-Tongva Tribe (San Gabriel Band of Mission Indians)
- San Manuel Band of Mission Indians
- Soboba Band of Luiseño Indians

The following California Native American tribes, as shown in **Table S: Native American Tribes Consulted**, have requested consultation with the City of Riverside pursuant to Public Resources Code 21080.3.1:

Table S: Native American Tribes Consulted

Tribe	Consultation Date	Consultation Conclusion Date
Agua Caliente Band of Cahuilla Indians	September 14, 2020	May 20, 2021
Pechanga Band of Luiseño Indians	August 27, 2020	April 12, 2021
Rincon Band of Luiseño Indians	August 24, 2020	August 24, 2020
Soboba Band of Luiseño Indians	August 21, 2020	April 5, 2021

Source: City of Riverside, April 2021.

Mitigation Measures TRC-1 through TRC-3 were agreed to during City and Tribal consultation and will be applied to the project. Additionally, at the request of Pechanga Band of Luiseño Indians Lot E, located at the northeast area of the project site is identified as a Conservation Easement for the potential reburial of resources if discovered. **Mitigation Measure CUL-1** will be implemented to reduced impacts to archaeological resources if discovered during project construction activities.

CUL-1: Archaeological and Paleontological Monitoring: At least 30 days prior to application for a grading permit and before any grading, excavation and/or ground-disturbing activities take place, the developer/applicant shall retain a Secretary of

Interior Standards qualified archaeological monitor to monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources.

1. The project archaeologist, in consultation with consulting tribes, the Developer, and the City, shall develop an Archaeological Monitoring Plan to address the details, timing, and responsibility of all archaeological and cultural activities that will occur on the project site. Details in the plan shall include:
 - a. Project grading and development scheduling;
 - b. The development of a schedule in coordination with the developer/applicant and the project archaeologist for designated Native American Tribal Monitors from the consulting tribes during grading, excavation, and ground-disturbing activities on the site, including the scheduling, safety requirements, duties, scope of work, and Native American Tribal Monitors' authority to stop and redirect grading activities in coordination with all project archaeologists;
 - c. The protocols and stipulations that the Applicant, tribes, and project archaeologist/paleontologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits, or nonrenewable paleontological resources that shall be subject to a cultural resources evaluation;
 - d. Treatment and final disposition of any cultural and paleontological resources, sacred sites, and human remains if discovered on the project site; and
 - e. The scheduling and timing of the Cultural Sensitivity Training noted in **Mitigation Measure TRC-3**.

TRC-1 Prior to grading permit issuance, if there are any changes to project site design and/or proposed grades, the Applicant and the City shall contact consulting tribes to provide an electronic copy of the revised plans for review. Additional consultation shall occur between the City, developer/applicant, and consulting tribes to discuss any proposed changes and review any new impacts and/or potential avoidance/preservation of the cultural resources on the project site. The City and the developer/applicant shall make all attempts to avoid and/or preserve in place as many cultural and paleontological resources as possible that are located on the project site if the site design and/or proposed grades should be revised. In the event of inadvertent discoveries of archaeological resources, work shall temporarily halt until agreements are executed with consulting tribe, to provide tribal monitoring for ground disturbing activities.

TRC-2 Treatment and Disposition of Cultural Resources: In the event that Native American cultural resources are inadvertently discovered during the course of grading for this project, the following procedures will be carried out for treatment and disposition of the discoveries:

1. **Consulting Tribes Notified:** within 24 hours of discovery, the consulting tribe(s) shall be notified via email and phone. The developer shall provide the city evidence of notification to consulting tribes. Consulting tribe(s) will be allowed access to the discovery, in order to assist with the significance evaluation.
2. **Temporary Curation and Storage:** During the course of construction, all discovered resources shall be temporarily curated in a secure location on site or at the offices of the project archaeologist. The removal of any artifacts from the project site will need to be thoroughly inventoried with tribal monitor oversight of the process; and
3. **Treatment and Final Disposition:** The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The Applicant shall relinquish the artifacts through one or more of the following methods and provide the City of Riverside Community and Economic Development Department with evidence of same:
 - a. Accommodate the process for on-site reburial of the discovered items with the consulting Native American tribes or bands. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed;
 - b. If reburial is not feasible, a curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79 and therefore will be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records

shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation; and

- c. At the completion of grading, excavation, and ground-disturbing activities on the site, a Phase IV Monitoring Report shall be submitted to the City documenting monitoring activities conducted by the project archaeologist and Native Tribal Monitors within 60 days of completion of grading. This report shall document the impacts to the known resources on the property; describe how each mitigation measure was fulfilled; document the type of cultural resources recovered and the disposition of such resources; provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting; and, in a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. All reports produced will be submitted to the City of Riverside, Eastern Information Center, and interested tribes.

TRC-3: Cultural Sensitivity Training: The Secretary of Interior Standards County certified archaeologist and Native American monitors shall attend the pre-grading meeting with the developer/permit holder's contractors to provide Cultural Sensitivity Training for all construction personnel. This shall include the procedures to be followed during ground disturbance in sensitive areas and protocols that apply in the event that unanticipated resources are discovered. Only construction personnel who have received this training can conduct construction and disturbance activities in sensitive areas. A sign-in sheet for attendees of this training shall be included in the Phase IV Monitoring Report.

With implementation of **Mitigation Measures TRC-1 through TRC-3 and CUL-1**, impacts to tribal cultural resources would be **less than significant**.

- 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.



18b. Response:

Less Than Significant with Mitigation Incorporated. CEQA defines a "historical resource" as a resource that meets one or more of the following criteria: (1) is listed in, or determined eligible for listing in, the California Register of Historical Resources (California Register); (2) is listed in a local register of historical resources as defined in PRC §5020.1(k); (3) is identified as significant in a historical resource survey meeting the requirements of PRC §5024.1(g); or (4) is determined to be a historical resource by a project's Lead Agency (PRC §21084.1 and *State CEQA Guidelines* §15064.5[a]).

A resource may be listed as a historical resource in the California Register if it meets any of the following National Register of Historic Places criteria as defined in PRC §5024.1(C):

- A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- B. Is associated with the lives of persons important in our past.
- C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possess high artistic values.
- D. Has yielded, or may be likely to yield, information important in prehistory or history.

A "substantial adverse change" to a historical resource, according to PRC §5020.1(q), "means demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired."

As detailed in response to Checklist Question 5b, a project-specific cultural resources assessment was conducted for the project site and included archaeological and historical records search, communication with Native American tribal representatives,

and an intensive pedestrian survey of the project site. The records search revealed 34 cultural resources were previously recorded within one mile of the Project site including archaeological (prehistoric bedrock milling slicks and prehistoric bedrock milling stations) and built environment resources. The nearest prehistoric resource is a bedrock milling feature (33-013836/CA-RIV-007563) is approximately 250 feet east of the Project site. No archaeological resources were discovered on the proposed Project site.

Despite the negative testing results, due to poor surface visibility encountered during the survey, the presence of a prehistoric resource within the Project area and more than 34 others within a mile, there is some potential for both surface and subsurface resources to be discovered. **Mitigation Measure CUL-1** will be implemented to ensure archaeological surveying will be conducted during construction and resources that are discovered will be vetted through consulting Native American Tribes. Standard condition of approval for Inadvertent Discovery of Human Remains will be implemented in the event human remains are discovered during Project construction and they are identified as potential Native American remains.

With the implementation of **Mitigation Measure CUL-1** and the standard condition of approval for Inadvertent Discovery of Human Remains, impacts to tribal cultural resources determined significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1 with Native American input would be reduced to **less than significant** levels.

19. UTILITIES AND SYSTEM SERVICES

Would the project:

a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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19a.Response: (Source: General Plan 2025 Table PF-1 – RPU Projected Domestic Water Supply (AC-FT/YR), Table PF-2 – RPU Projected Water Demand, Table PF-3 – Western Municipal Water District Projected Domestic Water Supply (AC-FT/YR), RPU, FPEIR Table 5.16-G – General Plan Projected Water Demand for RPU Including Water Reliability for 2025, Table 5.16-I - Current and Projected Water Use WMWD, Table 5.16-J - General Plan Projected Water Demand for WMWD Including Water Reliability 2025, Table 5.16-K - Estimated Future Wastewater Generation for the City of Riverside’s Sewer Service Area & Table 5.16-L - Estimated Future Wastewater Generation for the Planning Area Served by WMWD, Figure 5.16-4 – Water Facilities and Figure 5.16-6 – Sewer Infrastructure and Wastewater Integrated Master Plan and Certified EIR; Southeast corner of Lurin and Obsidian Tentative Tract Map 33481, Project Specific Water Quality Management Plan, 6/29/19, Appendix F)

Less Than Significant Impact. The Project Site Plans prepared by the applicant indicate that the Western Municipal Water District provides water and sewer service in the vicinity of the site. Electricity and natural gas is provided by Southern California Edison and SoCal Gas, respectively.

Water: A 12-inch water line exists in the westbound lanes of Lurin Avenue and an 8-inch and 10-inch water line exist in the eastbound lanes of Lurin Avenue. The proposed Project would connect to these existing water lines in order to provide both potable water to the Project residents and for Project landscaping. Water distribution lines would be installed and loop through the Project site in order to provide water supply to each of the single-family residential units. Water for landscape irrigation would be separately metered. The necessary on-site water distribution line installation is included as a design feature of the Project and would not result in any physical environmental effects beyond what is analyzed in this environmental document. Off-site improvements to water lines located in the surrounding streets would not be required as the piping is correctly sized to continue to provide adequate water delivery to the Project site. As a condition of approval, the Project applicant would require a will-serve letter from Western Municipal Water District verifying that the Project would be adequately served by the district, prior to final map approval. Implementation of the proposed Project would not require or result in the relocation or construction of new water infrastructure that would cause significant environmental effects. Impacts would be **less than significant** and no mitigation is required.

Wastewater: The Project site is currently served by an existing 8-inch sewer line in the westbound lanes of Lurin Avenue. The proposed Project would include an internal wastewater distribution system connecting the on-site uses to the existing infrastructure in Lurin Avenue. From here, wastewater would be conveyed to either the Western Riverside County Regional Wastewater Authority (WRCRWA) wastewater treatment facility or March Air Reserve Base wastewater treatment facility. The two wastewater treatment plants have a combined capacity of 8.75 million gallons per day (mgd) with the WRCRWA treatment plant designed to have a capacity for 8 mgd. The WRCRWA recently expanded its design capacity up to 14 mgd; as such, both plants currently have a daily intake capacity of 14.75 mgd.

According to the Riverside 2014 Capital Improvement Program and Rate Development Study, the adjusted daily flow of wastewater per equivalent dwelling unit in the City is 206 gallons per day. The proposed Project would include the development of 41 single-family residential units and therefore is estimated to generated 8,446 mgd of wastewater that would be conveyed and treated at the WRCRWA or March Air Reserve Base. Based on the existing daily treatment capacity and inflow of both plants, the Project would be adequately served pertaining to wastewater disposal and conveyance. As part of the Project design, an internal wastewater distribution system would be developed on site; however, such installation would not result in any physical environmental effects beyond those that are analyzed in this environmental document. As part of the Project’s conditions of approval, the applicant would be required to provide sewer-loading calculations to the City to ensure the existing piping is correctly sized to continue to provide adequate service to the Project site. Any required improvements to

the existing piping would occur within City right-of-way or on properties that have already been developed, so no additional physical impacts to the environment are expected. Impacts would be **less than significant** and no mitigation measures are required.

Storm Water: The Project site is currently served by existing storm water drain lines in Lurin Avenue. On-site storm water drainage infrastructure would be developed as part of the Project design in conformance with the Final WQMP Report that will be prepared for the Project. The on-site storm water drainage facilities will connect to existing storm water infrastructure in the City's right-of-way. A WQMP basin and detention basin (totaling 12,916 square feet) will be developed on the Project site within Lot D (southeast corner of the site). Off-site storm water drainage facilities would not need to be upgraded with implementation of the proposed Project as existing off-site infrastructure has enough capacity to accommodate development on the Project site. Implementation of the proposed Project would not require or result in the relocation or construction of new off-site wastewater infrastructure that would cause significant environmental effects. Impacts will be **less than significant** and no mitigation is required.

Electrical/Gas Utilities: The proposed Project would tie into existing electrical and natural gas infrastructure that exists in roads adjacent to the site. Such connections may require trenching on the adjacent roads; however, construction to connect to existing electrical and natural gas infrastructure would be temporary. Implementation of the proposed Project would not require the relocation or construction of new electrical/natural gas infrastructure off site that would cause significant environmental effects. The Project site is occupied by a few utility poles, all of which will be relocated with the input of the various utility providers. Impacts would be **less than significant** and no mitigation is required.

Telecommunications: The proposed Project would tie into existing telecommunication infrastructure that exists in roads adjacent to the site. Such connections may require trenching on the adjacent roads; however, construction to connect to existing telecommunication infrastructure would be temporary. Implementation of the proposed Project would not require the relocation or construction of new telecommunication infrastructure off site that would cause significant environmental effects. Impacts will be **less than significant** and no mitigation is required.

b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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19b. Response: (*Source: Western Municipal Water District, 2015 Urban Water Management Plan Update, Table 7-3: Retail Supply and Demand Comparison for a Normal Year; Table 7-4: Wholesale Supply and Demand Comparison for a Normal Year; Table 7-5: Retail Supply and Demand in a Single-Dry Year; Table 7-6: Wholesale Supply and Demand in a Single-Dry Year; Table 7-7 Retail Supply and Demand Comparison in Multiple-Dry Years; Table 7-8: Wholesale Supply and Demand Comparison in Multiple-Dry Years, pgs. 7-5 through 7-7*)

Less Than Significant Impact. Although the proposed Project is located within the City of Riverside, the WMWD provides water to the Project site. The WMWD would have sufficient water supplies available to adequately serve the Project during normal, dry, and multiple dry year scenarios. The proposed Project would connect to existing water infrastructure to provide the necessary construction and operational water needs of site occupants. The connection point for water lines would be from infrastructure within the Lurin Avenue right-of-way. The WMWD 2015 Urban Water Management Plan Update (UWMP) estimates water supply and demand during normal, dry, and multiple-dry years as shown in **Table T: WMWD Projected Water Supply/Demand (acre-feet/year)**.

The WMWD's 2015 Urban Water Management Plan estimated a daily per capita water demand of 352 gallons per capita per day.⁶ Implementation of the proposed Project would result in a maximum population of 117 residents (2.86 persons/household × 41 units), with an estimated water usage of 41,536 gallons per day (0.13 acre-feet/day) or 15,160,640 gallons per year (46.5 acre-feet/year). This represents 0.07 percent of anticipated WMWD's retail water supplies in 2020 (69,718 acre-feet assuming worst-case multiple dry years), a 0.05 percent of anticipated WMWD's retail water supplies in 2040 (90,400 acre-feet assuming worst-case multiple dry years), a 0.03 percent of anticipated WMWD's wholesale water supplies in 2020 (152,491 acre-feet assuming

⁶ Western Municipal Water District, *2015 Urban Water Management Plan Update*, Section 5.1 Update of Targets from 2010 UWMP, Table 5-1 Revised SBX7-7 Water Use Targets, page 5-2, June 2016.

worst-case multiple dry years), and a 0.025 percent of anticipated WMWD's wholesale water supplies in 2040 (184,095 acre-feet assuming worst-case multiple dry years). As shown in **Table T**, sufficient water supplies are available to serve existing and projected future water demand under normal, dry, and multiple-dry conditions.

Table T: Riverside Projected Water Supply/Demand (acre-feet/year)

Years	Normal Year		Dry Year		Multiple-Dry Year	
	Supply	Demand	Supply	Demand	Supply	Demand
Retail						
2020	69,718	30,814	69,718	30,814	69,718	30,814
2025	76,264	33,714	76,264	33,714	76,264	33,714
2030	79,672	36,415	79,672	36,415	79,672	36,415
2035	92,030	39,170	92,030	39,170	92,030	39,170
2040	90,400	41,704	90,400	41,704	90,400	41,704
Wholesale						
2020	152,491	110,787	152,491	110,787	152,491	110,787
2025	159,389	114,039	159,389	114,039	159,389	114,039
2030	169,372	123,515	169,372	123,515	169,372	123,515
2035	178,155	122,895	178,155	122,895	178,155	122,895
2040	184,095	132,999	184,095	132,999	184,095	132,999

Source: Western Municipal Water District, *2015 Urban Water Management Plan Update*, Table 7-3: Retail Supply and Demand Comparison for a Normal Year; Table 7-4: Wholesale Supply and Demand Comparison for a Normal Year; Table 7-5: Retail Supply and Demand in a Single-Dry Year; Table 7-6: Wholesale Supply and Demand in a Single-Dry Year; Table 7-7 Retail Supply and Demand Comparison in Multiple-Dry Years; Table 7-8: Wholesale Supply and Demand Comparison in Multiple-Dry Years, pgs. 7-5 through 7-7.

Therefore, the proposed Project was found to have a **less than significant impact** on water supplies either directly, indirectly, or cumulatively during normal, dry, and multiple-dry years. No mitigation is required.

- 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?



19c. Response: (Source: FPEIR Figure 5.16-5 - Sewer Service Areas, Figure 5.16-6 -Sewer Infrastructure, Table 5.16-L - Estimated Future Wastewater Generation for the Planning Area Served by WMWD, and Wastewater Integrated Master Plan and Certified EIR)

Less Than Significant Impact. Table 5.16-L of the City of Riverside General Plan FPEIR shows that the future flow per capita of wastewater (2025) would be 96.6 gallons per day. Table 5.16-L indicates that the WMWD Planning Area's population would be 35,841 residents with maximum buildout and Planned Residential Development. The Project's population estimate has been included in this population buildout in the area served by WMWD. As of 2014, the WRCRWA had a daily intake capacity of 14 mgd. In its General Plan analysis, the City evaluated utility demands based on three levels of development ranging from typical growth to the most extreme growth (Typical, Maximum, and Maximum with PRD). According to the General Plan 2025 FPEIR, the WMWD WRCRWA would adequately serve the City under a Typical Growth Scenario, Maximum Growth Scenario, and Maximum w/PRD Scenario through 2025.

With an estimated increase in the City's population by approximately 117 persons, the proposed Project would generate approximately 11,398.8 gallons of wastewater per day or 4,160,562 gallons of wastewater per year. Given the plant's maximum treatment capacity of 14 million gallons per day and a planned expansion of the facility to increase capacity to 32

million gallons per day, the Project would only incrementally increase the demand for wastewater treatment by approximately 0.03 percent (11,398.8/32,000,000).

The proposed Project would connect to the existing municipal water and sewer system via on-site water and sewer lines to be constructed to interconnect to existing lines. The proposed population increase as a result of the proposed Project would not be considered substantial. As a result, the proposed Project would not induce a population increase above that which has been planned for by the City, and the proposed Project would remain consistent with the Typical Growth Scenario of the General Plan 2025 where future wastewater treatment capacity was determined to be adequate (see Table 5.16-L of the Riverside General Plan 2025 FPEIR).

The project would not exceed RWQCB wastewater treatment requirements. The Project is consistent with the General Plan 2025 Typical Growth Scenario where future wastewater generation was determined to be adequate (see Table 5.16-L of the General Plan 2025 Final PEIR). Further, the current Wastewater Treatment Master Plan anticipates and provides for this type of project. For these reasons, Project impacts would be **less than significant** directly, indirectly, or cumulatively. No mitigation is required.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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19d. Response: (Source: FPEIR Table 5.16-A – Existing Landfills and Table 5.16-M – Estimated Future Solid Waste Generation from the Planning Area)

Less Than Significant Impact. Solid waste generated during construction and operation of the proposed Project would be disposed of at the Badlands Landfill, located at 31125 Ironwood Avenue in Moreno Valley. The Badlands Landfill operates Monday through Saturday from 6:00 a.m. to 4:30 p.m. and accepts the following types of waste: agricultural, asbestos, ash, construction/demolition, contaminated soil, dead animals, green materials, industrial waste, inert waste, liquid waste, metals, mixed municipal, sludge (bio solids), tires, and wood waste. Riverside County, in April 2019, circulated a Notice of Intent to adopt an IS/MND for the Badlands Landfill Integrated Project; a project to revise the landfill's Solid Waste Facility Permit to expand operations and capacity. The revised permit would increase the permitted disturbance area of the landfill from 278 acres to 811 acres, which includes expanding the disposal footprint from 150 acres to 396 acres, thereby providing an additional 50 years of needed landfill capacity. The permit would increase the maximum permitted daily tonnage by 500 tons per day, from 4,500 tons per day to 5,000 tons per day. The maximum design capacity of the landfill will increase from 34.4 million cubic yards to 86 million tons (cubic yards not stated), resulting in a new closure date of 2073.⁷

In its General Plan analysis, the City evaluated solid waste generation and disposal based on three levels of development ranging from typical growth to the most extreme growth (Typical, Maximum, and Maximum with PRD). According to the General Plan 2025 FPEIR, the estimated solid waste generation in 2025 under the Maximum with PRD Scenario would be 2,579 tons/day. Construction activities on the Project site would require the demolition of an unoccupied outbuilding and concrete foundations. The demolition debris would be transported off site and disposed of at Badlands Landfill. According to Table 5.16-M of the General Plan 2025 FPEIR, single-family residential units have a solid waste generation factor of 10 pounds per day per dwelling units. Based on this solid waste generation rate, the proposed Project, once operational, is estimated to generate a maximum of 410 pounds per day (0.21 ton per day),⁸ which is well below the maximum permitted daily tonnage accepted by the Badlands Landfill.

Per the California Green Building Code, a minimum of 50 percent of debris would be diverted to a material recycling facility thus reducing the input of solid waste to Badlands Landfill emanating from the proposed Project. Direct, indirect, and cumulative impacts to landfill capacity will be **less than significant** with implementation of the proposed Project. No mitigation is required.

⁷ CEQAnet Web Portal, EA No. 2017-03: Badlands Landfill Integrated Project Notice of Completion, <https://ceqanet.opr.ca.gov/2019049142/2> (accessed July 9, 2019).

⁸ Solid Waste Estimate 10 lbs/day per dwelling unit for single-family residential units × 40 dwelling units = 400 lbs/day or 0.2 ton/day.

e. Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>19e. Response: (Source: California Integrated Waste Management Board 2002 Landfill Facility Compliance Study)</p> <p>No Impact. The California Integrated Waste Management Act under the Public Resource Code requires that local jurisdictions divert at least 50 percent of all solid waste generated by January 1, 2000. The City is currently achieving a 60 percent diversion rate, well above State requirements. In addition, the California Green Building Code requires all developments to divert 50 percent of non-hazardous construction and demolition debris for all projects and 100 percent of excavated soil and land clearing debris for all non-residential projects beginning January 1, 2011. The proposed Project must comply with the City's waste disposal requirements as well as the California Green Building Code and, as such, would not conflict with any federal, State, or local regulations related to solid waste. Therefore, no impact related to solid waste statutes would occur directly, indirectly, or cumulatively with Project implementation. No mitigation is required.</p>				

20. WILDFIRE

If located in or near State Responsibility Areas or lands classified as very high fire hazard severity zones, would the project:

- a. Substantially impair an adopted emergency response plan or emergency evacuation plan?

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20a. Response: (Source: General Plan 2025; Project Set Plans; Riverside Municipal Code Section 9.20.130 and Section 19.100; CAL FIRE Fire Hazard Severity Zone Map Program)

Less Than Significant Impact. The Project site is located in a semi-urbanized portion of Riverside and is not located within a Local Responsibility Area (LRA) Very High or High Fire Hazard Severity Zone nor is it located within a State Responsibility Area (SRA) Very High or High Fire Hazard Severity Zone, as defined by CAL FIRE and the Fire Hazard Severity Zone Map programs. The Project site is approximately 0.29 mile from the closest SRA High Fire Hazard Severity Zone and 1.42 miles from the closest SRA Very High Fire Hazard Severity Zone. The closest LRA Very High Fire Hazard Severity Zone is approximately 1.09 miles northwest of the Project site.

The Project site is currently vacant (except for a foundation from a single-family residential unit) and is currently accessed by existing dirt roads off Lurin Avenue. Implementation of the proposed Project would not require construction activities on the off-site roadway system and therefore would not impair the City's adopted emergency response plan or emergency evacuation plan. Design of the Project would include the development an internal circulation system (residential streets) that would connect to Lurin Avenue and Obsidian Drive.

The design of the Project will comply with the Section 19.780.060 of the Riverside Municipal Code related to the development standards for a Planned Residential Development (PRD) use. Prior to the issuance of the final building permits, the City would review site plans for the proposed Project to ensure that design features would not substantially impair emergency response or emergency evacuation plans of the City. Direct, indirect, and cumulative project impacts would be **less than significant** and no mitigation is required.

- 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?

☐☐☒☐

20b. Response: (Source: CAL FIRE Fire Hazard Severity Zone Map Program)

Less Than Significant Impact. The proposed Project site is located in a semi-urbanized portion of Riverside within an LRA, and is categorized as LRA Non-Wildland/Non-Urban and High Fire Hazard Severity Zone, as defined by CAL FIRE and the Fire Hazard Severity Zone Map program. The proposed Project site is topographically flat and, based on weather conditions, can be exposed to offshore (Santa Ana Winds) or onshore winds, similar to other portions of Riverside. If wildfires occur nearby, there is potential for smoke to drift into the City and increase pollutant concentrations for the residents at the proposed Project site as well as residents in the City. Such conditions would most likely be temporary as fires that produce the smoke are controlled and extinguished. Due to the location of the proposed Project site in a semi-urbanized area, the exposure of Project occupants to uncontrolled spread of a wildfire is high. The City of Riverside has systems in place to protect residents in the event that wildfires are burning outside of the City limits and spreading toward the City.

Implementation of the proposed Project would not exacerbate wildfire risks, exposing Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Direct, indirect, and cumulative Project impacts would be **less than significant** with implementation of the proposed Project. No mitigation is required.

- 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?

☐☐☐☒

20c. Response: (Riverside Municipal Code Section 19.100; Project Set Plans)

No Impact. The proposed Project includes the development of 41 single-family residential units, a park, and an internal circulation system (residential streets), on approximately 10.06 acres of land. The Project would be served by existing infrastructure (roads, natural gas, sewage, electrical and water utilities) and would directly connect to existing utilities already serving the site. The proposed Project would not include the development of infrastructure (roads, fuel breaks, emergency water sources, etc.) that may exacerbate fire risk or cause temporary or ongoing impacts to the environment.

Prior to the issuance of the final building permit, the City would review site plans for the proposed Project to ensure that design features would not exacerbate fire risk. The proposed Project is not anticipated to install or require the maintenance of infrastructure that would exacerbate fire risk; as such, **no impact**, directly, indirectly, or cumulatively would occur. No mitigation is required.

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?

☐☐☐☒

20d. Response: (Source: General Plan 2025, Federal Emergency Management Administration Flood Map Service Center, <https://msc.fema.gov/portal/search#searchresultsanchor>; California Department of Water Resources Division of Safety of Dams California Dam Break Inundation Maps <https://fnds.water.ca.gov/maps/damim/>)

No Impact. The proposed Project is located on a site that is topographically flat (gradual maximum elevation changes on the site of about 30 feet) and is surrounded by land that is topographically flat. A residential neighborhood is located north of the Project site, and large lot single family residential uses are located west and south of the site. Areas to the west of the site are vacant; however, the land east of the Project site is being prepared for development. The closest elevated terrain is the Temescal Mountains (approximately 13 miles southwest of the site); as a result, future residents and the structures on the proposed Project site would most likely not be exposed to significant risks from downslope flooding, landslides, or drainage changes due to wildland fires. The proposed Project site is located in Federal Emergency Management Agency Zone D Area of Undetermined Flood Hazard. The closest Flood Hazard area is Cajalco Creek, which is approximately 3.5 miles southwest of the site.

The Project would not 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** would occur and no mitigation is required.

21. MANDATORY FINDINGS OF SIGNIFICANCE				
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 an endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21a. Response Less Than Significant with Mitigation Incorporated. The proposed Project's impacts to biological and cultural resources were analyzed in this Initial Study and all direct and cumulative impacts were determined to have no impact, a less than significant impact, or rendered a less than significant impact with implementation of mitigation. Therefore, impacts to biological and cultural resources would be less than significant with mitigation incorporated and no additional mitigation is required.				
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.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21b. Response Less Than Significant with Mitigation Incorporated. The expected growth associated with the proposed Project has been previously analyzed under the 2025 General Plan EIR. The 2025 General Plan EIR took into consideration the cumulative impact of buildout of the City (which included development of the Project site under its current land use designation and zoning designation) and determined that cumulative impacts with buildout of the City would be less than significant. The proposed Project, throughout this Initial Study/Mitigated Negative Declaration, has considered all impacts on a project-level analysis. Where impacts were determined to occur, the proposed Project would implement mitigation measures, which would reduce impacts on a project-level basis and would ensure the proposed Project does not cumulatively contribute to impacts discussed under the 2025 General Plan EIR. All cumulative impacts related to these resource topics were less than significant or rendered less than significant with mitigation incorporated .				
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21c. Response Less Than Significant with Mitigation Incorporated. Impacts related to aesthetics, air quality, geology and soils, GHGs, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population and housing, public services, recreation, traffic, utilities and services, and wildfires that could potentially affect human beings directly or indirectly were analyzed in this Initial Study. All direct and cumulative impacts were less than significant or rendered less than significant with mitigation incorporated .				



CITY OF
RIVERSIDE

COMMUNITY & ECONOMIC DEVELOPMENT DEPARTMENT

PLANNING DIVISION

MITIGATION MONITORING AND REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program has been prepared for use in implementing mitigation for the:

Tentative Tract Map No. 37733 – Obsidian Development Project

The program has been prepared in compliance with State law and the Initial Study prepared for the project by the City of Riverside.

CEQA requires adoption of a reporting or monitoring program for those measures placed on a project to mitigate or avoid adverse effects on the environment (Public Resource Code Section 21081.6). The law states that the reporting or monitoring program would be designed to ensure compliance during project implementation.

The monitoring program contains the following elements:

- 1) The mitigation measures are recorded with the action and procedure necessary to ensure compliance. In some instances, one action may be used to verify implementation of several mitigation measures.
- 2) A procedure for compliance and verification has been outlined for each action necessary. This procedure designates who would take action, what action would be taken and when, and to whom and when compliance would be reported.
- 3) The program has been designed to be flexible. As monitoring progresses, changes to compliance procedures may be necessary based upon recommendations by those responsible for the program. As changes are made, new monitoring compliance procedures and records would be developed and incorporated into the program.

This Mitigation Monitoring and Reporting Program includes mitigation identified in the Initial Study.

Tentative Tract Map No. 37733-Obsidian Development Project
Initial Study/Mitigated Negative Declaration: Mitigation Monitoring Reporting Program

Mitigation Measures		Monitoring Timing/ Frequency	Action Indicating Compliance	Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
Biological Resources							
BIO-1	Prior to the commencement of grading activities, the applicant shall make the appropriate mitigation fee payment into the MSHCP Stephens’ kangaroo rat fee payment program for conservation of Stephens’ kangaroo rat-occupied habitats in order to offset the loss of potentially suitable Stephens’ kangaroo rat habitat on site through project implementation.	Prior to grading activities	Confirmation of Payment of Mitigation Fees	City of Riverside			
BIO-2	<p>Prior to on-site vegetation clearance, the Project applicant shall retain a qualified biologist to conduct a pre-construction nesting bird survey in accordance with the following:</p> <ul style="list-style-type: none">• The survey shall be conducted no more than three days prior to the initiation of clearance/construction work.• If pre-construction surveys indicate that bird nests are not present or are inactive, or if potential habitat is unoccupied, no further mitigation is required.• If active nests of birds are found during the surveys, a species-specific no-disturbance buffer zone shall be established by a qualified biologist around active nests until said qualified biologist determines that all young have fledged (i.e., are no longer reliant upon the nest).• It is recommended that close coordination between the developer of the site, the City of Riverside, the project engineer, and the consulting qualified biologist to consider vegetation clearance outside of the normal bird nesting season (usually February 15 through September 15) to avoid impacts to nesting birds that would potentially violate the Migratory Bird Treaty Act. It should be noted that bird nesting season is increasingly less definitive for some year-round resident species, such as hummingbirds and raptors. Further, ground-dwelling birds such as burrowing owls, can be affected nearly any time of the year if present. It is therefore advisable to conduct a pre-construction bird survey no matter the time of year.• Removal of vegetation necessitates installation of appropriate Storm Water Pollution Prevention Plan (SWPPP) measures, particularly if grading is not	Prior to vegetation clearance on site	Survey submittal to City	City of Riverside			

Tentative Tract Map No. 37733-Obsidian Development Project
Initial Study/Mitigated Negative Declaration: Mitigation Monitoring Reporting Program

Mitigation Measures		Monitoring Timing/ Frequency	Action Indicating Compliance	Monitoring Agency	Verification of Compliance		
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	undertaken immediately; therefore, careful timing of the project schedule and implementation measures is necessary to avoid water quality impacts.						
BIO-3	The Project applicant shall retain a qualified biologist to conduct a 30-day pre-construction survey for burrowing owl. The results of the single one-day survey shall be submitted to the City prior to obtaining a grading permit. If burrowing owl are not detected during the pre-construction survey, no further mitigation is required. If burrowing owl are detected during the pre-construction survey, the Project applicant and a qualified consulting biologist will be required to prepare and submit for approval a burrowing owl-relocation program.	Prior to construction activity commencement	Submittal and Approval of Survey	City of Riverside			
BIO-4	In accordance with MSHCP provisions limiting the use of exotic and invasive plant species, the Project's landscape plan shall exclude invasive species such as, but not limited to crimson fountain grass (<i>Pennisetum setaceum</i>), pampas grass (<i>Cortaderia selloana</i>), giant reed (<i>Arundo donax</i>), tree of heaven (<i>Ailanthus altissima</i>), Eucalyptus (<i>Eucalyptus</i> sp.), and other ornamental landscape elements on the list of exotic invasive plants utilized by the Riverside Conservation Authority that have the potential to spread into adjoining, downstream, or nearby areas.	Post-construction activities	Approval of Landscaping Plan	City of Riverside			
Cultural Resources							
CUL-1	<p>Archaeological Monitoring. At least 30 days prior to application for a grading permit and before any grading, excavation, and/or ground-disturbing activities take place, the developer/applicant shall retain a Secretary of Interior Standards-qualified archaeological monitor to monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources.</p> <ol style="list-style-type: none"> 1. The project archaeologist, in consultation with consulting tribes, the Developer, and the City, shall develop an Archaeological Monitoring Plan to address the details, timing, and responsibility of all archaeological and cultural activities that will occur on the project site. Details in the plan shall include: <ol style="list-style-type: none"> a. Project grading and development scheduling; 	Thirty days prior to grading and during grading activity.	Monitoring by Archaeologist and reporting.	City of Riverside			

Tentative Tract Map No. 37733-Obsidian Development Project
Initial Study/Mitigated Negative Declaration: Mitigation Monitoring Reporting Program

Mitigation Measures		Monitoring Timing/ Frequency	Action Indicating Compliance	Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
	<ul style="list-style-type: none"> b. The development of a rotating or simultaneous schedule in coordination with the developer/applicant and the project archaeologist for designated Native American Tribal Monitors from the consulting tribes during grading, excavation, and ground-disturbing activities on the site, including the scheduling, safety requirements, duties, scope of work, and Native American Tribal Monitors' authority to stop and redirect grading activities in coordination with all project archaeologists; c. The protocols and stipulations that the Applicant, tribes, and project archaeologist/paleontologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits, on nonrenewable paleontological resources that shall be subject to a cultural resources evaluation; d. Treatment and final disposition of any cultural and paleontological resources, sacred sites, and human remains if discovered on the project site; and e. The scheduling and timing of the Cultural Sensitivity Training noted in Mitigation Measure TRC-3. 						
Hazards and Hazardous Materials							
HAZ-1	Prior to issuance of a grading permit, a soil survey conducted by a licensed professional (retained by the applicant and approved by the City) to determine levels of pesticides and or heavy metals shall be conducted on the site. If pesticide or heavy metal levels are not found on the Project site (or are found below the Environmental Protection Agency (EPA) threshold limits for human exposure), then no additional mitigation is required. However, if pesticide or heavy metal levels exceeding the EPA threshold limits for human exposure are found on site, then Mitigation Measure HAZ-2 would be required.	Prior to Issuance of Grading Permit.	Soil Survey Submittal to City	City of Riverside			
HAZ-2	If the soil survey determines that pesticide or heavy metal levels are found on the Project site that exceed the EPA threshold limits for human exposure, a report of the findings and a Removal Action Plan (RAW) shall be prepared by a qualified licensed professional (retained by the applicant and approved by the City) and submitted	Prior to Issuance of Grading Permit.	Removal of Contaminated Soil from the Site.	DTSC			

Tentative Tract Map No. 37733-Obsidian Development Project
Initial Study/Mitigated Negative Declaration: Mitigation Monitoring Reporting Program

Mitigation Measures		Monitoring Timing/ Frequency	Action Indicating Compliance	Monitoring Agency	Verification of Compliance		
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	to the California Department of Toxic Substances (DTSC) or other appropriate agency for review and approval. The report shall outline the procedures for removing contaminated soils from the Project site down to the level of contamination and for off-site disposal by a licensed contractor at a facility that accepts such contaminated soil. Soil shall not be reused on the Project site and new soil shall be imported from off site and used on the site during Project construction. This measure shall be implemented to the satisfaction of the DTSC and the City of Riverside Community Development Director or designee, and/or Building and Safety Division or designee.						
Transportation							
TRA-1	. The Project applicant shall pay their Project Fair-Share fee of 0.12 percent of the \$61,583,924.03 total cost toward the City's bicycle and pedestrian projects, which will be used to develop a Vehicle Miles Traveled mitigation bank study. This fee shall be paid the earlier of one (1) year after entitlement approval or prior to issuance of grading permit. The Project Fair-Share Cost equates to \$74,036.10 and shall be paid to the City of Riverside by the Project applicant.	The earlier of one (1) year after entitlement approval or prior to issuance of grading permit	Payment of Fair-Share Fee to City	City of Riverside			
Tribal Cultural Resources							
CUL-1	<p>Archaeological and Paleontological Monitoring: At least 30 days prior to application for a grading permit and before any grading, excavation and/or ground-disturbing activities take place, the developer/applicant shall retain a Secretary of Interior Standards qualified archaeological monitor to monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources.</p> <ol style="list-style-type: none"> 1. The project archaeologist, in consultation with consulting tribes, the Developer, and the City, shall develop an Archaeological Monitoring Plan to address the details, timing, and responsibility of all archaeological and cultural activities that will occur on the project site. Details in the plan shall include: <ol style="list-style-type: none"> a. Project grading and development scheduling; 	Thirty day prior to grading and during grading activity.	Monitoring by Archaeologist and reporting.	City of Riverside			

Tentative Tract Map No. 37733-Obsidian Development Project
Initial Study/Mitigated Negative Declaration: Mitigation Monitoring Reporting Program

Mitigation Measures		Monitoring Timing/ Frequency	Action Indicating Compliance	Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
	<ul style="list-style-type: none"> b. The development of a rotating or simultaneous schedule in coordination with the developer/applicant and the project archaeologist for designated Native American Tribal Monitors from the consulting tribes during grading, excavation, and ground-disturbing activities on the site, including the scheduling, safety requirements, duties, scope of work, and Native American Tribal Monitors' authority to stop and redirect grading activities in coordination with all project archaeologists; c. The protocols and stipulations that the Applicant, tribes, and project archaeologist/paleontologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits, on nonrenewable paleontological resources that shall be subject to a cultural resources evaluation; d. Treatment and final disposition of any cultural and paleontological resources, sacred sites, and human remains if discovered on the project site; and e. The scheduling and timing of the Cultural Sensitivity Training noted in Mitigation Measure TRC-3. 						
TRC-1	Prior to grading permit issuance, if there are any changes to project site design and/or proposed grades, the Applicant and the City shall contact consulting tribes to provide an electronic copy of the revised plans for review. Additional consultation shall occur between the City, developer/applicant, and consulting tribes to discuss any proposed changes and review any new impacts and/or potential avoidance/preservation of the cultural resources on the project site. The City and the developer/applicant shall make all attempts to avoid and/or preserve in place as many cultural and paleontological resources as possible that are located on the project site if the site design and/or proposed grades should be revised. In the event of inadvertent discoveries of archaeological resources, work shall temporarily halt until agreements are executed with consulting tribe, to provide tribal monitoring for ground disturbing activities.	Prior to grading permit issuance.	Contact consulting tribe.	City of Riverside			
TRC-2	Treatment and Disposition of Cultural Resources: In the event that Native American cultural resources are inadvertently discovered during the course of grading for this project, the	During construction	Treatment and Final Disposition	City of Riverside and Consulting Tribe			

Tentative Tract Map No. 37733-Obsidian Development Project
Initial Study/Mitigated Negative Declaration: Mitigation Monitoring Reporting Program

Mitigation Measures		Monitoring Timing/ Frequency	Action Indicating Compliance	Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
	<p>following procedures will be carried out for treatment and disposition of the discoveries:</p> <ol style="list-style-type: none"> 1. Consulting Tribes Notified: within 24 hours of discovery, the consulting tribe(s) shall be notified via email and phone. The developer shall provide the city evidence of notification to consulting tribes. Consulting tribe(s) will be allowed access to the discovery, in order to assist with the significance evaluation. 2. Temporary Curation and Storage: During the course of construction, all discovered resources shall be temporarily curated in a secure location on site or at the offices of the project archaeologist. The removal of any artifacts from the project site will need to be thoroughly inventoried with tribal monitor oversight of the process; and 3. Treatment and Final Disposition: The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The Applicant shall relinquish the artifacts through one or more of the following methods and provide the City of Riverside Community and Economic Development Department with evidence of same: <ol style="list-style-type: none"> a. Accommodate the process for on-site reburial of the discovered items with the consulting Native American tribes or bands. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed; b. If reburial is not feasible, a curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79 and therefore will be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary 		of resources if discovered				

Tentative Tract Map No. 37733-Obsidian Development Project
Initial Study/Mitigated Negative Declaration: Mitigation Monitoring Reporting Program

Mitigation Measures		Monitoring Timing/ Frequency	Action Indicating Compliance	Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
	c. At the completion of grading, excavation, and ground-disturbing activities on the site, a Phase IV Monitoring Report shall be submitted to the City documenting monitoring activities conducted by the project archaeologist and Native Tribal Monitors within 60 days of completion of grading. This report shall document the impacts to the known resources on the property; describe how each mitigation measure was fulfilled; document the type of cultural resources recovered and the disposition of such resources; provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting; and, in a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. All reports produced will be submitted to the City of Riverside, Eastern Information Center, and interested tribes.						
TRC-3	Cultural Sensitivity Training: The Secretary of Interior Standards County certified archaeologist and Native American monitors shall attend the pre-grading meeting with the developer/ permit holder's contractors to provide Cultural Sensitivity Training for all construction personnel. This shall include the procedures to be followed during ground disturbance in sensitive areas and protocols that apply in the event that unanticipated resources are discovered. Only construction personnel who have received this training can conduct construction and disturbance activities in sensitive areas. A sign-in sheet for attendees of this training shall be included in the Phase IV Monitoring Report.	Prior to Grading Activities	Completion of Cultural Sensitivity Training	City of Riverside			

Appendix A:
Project Plan Sets

Appendix B:
Air Quality and Greenhouse Gas Impact Analysis

Appendix C:
MSHCP Consistency Analysis and General Biological Assessment
Step I Habitat Assessment, Step II, Part A Focused Burrow Survey and Step II,
Part B Focused Burrowing Owl Survey
Burrowing Owl Update Report

Appendix D:
Cultural Resource Assessment

Appendix E:
Preliminary Geotechnical Investigation and Percolation Testing

Appendix F:
Preliminary Hydrology Report

Appendix G:
Water Quality Management Plan Report

Appendix H:
Noise and Vibration Impact Analysis

Appendix I:
Trip Generation Memorandum

Appendix J:
VMT Memorandum